Global Competency and Outcomes Framework for Universal Health Coverage

World Health Organization

Global Competency and Outcomes Framework for Universal Health Coverage

World Health Organization

Global Competency and Outcomes Framework for Universal Health Coverage

ISBN 978-92-4-003466-2 (electronic version)
ISBN 978-92-4-003467-9 (print version)

Suggested citation. Global Competency and Outcomes Framework for Universal Health Coverage. Geneva: World Health Organization; 2022. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Design: L'IV Com Sàrl

Contents

Foreword v

Acknowledgements vi

Abbreviations ix

Glossary x

Executive summary xv

1. Introduction 1

1.1 Health workforce as an enabler of universal health coverage (UHC) 1
1.2 Competency-based education: the foundation for training health workers to address population health needs 2
1.3 Aims of the Global Competency and Outcomes Framework for UHC 5
1.4 Methodology 7
1.5 Conceptual framework 9

2. Competencies for universal health coverage (UHC) 13

2.1 Using competencies to define competency-based standards 14
2.2 Competencies for universal health coverage: overview 16
2.3 Competencies and behaviours for UHC 17

3. Practice activities: an organizing framework for integrating competencies into outcomes-based curricula 23

3.1 Curricular guides for practice activities 24
3.2 Practice activities for universal health coverage: overview 26

4. Contextualizing the Global Competency and Outcomes Framework for UHC for competency-based education 69

4.1 Contextualizing the Global Competency and Outcomes Framework for UHC for a specific context, set of services or occupational group 69
4.2 Developing competency-based curricula from competency-based outcomes (standards) 79

References 88

Annex 1. Writing principles for the components of a competency framework: competencies, behaviours, practice activities and tasks 93

Annex 2. Templates for contextualizing the Global Competency and Outcomes Framework for UHC for a specific context, set of services or occupational group 95

Figures

Figure E.1 Approach to contextualizing the Global Competency and Outcomes Framework for UHC
Figure 1.1 Key areas to improve health workforce management
Figure 1.2 Competencies in the performance of tasks and the relationship with knowledge, skills, attitudes and behaviours
Figure 1.3 Comparison of traditional models of education and CBE
Figure 1.4 The learning continuum in health practice
Figure 1.5 Iterative development of the Global Competency and Outcomes Framework for UHC
Figure 1.6 Relationship between competencies and practice activities, and their underpinning of knowledge, skills and attitudes
Figure 2.1 Competency domains within the Global Competency and Outcomes Framework for UHC
Figure 2.2 Demonstration of behaviours aligned with the Dreyfus and Dreyfus (1986) model of skills acquisition
Figure 3.1 Practice activity domains for health service provision
Figure 3.2 Defining competency-based performance standards for practice activities
Figure 4.1 Five-stage process for contextualizing the Global Competency and Outcomes Framework for UHC for a specific setting, health service or occupational group
Figure 4.2 Four-dimensional competency-based curricular development framework
Figure 4.3 Overview of the process for organizing content as part of framework development
Figure 4.4 Proposed granularity and organization for a competency framework
Figure 4.5 Phases of strengthening education programmes through curricular (re)design
Figure 4.6 Defining learning objectives that meet population health needs

Tables

Table 1.1 Principles of CBE
Table 1.2 Characteristics of competencies, behaviours, practice activities and tasks
Table 2.1 Guiding questions to developing competency-based curricular content for competencies
Table 3.1 Illustrative health worker profiles for practice activities
Table 4.1 Approaches to educational (re)design incorporating UNESCO's six principles of good practice
Table 4.2 Key themes and sources of information to inform competency framework development
Table 4.3 Checklist for finalizing a population health needs-based competency framework
Table 4.4 Illustrative learning objectives for competency 20 and its component behaviours
Table 4.5 Assessment formats and their relevance to learning outcomes and programme outcomes
Table 4.6 Alignment of learning experiences and assessment formats with illustrative learning objectives for competency 20
Table 4.7 Examples of programmatic evaluation of curricular design and implementation

Boxes

Box 4.1 Guiding questions when gathering information to inform competency framework development
Box 4.2 Guiding questions to select and specify practice activities
Box 4.3 Potential consensus methods

Foreword

Achieving the collective commitment to universal health coverage by 2030 requires a health workforce that is equipped to provide the full range of essential health services. This means a health workforce with the education, support and supervision to provide quality, people-centred, integrated health services.

Competency-based education is the most effective approach to ensuring preparedness for practice. Amidst the response to and recovery from the COVID-19 pandemic, Member States have an opportunity to invest in strengthening competency-based health worker education that will bring dividends in health, jobs, global health security, economic opportunity and gender equity.

This Global Competency and Outcomes Framework for Universal Health Coverage is addressed to Member States and education institutions to support them to identify health worker education outcomes; integrate those competencies within education programmes; establish standards for practice; and build performance appraisal tools oriented towards the health services of the quality standards that meet population health needs. With this framework, WHO sets out its recommended approach to competency-based health worker education outcomes; in so doing, it also provides conceptual and terminological clarity.

The framework results from the excellent collaboration among leading experts in the field, many of whom have been very generous with their time and insights to guide its iterative development. That development process has made clear that we must think not only about the number of health workers we need to educate and employ, but also about what that education looks like, what the content should be, how we determine what an acceptable passing standard is, and how these adult learners can best achieve the learning outcomes they need to meet the health needs of the populations that they serve.

The framework incorporates some of the often-overlooked outcomes that underpin the provision of individual health services, such as collaborative practice and respectful care. Further it emphasizes the need to prepare health workers for the teams and settings in which they may practice, the individual and population health services they may provide – including emergency preparedness and response – and the related management and organizational activities.

I thank all the WHO staff and national experts who guided this publication to completion and encourage its application as a resource to align health worker education programmes with population health needs.

Jim Campbell
Director
Health Workforce Department
World Health Organization

Acknowledgements

The development of the Global Competency and Outcomes Framework for Universal Health Coverage (UHC) was led by Siobhan Fitzpatrick, with technical inputs from Ibadat Dhillon and Giorgio Cometto, and under the strategic oversight of James Campbell, Health Workforce Department, World Health Organization (WHO).

WHO is grateful to members of the Education Working Group, who provided technical input to the development of the conceptualization and elaboration of the framework. Without their support, guidance and expertise this work would not have been possible: Ian Bates (International Pharmaceutical Federation, the Netherlands), Henry Campos (The Network: Towards Unity for Health, Brazil), Wanicha Chuenkongkaew (Mahidol University, Thailand), Address Malata (University of Malawi, Malawi), Senthil Kumar Rajasekaran (World Federation for Medical Education, Wayne State University School of Medicine, United States), Sean Tackett (Johns Hopkins Bayview Medical Center, United States), Olle ten Cate (University Medical Center Utrecht, the Netherlands), Val Wass (World Organization of Family Doctors (WONCA), United Kingdom) and Cynthia Whitehead (University of Toronto, Canada).

WHO thanks the many colleagues, stakeholder organizations and individual educators, practitioners, regulators and students whose dedicated efforts and expertise contributed to the development, drafting and finalization of the framework. Special thanks for their considerable time in providing feedback and invaluable advice on draft iterations of the Global Competency and Outcomes Framework for UHC go to Nadia Cobb (University of Utah, World AMTC Network), Sabiha Essack (University of KwaZulu-Natal), Diana Frymus (United States Agency for International Development), Kristine Gebbie (Independent), Indrajit Hazarika (WHO Regional Office for the Western Pacific), Michael Kidd (Australian Government Department of Health), Margrieta Langins (WHO Regional Office for Europe), Akiko Maeda (World Bank), Jody-Anne Mills (WHO Department of Noncommunicable Diseases), Katherine Rouleau (University of Toronto), Lois Schaefer (United States Agency for International Development), Alison Schafer (WHO Department of Mental Health and Substance Use), Mary Showstark (Yale University) and Dave Stewart (International Council of Nurses).

The framework has benefited from the rich inputs from members of the Global Health Workforce Network Education Hub, WHO collaborating centres, participants at consultation events and members of WONCA World who have provided feedback and guidance on iterative drafts of the framework, notably Mohamed Elhassan Abdalla (University of Limerick), David Addiss (Task Force for Global Health), Lina Bader (International Pharmaceutical Federation), Sabine Bährer-Kohler (International University of Catalonia), Philip Begg (International Academy of Physician Associate Educators), Sudip Bhandari (Johns Hopkins University), Vince Blaser (IntraHealth International), Charles Boelen (Réseau International Francophone pour la Responsabilité Sociale en Santé), David Bor (Cambridge Health Alliance), Andrew Nelson Brown (IntraHealth International), Andreia Bruno (International Pharmaceutical Federation), William Burdick (Foundation for the Advancement of International Medical Education Research), Howard Catton (International Council of Nurses), Adriana Cavalcanti de Aguiar (Fiocruz Ministry of Health), Somu Chatterjee (International Academy of Physician Associate Educators), Mellick Chehade (University of Adelaide), Robin Churchill (Clinton Health Access Initiative), Kristina Collins (World Dental Federation), Maria Cordina (University of Malta), Jan De Maeseneer (Ghent University), Aikaterini Dima (International Federation of Medical Student Associations), Natasha D'Lima (Corvus Health), Ncoza Dlova (International League of Dermatological Societies), Michalina Drejza (Poznan University of Medical Sciences), Malike Fair (Association of American Medical Colleges), James Field (Association of Dental Education in Europe), Julian Fisher (State University of New York Upstate Medical

University), Claire Fuller (International League of Dermatological Societies), John Gilbert (University of British Columbia), David Gordon (World Federation for Medical Education), Ashley Graham (Task Force for Global Health), Jennene Greenhill (Flinders University), Roderick Hay (International League of Dermatological Societies), Amanda Howe (WONCA World), Alan Okwuchukwu Ibeagha (United Nations Children's Fund), Peter Johnson (Jhpiego), Ramprakesh Kaswa (Walter Sisulu University), Holm Keller (kENUP Foundation), Deborah Kopansky-Giles (World Federation of Chiropractic), Juergen Laartz (EDU), Lesley-Anne Long (Independent), Cinthya Lucio (Mexico Ministry of Health), David Lusale (International Academy of Physician Associate Educators), Anne MacFarlane (University of Limerick), Alias Mahmud (National University of Malaysia), Claire Mahon (Health Service Executive), Silvina Malvarez (National University of Córdoba), Dianne Manning (University of Pretoria), Viviana Martinez Bianchi (WONCA), Caline Mattar (World Medical Association Junior Doctors Network), Lyn Middleton (University of KwaZulu-Natal), Sharon Mitchell (World Heart Federation), Najia Musolino (International Society of Geriatric Oncology), Nikolai Nunes (Jamaica Medical Students' Association), Lucinda O'Hanlon (Office of the United Nations High Commissioner for Human Rights), Sally Pairman (International Confederation of Midwives), Neil Pakenham-Walsh (Health Information for All), Björg Pálsdóttir (Training for Health Equity Network: TheNET), Ilya Plotkin (TRAIN Public Health Foundation), Eleni Politi (Independent), Bahie Rassekh (World Bank and Baha'i Institute for Higher Education), Melody Redman (Leeds Teaching Hospitals NHS Trust), Sandra M. Rowan (Independent), Asma Mohamed Sharif (Imam Abdulrahman Bin Faisal University), Neel Sharma (Queen Elizabeth Hospital Birmingham, University of Birmingham), Karolina Socha-Dietrich (Organisation for Economic Co-operation and Development), Anna Stavdal (WONCA World), Alessandro Stievano (International Council of Nurses), Kazumi Tanaka (Gunma University Graduate School of Medicine), Andrea Tenner (University of California San Francisco), Denise Traicoff (Centers for Disease Control and Prevention, Center for Global Health), Kate Tulenko (Corvus Health), Barbara Westwood (Independent), Geoff Westwood (Independent) and David Williams (World Dental Federation).

Finally, WHO thanks the following personnel who contributed to the framework: Jonathan Abrahams (Health Security Preparedness Department), Ayat Abu-Agla (Health Workforce Department), Onyema Ajuebor (Health Workforce Department), Jhilmil Bahl (Immunization, Vaccines and Biologicals Department), Anshu Banerjee (Department of Maternal and Child Health), Shannon Barkley (Department of Integrated Health Services), Melissa Kleine-Bingham (Quality of Care), Annie Chu (Viet Nam WHO Country Office), Laurence Codjia (Health Workforce Department), Vânia de la Fuente-Núñez (Department of Social Determinants of Health), Khassoum Diallo (Health Workforce Department), Meg Doherty (Global HIV, Hepatitis and STIs Programmes), Guy St John Douds Fones Illanes (Department of Noncommunicable Diseases), Nathan Ford (Global HIV, Hepatitis and STIs Programmes), Jose Garcia Gutierrez (Department of Health Systems and Services, Pan American Health Organization), Julie Gustavs (WHO Academy), Luther Gwaza (Regulation and Prequalification Department), Minna Hakkinen (Patient Safety Flagship), Qudsia Huda (Health Security Preparedness Department), André Ilbawi (Cancer Programmes), Robert Jakob (Department of Data and Analytics), Richard James (Viet Nam WHO Country Office), Catherine Kane (Health Workforce Department), Umit Kartolgu (Immunization, Vaccines and Biologicals Department), Rania Kawar (Health Workforce Department), Lindsey Lee (Department of Noncommunicable Diseases), Paul Marsden (Health Workforce Department), Carey McCarthy (Health Workforce Department), Frances McConville (Department of Maternal and Child Health), Megan McCoy (Medicines and Health Products Department), Michelle McIsaac (Health Workforce Department), Nana Mensah Abrampah (Quality of Care), Lorenzo Moja (Essential Medicines List), Allyson Moran (Department of Maternal and Child Health), Manjulaa Narasimhan (Department of Sexual and Reproductive Health and Rights), Asiya Odugleh-Kolev (Quality of Care), Giulia Oggero (Health Products Policy and Standards), Irina Papieva (Patient Safety Flagship), Mercedes Perez Gonzalez (Essential Diagnostics List Secretariat), Peter Preziosi (WHO Academy), Annette Prüss-Ustün (Department of Environmental, Climate Change and Health), Teri Reynolds (Department of Integrated Health Services), David Ross (Department of Maternal and Child Health), Julia Samuelson (Global HIV, Hepatitis and STIs Programmes), Kylie Shae (Health Products Policy and Standards), David Schellenberg (Global HIV, Hepatitis and STIs Programmes), Amani Siyam (Health Workforce

Department), Emma Tebbutt (Health Products Policy and Standards), Nicole Valentine (Department of Social Determinants of Health), Benoit Varenne (Department of Noncommunicable Diseases), Cherian Varghese (Department of Noncommunicable Diseases), Adriana Velazquez Berumen (Medical Devices and In Vitro Diagnostics), Kerri Viney (Global TB Programme), Temo Waqanivalu (Department of Noncommunicable Diseases) and Pascal Zurn (Health Workforce Department).

WHO also thanks participants and contributors for their feedback during the following meetings and workshops: WHO Independent High-level Commission on Noncommunicable Diseases Working Group on Health Education (February 2018), Midwifery Education Global Advisory Group (March 2018), Malaria Capacity Working Group (March 2018), G20 Health Working Group (May 2018), WHO Working Group on Ensuring Quality in Psychological Support (May 2018), African Forum for Research and Education in Health (July 2018), Towards Unity for Health Network (August 2018), WHO First Global Conference on Air Pollution and Health (August 2018), WHO Informal Consultation on Vision (October 2018), Réseau International Francophone pour la Responsabilité Sociale en Santé (March 2019) and Global Symposium on Health Workforce Accreditation and Regulation (December 2019).

Funding

The production of this document has been made possible through funding support from Germany, Norway, the UHC Partnership (Belgium, European Union, France, Ireland, Japan, Luxembourg, United Kingdom and WHO), and the United States Agency for International Development (USAID).

Abbreviations

CBE	competency-based education
CHW	community health worker
IPC	infection prevention and control
ISCO	International Standard Classification of Occupations
PPE	personal protective equipment
SDG	Sustainable Development Goal
UHC	universal health coverage
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

Glossary

Effective application in different settings of the Global Competency and Outcomes Framework for UHC requires clarity of terms, definitions and concepts. The terms defined here and adopted throughout the framework have been developed through and validated by parallel processes within WHO *(1)*, underpinning the conceptual framework. Where existing definitions have been adopted, the reference is provided.

Education

Attitude	A person's feelings, values and beliefs, which influence their behaviour and the performance of tasks.
Behaviour	Observable conduct towards other people or tasks that expresses a competency. Behaviours are measurable in the performance of tasks.
Competence	The state of proficiency of a person to perform the required practice activities to the defined standard. This incorporates having the requisite competencies to do this in a given context. Competence is multidimensional and dynamic. It changes with time, experience and setting.
Competencies	The abilities of a person to integrate knowledge, skills and attitudes in their performance of tasks in a given context. Competencies are durable, trainable and, through the expression of behaviours, measurable.
Competency-based curriculum	A curriculum that emphasizes the complex outcomes of learning rather than mainly focusing on what learners are expected to learn about in terms of traditionally defined subject content. In principle, such a curriculum is learner centred and adaptive to the changing needs of students, teachers and society. It implies that learning activities and environments are chosen so that learners can acquire and apply the knowledge, skills and attitudes to situations they encounter in work environments *(2)*.
Competency-based education	An approach to preparing [health workers] for practice that is fundamentally oriented to outcome abilities and organized according to competencies. It de-emphasizes time-based training and facilitates greater accountability, flexibility and learner-centredness *(3)*.
Competency framework	An organized and structured representation of a set of interrelated and purposeful competencies *(4)*.
Competent	Descriptive of a person who has the ability to perform the designated practice activities to the defined standard. This equates to having the requisite competencies.

Curriculum	The totality of organized educational activities and environments that are designed to achieve specific learning goals. The curriculum encompasses the content of learning; the organization and sequencing of content; the learning experiences; teaching methods; the formats of assessment; and quality improvement and programmatic evaluation *(5)*.
Domain	A broad, distinguishable area of content; domains, in aggregate, constitute a general descriptive framework *(6)*.
In-service education	Any structured learning activity for persons already employed in a service setting *(7)*.
Interprofessional education	A situation in which learners from two or more occupations learn about, from and with each other *(8)*.
Knowledge	The recall of specifics and universals, the recall of methods and processes, and/or the recall of a pattern, structure, or setting *(9)*.
Performance (individual work performance)	What the organization hires one to do and do well *(10)*. Performance is a function of competence, motivation and opportunity to participate or contribute *(11)*. Where competence reflects what a health worker can do, performance is what a health worker does do.
Practice activity	A core function of health practice comprising a group of related tasks. Practice activities are time limited, trainable and, through the performance of tasks, measurable. Individuals may be certified to perform practice activities.
Pre-service education	Any structured learning activity that takes place prior to and as a prerequisite for employment in a service setting *(7)*.
Proficiency	A person's level of performance (for example, novice or expert).
Skill	A specific cognitive or motor ability that is typically developed through training and practice, and is not context specific.
Social accountability in education	The obligation of institutions to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve *(12)*.
Standard	The level of required proficiency.
Supervision	The provision of guidance and support in learning and working effectively in health care by observing and directing the execution of tasks or activities and making certain that everything is done correctly and safely, from a position of being in charge *(13)*.
Task	Observable unit of work within a practice activity that draws on knowledge, skills and attitudes. Tasks are time limited, trainable and measurable.

Health

Agency	The power and autonomy people have to think and act for themselves. Agency can take individual and collective forms.
Collaborative decision-making	A process of engagement in which health workers and individuals, caregivers, families and communities work together to understand health issues and determine the best course of action, beyond the two-way knowledge exchange of shared decision-making *(14)*.
Collaborative practice	A process by which multiple health workers from different professional backgrounds work together with individuals, caregivers, families and communities to deliver the highest quality of care. It allows health workers to engage any individual whose skills can help achieve local health goals *(8)*.
Community	A group of people who share common interests, concerns or identities, that may or may not be spatially connected *(15)*.
Discrimination	Any distinction, exclusion, restriction or preference or other differential treatment that is directly or indirectly based on the prohibited grounds of discrimination and which has the intention or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of Covenant rights. Discrimination also includes incitement to discriminate and harassment *(16)*.
Disease and injury prevention	Specific population-based or individual-based interventions for primary and secondary (early detection) prevention, aiming to minimize the burden of diseases and associated risk factors and to prevent or reduce the severity of bodily injuries caused by external mechanisms, such as accidents, before they occur *(17)*.
Evidence-informed practice	The integration of the best available evidence with the knowledge and considered judgements from stakeholders and experts to benefit the needs of a population *(18)*.
Health	Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity *(19)*.
Health intervention	An act performed for, with, on behalf of, or by an individual, family or community whose purpose is to assess, improve, maintain, promote or modify health, functioning or health conditions *(20)*.
Health literacy	The cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health *(21)*.
Health promotion	The process of enabling people to increase control over their health and its determinants through health literacy efforts and multisectoral action to increase healthy behaviours *(17)*.
Health worker	Any person engaged in actions whose primary intent is to enhance health *(22)*.

People-centeredness	An approach to care that consciously adopts individuals', caregivers', families' and communities' perspectives as participants in, and beneficiaries of, trusted health systems that are organized in accordance with the comprehensive needs of people rather than individual diseases and respects social preferences. People-centred care also requires that patients have the education and support they need to make decisions and participate in their own care and that caregivers are able to attain maximal function within a supportive working environment. People-centred care is broader than patient- and person-centred care, encompassing not only clinical encounters, but also including attention to the health of people in their communities and their crucial role in shaping health policy and health services *(23)*.
Social determinants of health	The conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels *(24)*.
Stigma	Stigma is a powerful social process of devaluing people or groups based on a real or perceived difference, such as gender, age, sexual orientation, behaviour, or ethnicity *(25)*.
Universal health coverage	Universal health coverage means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation and palliative care *(26)*.

References

1. Mills JA, Middleton J, Schafer A, Fitzpatrick S, Short S, Cieza A. Proposing a reconceptualisation of competency framework terminology for health: a scoping review. Human Resources for Health. 2020;18:15.
2. UNESCO International Bureau of Education. IBE glossary of curriculum terminology. Geneva: United Nations Educational, Scientific and Cultural Organization; 2013.
3. Frank J, Mugroo R, Ahmad Y, Wang M, De Rossi S, Horsley T. Toward a definition of competency-based education in medicine: a systematic review of published definitions. Medical Teacher. 2010;32(8):631–7.
4. Englander R, Frank J, Carraccio C, Sherbino J, Ross S, Snell L et al. Towards a shared language for competency-based medical education. Medical Teacher. 2013;39(6):582–7.
5. Van Melle E, Frank J, Holmboe E, Dragone D, Stockley D, Sherbino J et al. A core components framework for evaluating implementation of competency-based medical education programs. Academic Medicine. 2019;94(7):1002–9.
6. Englander R, Cameron T, Ballard A, Dodge J, Bull J, Aschenbrener C. Towards a common taxonomy of competency domains for the health professions and competencies for physicians. Academic Medicine. 2013;88(8):1088–94.
7. Integrated Management of Childhood Illness (IMCI): planning, implementing and evaluating pre-service training. Geneva: World Health Organization; 2001.

8. Framework for Action on Interprofessional Education and Collaborative Practice. Geneva: World Health Organization; 2010.

9. Bloom B. Taxonomy of educational objectives, handbook: the cognitive domain. New York: David McKay; 1956.

10. Campbell J. Modeling the performance prediction problem in industrial and organizational psychology. In: Handbook of industrial and organizational psychology. California: Consulting Psychologists Press; 1990:687–732.

11. Boxall P. HR strategy and competitive advantage in the service sector. Human Resources Management Journal. 2003;13:5–10.

12. Boelen C, Heck J. Defining and measuring the social accountability of medical schools. Geneva: World Health Organization; 1995.

13. ten Cate O. Supervision and entrustment in clinical training: protecting patients, protecting trainees. AHRQ Web M&M. 2018;21:1–18.

14. O'Grady L, Jadad A. Shifting from shared to collaborative decision making: a change in thinking and doing. Journal of Participatory Medicine. 2010;2:e13.

15. 7th Global Conference on Health Promotion, Track 1: community empowerment. Geneva: World Health Organization; 2009 (https://www.who.int/healthpromotion/conferences/7gchp/track1/en/, accessed 18 June 2021).

16. UN Committee on Economic, Social and Cultural Rights General comment No. 20: Non-discrimination in economic, social and cultural rights (art. 2, para. 2, of the International Covenant on Economic, Social and Cultural Rights), 2 July 2009, E/C.12/GC/2. Geneva: UN Committee on Economic, Social and Cultural Rights; 2009.

17. Assessment of essential public health functions: health promotion and disease prevention through population-based interventions, including action to address social determinants and health inequity. Cairo: WHO Regional Office for the Eastern Mediterranean (http://www.emro.who.int/about-who/public-health-functions/health-promotion-disease-prevention.html, accessed 18 June 2021).

18. Evidence-based methodologies for public health. Stockholm: European Centre for Disease Prevention and Control; 2011.

19. International Health Conference: Constitution of the World Health Organization, 1946. Bulletin of the World Health Organization. 2002;80(12):983–4.

20. International Classification of Health Interventions (ICHI). Geneva: World Health Organization (https://www.who.int/standards/classifications/international-classification-of-health-interventions, accessed 18 June 2021).

21. Health promotion glossary. Geneva: World Health Organization; 1998.

22. Working together for health: the world health report. Geneva: World Health Organization; 2006.

23. Framework on integrated, people-centred health services: report by the Secretariat. Sixty-ninth World Health Assembly, agenda item 16.1. Geneva: World Health Organization; 2016 (http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_39-en.pdf, accessed 18 June 2021).

24. Social determinants of health. Geneva: World Health Organization (https://www.who.int/social_determinants/sdh_definition/en/, accessed 18 June 2021).

25. Stigma and discrimination: overview. Health Policy Project (http://www.healthpolicyproject.com/index.cfm?ID=topics-Stigma, accessed 18 June 2021).

26. Universal health coverage (UHC) fact sheet. Geneva: World Health Organization; 2019.

Executive summary

Progress towards universal health coverage (UHC) requires strong health systems and health workers who are educated and empowered to provide the health services that populations need.

Many of the enablers of quality in UHC are system-level elements: health care facilities; medicines, devices and other technologies; information systems; financing; and the health workforce. This framework focuses on the role of education and training of health workers to equip them with the competencies, knowledge, skills and attitudes to provide quality health care that is effective, efficient, equitable, inclusive, integrated, people centred, safe and timely, when working in a system of support, supervision and resources.

The goal of this Global Competency and Outcomes Framework for UHC is to advance improvements in health and progress towards UHC through aligning health worker education approaches with population health needs and health system demands. More specifically, the primary objective of this document is to provide guidance for the specification of pre-service and in-service competency-based education outcomes for health workers, which in turn inform the development of relevant curricula, learning activities and assessment approaches. In addition, the outcomes can also inform related licensing and accreditation mechanisms and promote good practices by managers and individual health workers. Accordingly, its main target audience is health workforce educators, but it can be of relevance also for licensing and regulatory authorities and health service and facility managers.

Competency-based education (CBE) is an outcomes-based approach that situates the knowledge and skills gained in the context of practice and the health services provided, thus emphasizing the mastery of learning to the required performance standard. The action-oriented principles of CBE are associated with better preparedness for practice, learner engagement and health worker performance, with the potential to improve health outcomes of the populations that health workers serve. The learner-centred approach within competency-based education, and the focus on outcomes achieved rather than the process or duration of learning, also offer the potential to promote equity and inclusion through education. A gender and equity lens in health worker education can have a long-lasting transformative effect on both employment and health outcomes.

The growing expectations for health workers include a need to better integrate health promotion into interactions; support individuals, caregivers, families and communities to better manage their health; act as advocates; better navigate the health system and collaborate beyond the health sector, coupled with advances in medicines, health care interventions and technologies; manage the health risks and impacts of emergencies and disasters, including disease outbreaks; and be prepared for shifts in the burden of disease and a growth in noncommunicable diseases.

Competencies are the abilities of a person to integrate knowledge, skills and attitudes, demonstrated through behaviours, in their performance of tasks. In the provision of health services, technical knowledge and procedural skills need to be augmented by competencies such as effective communication, working as a team, and partnering with individuals and communities. The Global Competency and Outcomes Framework for UHC is fundamentally rooted in the premise that quality in health services, and thus the

measure of individual health worker competence, requires a holistic focus on the tasks to be performed and the competencies of the health workers who perform them.

CBE is widely acknowledged as the benchmark for transforming education and training of the health workforce for improved population and health outcomes. However, it has the potential to improve the health of the community only in so far as it uses context-specific health issues to determine the desired outcomes. The Global Competency and Outcomes Framework for UHC is designed with a population needs focus, therefore providing a powerful approach through which to align education strategies in relation to the context, health systems and population health needs. When competencies aligned with population health needs and workforce requirements are used as the organizing framework for curricula, assessment of those competencies is in the context of practice activities within role and responsibility, and progress is defined by competence achieved, the quality and relevance of the skills of new graduates can be assured.

Accompanying the growth of CBE over the last 30 years, there has been an explosion in the number of competency frameworks and competency-based curricular guides focusing on a specific aspect of practice or occupational group. The range of terminologies, conceptualizations and detail has in part contributed to ambiguity and inconsistency in the implementation of CBE, limiting the achievement of its full potential. Further, the necessary resources to identify the competencies for local curricula can be prohibitive, alongside the necessary investment to update and implement curricular change.

The Global Competency and Outcomes Framework for UHC provides clarity on the terms and concepts in CBE and outlines a common approach to developing competency-based curricula organized according to the core functions of health practice, integrating behaviours as performance standards. Second, it identifies the competencies, and their component behaviours, that will best enable health workers to contribute to progress towards UHC. Third, the development of competency-based curricula is illustrated for health workers with a pre-service training pathway of 12–48 months, practising within a system of supervision, support and referral, through a framework of the activities of health practice, named practice activities.

Competence is the state of proficiency of a person to perform the required practice activities to the defined standard. This incorporates having the requisite competencies to do this in a given context. This approach to identifying, and assessing, outcomes can be used to design or redesign curricula to incorporate the content presented in this framework as well as from other frameworks and sources. The framework has been developed through the lens of education but can also be used to define the practice activities and performance standards for the purpose of regulation and employment.

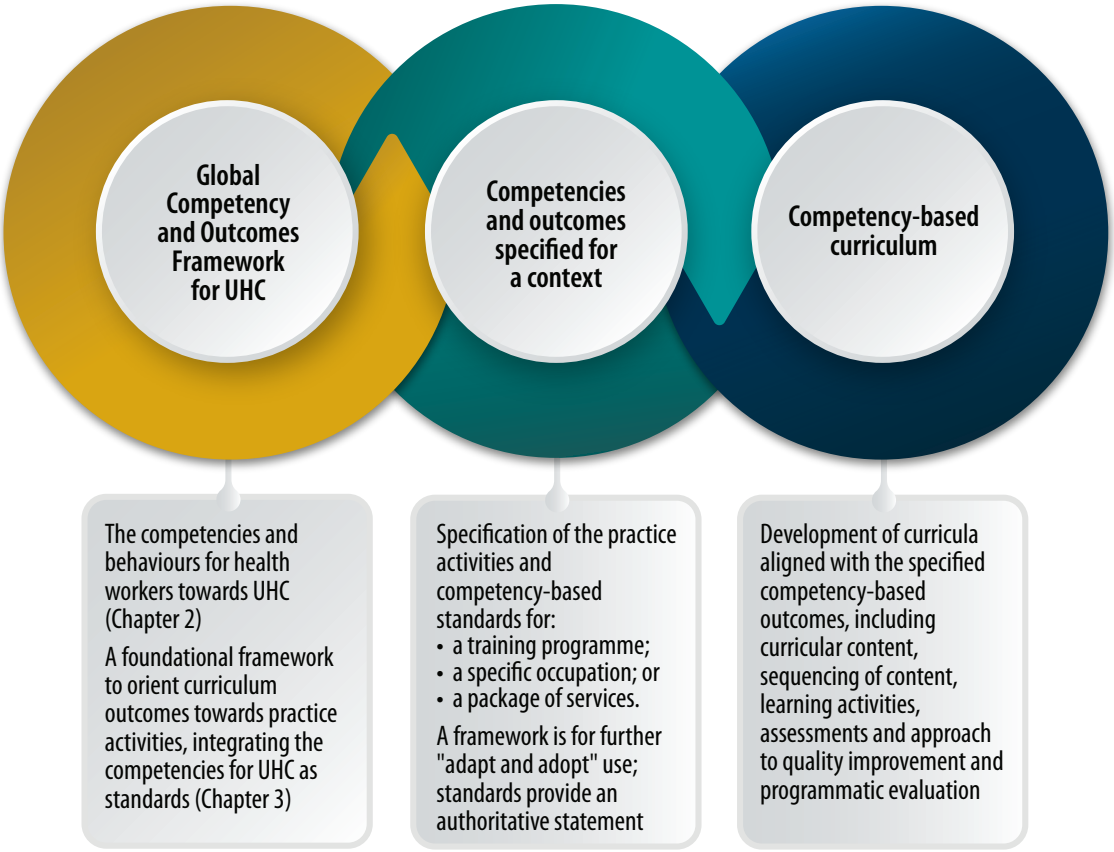
Chapter 1 provides an overview of the underlying educational principles and approaches, and the methodology used to develop the Global Competency and Outcomes Framework for UHC.

Chapter 2 identifies 24 competencies that are relevant to the roles of health workers in contributing to progress towards UHC, and the behaviours through which these competencies are demonstrated in their practice. These competencies are foundational to the provision of quality integrated people-centred health services, and are applicable across occupational groups and settings.

Chapter 3 identifies 35 practice activities, encompassing tasks, that describe the core functions of health practice provided by health workers in primary health care with 12–48 months pre-service education, and which are considered integral to the attainment of UHC. To further guide the development of curricula, illustrative occupational profiles and brief curricular guides accompany each practice activity.

Chapter 4 provides a guide to using the framework and its subsequent applications as illustrated in Figure E.1, as follows: first, the process to contextualize the practice activities and competencies to specify the competency-based outcomes for a specific occupation, setting or set of services (including training programmes beyond 48 months or shorter length programmes); and second, the steps for using these outcomes to develop a competency-based curriculum, including the learning activities and assessments, to enable learners to develop the requisite competencies and underpinning knowledge, skills and attitudes for UHC.

Fig. E.1 Approach to contextualizing the Global Competency and Outcomes Framework for UHC



The Global Competency and Outcomes Framework for UHC will be accompanied by service-specific modules that describe individual health services in terms of its component practice activities. These will be published incrementally to aid the contextualization of curricula to educate health workers to provide the health services that meet population health needs.

1. Introduction

1.1 Health workforce as an enabler of universal health coverage (UHC)

Health has a central place in the United Nations Sustainable Development Goals (SDGs), which were adopted by all United Nations Member States in 2015 as a universal call to action. Currently, more than half of the world's population cannot access essential health services, and each year 100 million people are pushed into extreme poverty because of out-of-pocket health care costs *(1)*. The collective commitment to UHC by 2030 aims for all people to have access to the full range of essential health services, from health promotion and injury, disability and disease prevention to treatment, rehabilitation, and palliative care, when and where they need them, without financial hardship *(2)*. Almost all of the SDGs are interrelated and contribute to health directly or indirectly. The strengthening of the health workforce links directly to SDG 3, "Ensure healthy lives and promote well-being for all at all ages", and builds on the agenda for SDG 4 for inclusive and quality education.

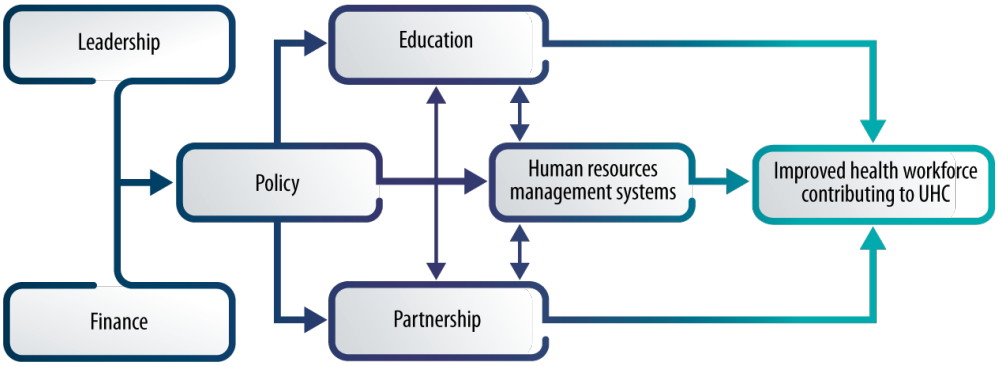
In 2016, the World Health Organization (WHO) estimated a shortfall of 18 million health workers by 2030, primarily in low- and middle-income country settings *(3)*. Member States have reaffirmed their commitment to the scale-up of education and training to address health worker shortages (including through World Health Assembly resolutions WHA64.6, WHA66.23, WHA67.24, WHA69.24, WHA69.19, WHA70.6 and WHA72.3; World Health Assembly decision WHA68(11); and Executive Board decision EB140(3)). Optimizing the availability, accessibility, acceptability and quality of the health workforce to contribute towards UHC has the potential to improve population health outcomes, enhance global health security and contribute to economic growth *(3)*. UHC requires not only a scale-up of education programmes, but also a focus on the quality and relevance of those programmes as part of efforts to ensure the right mix of health workers with the right competencies providing services in the right places to better respond to changing population health needs *(4)*.

Data show that quality of care in most countries, particularly low- and middle-income countries, is suboptimal *(5)*. Quality within UHC means health services that are effective, equitable, efficient, inclusive, integrated, people centred, safe and timely *(6)*. Quality of health services is critical for achieving UHC that improves population health and health outcomes; however, quality does not come automatically. The five foundational elements critical to delivering quality health care services are health workers; health care facilities; medicines, devices and other technologies; information systems; and financing *(5)*. Ensuring quality in health services is a complex and multifaceted concept that requires the design and simultaneous deployment of combinations of discrete interventions. This framework focuses on the role of health workers in delivering quality health services for which they should be trained.

Figure 1.1 highlights education as one of the key areas to improve the health workforce contribution to UHC. Maximizing the potential of education requires a holistic health labour market approach to ensure the uptake of the population-based approach to defining curricular outcomes, as outlined in this framework. This includes aligning health workforce production with the needs and demands of the health system; equipping the health workforce through appropriate education with the competencies required to effectively meet population needs; ensuring equitable geographical distribution of the health workforce with the right skills

mix to provide the health services that meet diverse population needs; and providing decent conditions[1] that ensure gender-transformative employment, support, supervision, training and resources to optimize health worker motivation, retention, distribution and performance *(7)*.

Fig. 1.1 Key areas to improve health workforce management



Source: Adapted from Cometto, Buchan and Dussault *(8)*.

1.2 Competency-based education: the foundation for training health workers to address population health needs

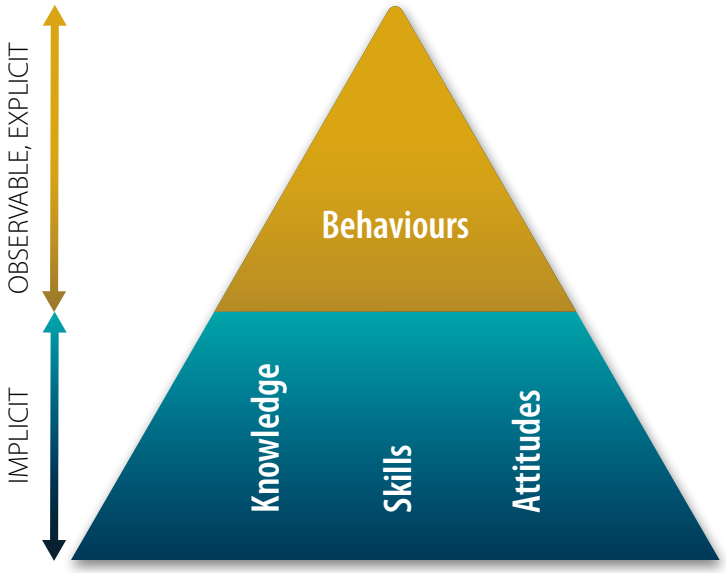
Competency-based education (CBE) is an outcomes-based approach to curricular design, development and implementation that emphasizes the mastery of learning, and the application of knowledge, skills and attitudes in the context of performance, rather than the process of learning and the acquisition of knowledge, skills and attitudes *(9)*. This has implications for the development and design of curricula and the assessment of outcomes achieved through the education programme.

Competencies are a person's abilities to integrate knowledge, skills and attitudes, demonstrated through behaviours, in the performance of tasks in a given context. The model in Figure 1.2 illustrates how, in practice, behaviours are the observable, measurable components of competencies (explicit) encompassing knowledge, skills and attitudes (implicit). Where knowledge provides the informational basis for tasks, skills are the higher-order application, analysis, evaluation and creation of knowledge. The presence or (partial) absence of knowledge, skills and attitudes can be inferred from the presence or absence of the associated behaviours demonstrated through the performance of tasks. In CBE, knowledge, skills and attitudes provide the key foundations for provision of health services – but the emphasis is on the integration and application of those foundations in the context of performance.

The 2010 Lancet Commission report "Health professionals for a new century: transforming education to strengthen health systems in an interdependent world" *(10)* called for a transformation of education of health professions to strengthen health systems for the 21st century, including incorporating a competency-based approach into curricula that is rooted in health and health system needs, a notion that has since garnered increasing support *(7, 11–13)*. CBE has been a prominent focus of educational reform in resource-rich settings over the last 30 years *(9)*, initially for health professionals in higher-resource settings in Europe, Australia and the Americas, and with a more recent uptake across other settings and across occupations. It has the potential to be a more efficient way of structuring course curricula *(14)* by incorporating content relevant to

[1] Such an integrated package of policies includes job security, a manageable workload, supportive supervision and organizational management, continuing education and professional development opportunities, enhanced career development pathways, family and lifestyle incentives, hardship allowances, housing and education allowances and grants, adequate facilities and working tools, and measures to improve occupational health and safety, including a working environment free from any type of violence, discrimination and harassment *(7)*.

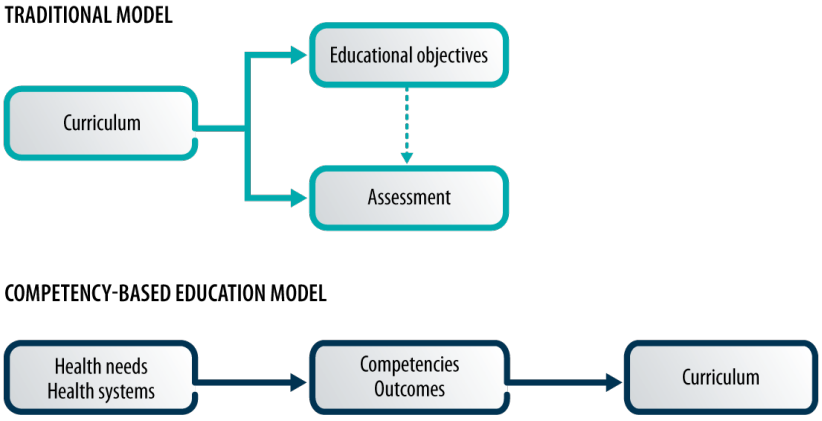
Fig. 1.2 Competencies in the performance of tasks and the relationship with knowledge, skills, attitudes and behaviours



the achievement of outcomes. It is associated with higher assessment scores *(15)*, a generally faster pace of learning *(16)*, decreased variation amongst student outcomes *(17)*, better learner preparedness for assessments *(18)* and for practice *(19)*, student satisfaction with the relevance of learning *(18)*, and meeting the needs of students, administrators, faculty and patients *(20)*. The learner-centred approach within competency-based education, and the focus on outcomes achieved rather than the process or duration of learning, also offers the potential to promote equity and inclusion through flexible education pathways *(21)*. A gender and equity lens in health worker education can have a long-lasting transformative effect on both employment and health outcomes.

Figure 1.3 depicts the shift from traditional models of education that focus on the curricular content and competence measured through the acquisition of knowledge, skills and attitudes and completed time in training. CBE models of education focus on the application of knowledge, skills and attitudes in the context of defined competencies and outcomes of the programme. Further, programme competencies and outcomes are explicitly defined in relation to health needs and health systems.

Fig. 1.3 Comparison of traditional models of education and CBE



Source: Adapted from Frenk et al. *(10)*.

CBE has the potential to improve the health of the community only in so far as context-specific health issues are used to determine the desired competencies *(10)*. Developing competency-based curricula to meet population health needs is a process that begins first by identifying what those population health needs are; then by defining the outcomes needed to meet those needs; and finally by tailoring the curriculum to meet those outcomes. Achieving the full potential of CBE requires more than the articulation of competencies in a framework; it also requires a range of pedagogies, educational techniques, learning experiences and assessment to support learners to develop the competencies and achieve the defined outcomes. The principles of CBE, summarized in Table 1.1, should guide the (re)design and assessment of competency-based curricula. Without these, CBE becomes little more than traditional forms of education with a more clearly defined set of learning outcomes *(22)*.

Table 1.1 Principles of CBE

Variable	Traditional education	Competency-based education
Driving force for curriculum	Content	Outcome
Goal of educational encounter	Acquisition of knowledge, skills and attitudes	Application of knowledge, skills and attitudes to performance
Driving force for progress	Teacher	Learner
Path of learning	Hierarchical (teacher –> student)	Non-hierarchical (teacher <–> learner)
Responsibility for content	Teacher	Learner, teacher, institution and governing body together
Organization of content	Preclinical and clinical phases	Modular, progressive sequencing
Typical assessment tool	Single measure	Multiple measures ("evaluation portfolio")
Assessment tools	Proxy	Authentic (mimics real tasks of health care)
Setting for evaluation	Gestalt approach (competence determined as the sum of the parts)	Direct observation (competence determined as the integrated whole, more than the sum of the parts)
Evaluation	Norm-referenced	Criterion-referenced standards
Timing of assessment	End of programme (summative)	Regular, continuous (formative) as well as end of programme and continuous (summative)
Programme completion	Fixed time (independent of need)	Variable time (adapted to need)

Source: Adapted from Van Melle et al. *(23)* and Carraccio et al. *(24)*.

WHO first proposed outcomes-based health worker education organized according to work functions in 1978 *(25)*. Since the 1990s, many health worker education programmes across occupational groups and across regions have integrated a competency-based curricular approach, with an increasing emphasis on the behavioural outcomes alongside functional outcomes. There are concerns however that in some countries there remains a mismatch between education strategies and population needs. In some cases, training programmes are outdated, remain focused on acquisition rather than application of knowledge, and use static curricula that produce ill-equipped health workers *(10, 26)*. At the same time, given the continued disparities in health care access in many of the countries with CBE models, it is apparent that competency-based models will not in themselves ensure that population needs are addressed. For that to happen, those implementing the competency-based curricular approach must consistently apply the population needs lens to all education design. The Global Competency and Outcomes Framework for UHC is designed with a population needs focus, therefore providing a powerful approach through which to align education strategies in relation to the national context, health systems and population health needs.

1.3 Aims of the Global Competency and Outcomes Framework for UHC

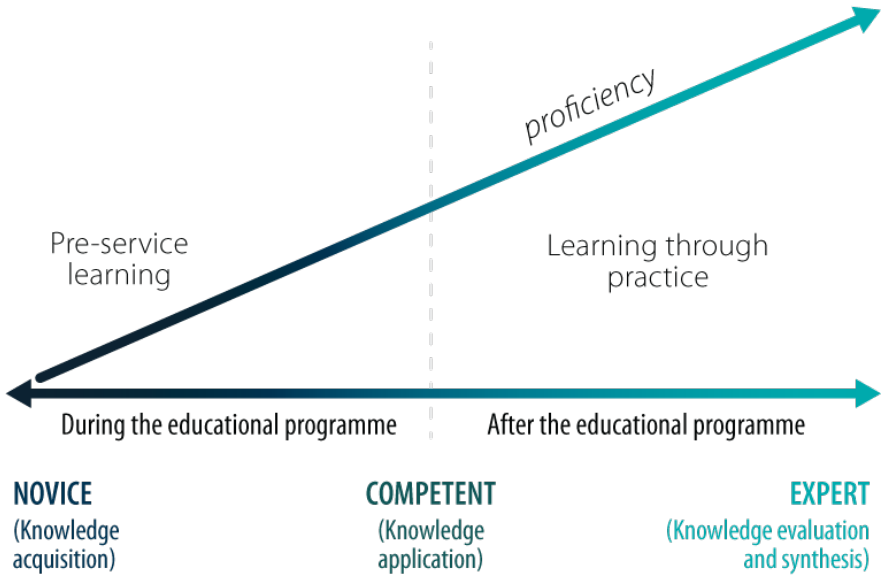
The Global Competency and Outcomes Framework for UHC aims to advance improvements in health and progress towards UHC through aligning health worker education approaches with population health needs and health system demands.

▶ A focus on the integration of competencies into pre-service education, with relevance for in-service education, regulation, employment and career progress

The application of competency and outcomes frameworks extends across education, regulation and employment. The primary focus of the Global Competency and Outcomes Framework for UHC is on informing education programmes to prepare health workers for health practice. The framework can also be used by employers to inform the expectations of health workers in practice; to identify training needs; and to inform the definition of occupational roles and responsibilities, or regulated scopes of practice.

An individual's proficiency – their level of performance – can increase with training and experience. Figure 1.4 illustrates the role of pre-service education in developing the knowledge, skills, attitudes and competencies to achieve the state of proficiency that meets the required standard for practice. This level of proficiency is known as competence. For CBE to be relevant, it is essential that competence is defined externally at the level required for graduates, or in the case of health care, for practice. Further, through defining a shared set of expectations and a common language, outcomes defined at the level of competence can offer increased accountability between education and employment.

Fig. 1.4 The learning continuum in health practice



▶ Foundational tool to be adopted and adapted by educators and regulators

There is no single standard of competence, as that standard needs to reflect the roles and responsibilities, the level of supervision, the culture and context, and the health services to be provided. The diversity of health services and health priorities in different settings, and the varying resource environments and teams in which health workers practise, require that the Global Competency and Outcomes Framework for UHC be contextualized. The framework is designed to be used through an adapt and adopt approach. Accompanying service-specific modules will be published to facilitate this adaptation.

▶ Competencies that are relevant to current and future health practice

The framework aims to guide the development of curricula to train health workers to meet the demands of current and future health practice. A widely recognized benefit of CBE is its flexibility compared to traditional, knowledge-focused curricula. This flexibility is twofold: first, in relation to the modular organization of competency-based curricula, enabling progressive sequencing of content and acquisition of more complex or more autonomous outcomes; and second, in the emphasis on the development of the individual learner's competencies, such that these behaviours are long lasting. It is the competencies that enable learners to acquire skills and new knowledge and to engage in lifelong learning, thus helping to build a flexible and responsive workforce.

Emerging trends in health services that will influence future health practice include health system redesign, the roles of technologies and changing burdens of disease *(10, 27–30)*. These projections have informed the development of the Global Competency and Outcomes Framework for UHC and the identification of the competencies for health workers working within people-centred, integrated, team-based health care. Periodic review of both the Global Competency and Outcomes Framework for UHC, and of contextualized competency-based curricula developed in relation to it, is recommended to ensure continued relevance.

▶ A focus on the core functions of health services as they contribute to attainment of UHC, rather than a focus on who should provide them

The Global Competency and Outcomes Framework for UHC is focused on the provision of health services rather than on who should provide them. The diversity of roles and skills associated with occupational titles across countries and jurisdictions, and overlapping scopes of practice with different qualifications, make them a less helpful starting point. A focus on the core functions of health services, rather than the different occupational groups, has wide applicability across settings and occupational definitions. Occupational profiles are provided to illustrate how the framework might be specified for a given role or setting; these are not prescriptive but provide a starting point for contextualization.

In many contexts, the use of the term "professional" denotes a regulated scope of practice, which is not the case for all health workers with a pre-service training pathway of 12–48 months. As such the term "professional" is not used within the framework, which instead refers to occupational groups and collaborative practice.

▶ A focus on UHC through primary health care

Primary health care is the cornerstone of UHC *(31)*. The Astana Declaration on Primary Health Care recognized that strengthening primary health care is the most inclusive, effective and efficient approach to enhancing people's physical, mental and social health and well-being *(32)*. Primary health care is a necessary foundation of UHC through its focus on the determinants of health and well-being, empowered people and communities, and integrated health services based on primary care and public health services. The Global Competency and Outcomes Framework for UHC is deliberately designed with a primary health care lens, therefore providing a powerful approach through which to align CBE strategies with the national context, health systems and population needs.

Ensuring that primary health care provision contributes fully to UHC requires effective and coordinated multidisciplinary teams with a range of competencies and scopes of practice to address the health needs of the population, within a health system of referral to other care settings. The composition of primary health care teams depends on each country's own context, resource availability and investment capacity, and may include family doctors, doctors of any other discipline working at the primary care level, nurses, midwives, pharmacists, dentists, rehabilitation workers, community health workers, nutritionists, social carers, social workers, administrative and support staff, and traditional healers *(28)*.

▶ Illustration of the curricular development approach for health workers with a pre-service training pathway of 12–48 months

The approach to development of competency-based curricula is potentially relevant to all health worker groups, and in-service and pre-service training programmes of all durations. The development of competency-based curricula is illustrated for health workers with a pre-service training pathway of 12–48 months, practising within a system of supervision, support and referral.

The focus of the framework for health workers in primary health care with pre-service training pathways of 12–48 months was chosen as these programmes are broadly cohesive. There is significant variation in programmes with less than 12 months of training, and shorter programmes may not be of sufficient time to fully develop the desired competencies. Further, there is already a significant amount of standardization and regulation in the content of training programmes longer than 48 months, and these programmes vary considerably in the breadth and length of their training; the inclusion in this document of occupational groups with a pre-service education pathway longer than 48 months would have resulted in an excessively heterogeneous scope of application, and was therefore excluded.

Defining the scope of this competency framework in relation to the target group of general service health workers with 12–48 months education, conversely, allows for a comprehensive and more cohesive approach to identifying the competencies that enable effective performance. Examples of the occupational groups (International Standard Classification of Occupations 2008 (ISCO-08)) therefore included in the scope of this framework are nursing professionals (ISCO-08 group 2221), some community health workers (ISCO-08 group 3253) with pre-service education longer than 12 months, nursing associate professionals (ISCO-08 group 3221), and paramedical practitioners (ISCO-08 group 2240) *(33)*.

1.4 Methodology

The development of the Global Competency and Outcomes Framework for UHC was informed by a participatory approach to development, validation and consensus building. The conceptualization of the framework and the organization of the content represent a consensus rooted in the evidence and information about the core functions of health practice provided by health workers in primary health care with 12–48 months pre-service education; the patterns of behaviours demonstrated most often by high-performing health workers; up-to-date educational theory and approaches to implementing CBE; and the expected future requirements for health workers. Whilst the steps described in Figure 1.5 suggest a linear development of the framework, the process has involved iterative consultation and validation of the conceptual approach, the competencies and outcomes, and the approach to contextualization.

Fig. 1.5 Iterative development of the Global Competency and Outcomes Framework for UHC

Information gathering

Information was gathered from a wide range of sources to inform the conceptualization and content of the framework. This included information about the range of health services and health priorities; the perspectives of people involved in receiving and providing health services; the behaviours or actions a health worker can perform to ensure quality in health care; and the parameters for quality in health care that are outside the control of the health workforce.

- **Roles and responsibilities of health workers, service pathways, and health services as contributors to UHC in different contexts.** Information was gathered from existing documentation, including *Disease control priorities*, third edition *(34)*; International Classification of Diseases, 11th revision *(35)*; International Classification of Primary Care, revised second edition *(36)*; International Classification of Health Interventions *(37)*; International Standard Classification of Occupations (ISCO-08) *(33)*; occupational role profiles *(38, 39)*; early drafts of a WHO compendium of interventions for UHC (forthcoming); tracer indicators for measuring the coverage of essential health services for UHC *(40)*; and modelling for resource needs in low- and middle-income countries *(41)*.

- **Foundations for UHC.** WHO priorities for UHC, as articulated through global strategy documents and global priorities, were evaluated to identify the contributions of individual health workers, the health workforce as a whole and education programmes to contribute to progress towards UHC through primary health care. These included documentation in the following areas:
  - primary health care *(29, 31, 32)*
  - emergency preparedness and global health security *(7, 42)*
  - antimicrobial resistance *(43)*
  - integrated people-centred health services *(6, 44)*
  - population health *(7)*
  - determinants of health *(45)*
  - health promotion and prevention *(46)*
  - interprofessional education and collaborative practice *(46)*
  - patient safety and quality of care *(5, 47, 48)*
  - social accountability *(27, 49)*
  - human rights approach to health *(50, 51)*
  - digital and other technologies *(52)*
  - lifelong learning *(53)*.

- **Existing competency frameworks and competency-based curricula.** More than 200 competence, competency and capability frameworks for health workers, and a further 100 other outcomes frameworks including competency-based curricula and standards, were reviewed for definitions, approach, scope and content. A broad search strategy was enlisted to identify relevant frameworks across different occupational groups and in different country contexts. Particular attention was given

to the CanMEDS *(54)* and Accreditation Council for Graduate Medical Education *(55)* models, which have been adapted into 23 and nine other frameworks referenced in this work, respectively; the Association of American Medical Colleges proposal for global competency domains *(56)*; the three global, occupation-specific frameworks developed by the International Pharmaceutical Federation *(57)*, the International Council of Nurses *(58)* and the International Confederation of Midwives *(59)*; and 31 frameworks published by WHO.

- **Literature on the merits, limitations and applications of competency frameworks and CBE.** A review of academic literature, emerging concepts in CBE and studies on the merits and limitations of CBE for health worker education was conducted, benefiting particularly from efforts of the Organisation for Economic Co-operation and Development *(12)*, Association of American Medical Colleges *(60)* and International Competency-Based Medical Education collaborators *(56)* to harmonize competencies and terminology. Particular attention was paid to entrustable professional activities *(61, 62)*.

▶ Working group of educationalists

A working group of nine educationalists was convened from clinical education backgrounds in dentistry, nursing, medicine, midwifery and pharmacy, and from countries at different levels of socioeconomic development. The group met in person in December 2018 to advise on the conceptual approach and draft content, and continued to offer advice on iterative drafts.

▶ Iterative consultation and development

The Global Health Workforce Network Education Hub was established as a virtual community of practice for networks, agencies, academic institutions and individual experts in health worker education across regions and occupational groups. Membership was self-selected and encouraged via social media as well as through meetings, networks and the WHO website. Members of the Global Health Workforce Network Education Hub have provided feedback on three full drafts, and shared examples and references to inform the iterative development of the framework via group conference calls and discussion forums. At the time of the final consultation, there were more than 500 members from 83 countries.

There has been further targeted consultation with WHO regional offices, WHO technical departments, WHO collaborating centres, individual experts, stakeholder groups and professional associations, encouraging all individuals and stakeholder groups to engage subsequently through the Global Health Workforce Network discussion forums for transparency and to reach consensus.

1.5 Conceptual framework

▶ Clarity on the terms, definitions and conceptualizations in CBE

Competency and competence have become amongst the most commonly used terms in health worker education, yet they are considered distinct by some and interchangeable by others. The review of existing frameworks that informed this work identified 200 different terms – for example, subcompetency, metacompetency, element and indicator – sometimes meaning the same thing, sometimes meaning different things, and with often different levels of detail and constructs. Further, the development of this framework identified 120 different definitions of competency and 48 definitions of competence. The similarity of terms, compounded by the nuances sometimes lost in translation between languages, have contributed to the confusion of terminology and hindered the application of CBE. Evaluations and commentaries about CBE have identified this as a limiting factor to maximizing the potential of CBE: this is not simply a matter of semantics, as it drives the articulation of outcomes and hence the learning experiences to achieve those outcomes and the assessment of competence.

The definitions of competency and competence have in common the integration of knowledge, skills and other attributes (such as attitudes, beliefs, judgement, strengths or values), usually in relation to performance of tasks. There are, however, three distinct and related conceptualizations.

- Competencies are behavioural – they are a person's ability to integrate knowledge, skills and attitudes.
- Practice activities are functional – they are groups of tasks that require the application of knowledge, skills and attitudes.
- Competence is a holistic measure of performance of the practice activity to the standard defined in terms of behaviours – hence, competence is the integration and application of knowledge, skills, attitudes and competencies.

Table 1.2 summarizes the key characteristics of the two types of outcomes defined in the Global Competency and Outcomes Framework for UHC: competencies (and the behaviours that demonstrate them) and practice activities (encompassing tasks).

Table 1.2 Characteristics of competencies, behaviours, practice activities and tasks

	Competency	Behaviour	Practice activity	Task
Definition	The ability of a person to integrate knowledge, skills and attitudes in their performance of tasks in a given context. Competencies are durable, trainable and, through the expression of behaviours, measurable.	Observable conduct towards other people or tasks that expresses a competency. Behaviours are measurable in the performance of tasks.	A core function of health practice comprising a group of related tasks. Practice activities are time limited, trainable and, through the performance of tasks, measurable. Individuals may be certified to perform practice activities.	Observable unit of work within a practice activity that draws on knowledge, skills and attitudes. Tasks are time limited, trainable and measurable.
Characteristics	• Continuous, ongoing abilities • May develop or erode with time • Enables performance of multiple practice activities • A person can possess a competency, which is demonstrated in the context of performance • Requires the integration of knowledge, skills and attitudes • The behaviour demonstrating the competency defines the standard for performance		• Time-limited, discrete actions, observable from start to finish • Requires the application of knowledge, skills and attitudes • A person can perform a practice activity or task, but they cannot possess it • The unit of assessment, certification or regulation	
	• A person can possess a competency • A competency is multifaceted • Behaviours are the measurable expression of a competency	• Competencies can be demonstrated through several different behaviours • Performance is measurable as a judgement on a scale of frequency (never, sometimes, always)	• Describes the common goal of a group of tasks	• A smaller, measurable unit within a practice activity • Does not achieve a goal in itself; is abstract unless considered in the context of the wider practice activity • Performance is measurable on a dichotomous scale (yes or no)

This approach is rooted in the educational approaches defined by Bloom's (1956) taxonomy of educational outcomes *(63)*; Anderson and Krathwohl's (2001) revision of those outcomes *(64)*; and the social sciences discourse on activity theory,[2] which considers performance of tasks as part of a joint activity or practice. Further, the terms and conceptualization build upon recent efforts among educationalists to clarify and conceptualize competencies in relation to (and thus distinct from) the performance of work (*23, 54, 61, 65*), and in particular upon the work of the International Competency-Based Medical Education collaborators *(60, 66)*.

[2] Activity theory is rooted in the understanding of people as sociocultural persons (not processors or systems components), such that in order to achieve an outcome in the provision of health care, the person needs to mediate the sequence of tasks towards a goal within the rules and tools available for the context.

The dual focus on both the behavioural and functional components of competence and their relationship aims to harness the promise of CBE, and offer clarity on the implementation of competency frameworks and competency-based curricula.

▶ Competencies are a person's abilities to integrate knowledge, skills and attitudes, demonstrated through behaviours

Competencies are the abilities of a person to integrate knowledge, skills and attitudes in their performance of tasks in a given context. Competencies are durable, trainable and, through the expression of behaviours, measurable. They represent ongoing habits that are not task specific but rather enable the performance of different roles and responsibilities in varying situations. Competencies are interrelated and often demonstrated simultaneously, for example communication, decision-making and collaboration in the context of developing a treatment management plan.

A person's competencies can be observed through the demonstration of the specified behaviours in the context of the tasks performed. The expression of behaviour is within the power or control of the health worker; a health worker controls their actions or response to a situation, but they cannot control the outcome. The competencies that are relevant for effective health practice are not, in themselves, unique to the sector. However, the behaviours that demonstrate the requisite competencies for UHC are described in the context of the provision of health services.

▶ Practice activities are the core functions of health practice, encompassing groups of related tasks

The execution of these related tasks to the requisite standard for UHC requires the integration and application of knowledge, skills, attitudes and behaviours. For use as a guide to curricular development, the practice activities require specification according to the role, responsibility and context. With these specifications, practice activities are the units of assessment, certification and, in some cases, regulation.

Practice activities describe the core functions of health services as they strive to attain UHC, such as managing a treatment plan, documenting notes in a patient record or ordering supplies. In total, practice activities describe the core functions of health practice for the health team, each comprising multiple component and sequential tasks. Individual practice activities may be provided by an individual or by a team, depending on the distribution of roles and responsibilities.

The practice activities are described in general terms and are applicable across health services and in different settings. They require specification according to the role and responsibility of the person who will provide those health services, and the context in which they will provide them. Practice activities may differ in size; they reflect the functions of health practice, not the space in the curriculum.

The provision of health services is not, in reality, ordered into units of work that are described by the practice activities. In a single interaction, the same health worker may gather information, make a clinical judgement, perform a test, provide initial results, communicate difficult news and arrange for a referral. For utility in education and the measurement of outcomes, the execution of practice activities can be observed and measured through the performance of tasks, integrating competencies as standards for performance.

Competence is a state of proficiency, encompassing competencies. Competence is the state of proficiency of a person to perform the required tasks within a practice activity to a defined standard, which equates to having the requisite competencies to do this. Competence is multidimensional and dynamic, relating to the ability to perform a practice activity to the standard for the context. As the context changes – the presentation of symptoms, the team, the availability of resources – the individual draws on their competencies to make decisions, collaborate, and communicate effectively for that context.

Whilst competencies in isolation might be considered abstract and tasks in isolation considered reductionist, it is the combined focus on the individual's abilities in relation to their performance of tasks that offers a richness in the interpretation of competence that underpins the provision of quality health services.

Competencies take their meaning in the context of practice activities; behaviours are the performance standards of practice activities. The outcomes of pre-service education programmes should reflect what the learner will do in practice (practice activities encompassing the performance of tasks) and the standards to which these are performed (competencies demonstrated through behaviours). When designing a curriculum, it is common and advisable to break complex competencies into sets of knowledge and skills, ensuring mastery of each before progressing to the application and assessment of competence in context.

The focus of CBE is mastery of the learning outcomes of the programmes, defined in terms of the application of knowledge, skills, attitudes and behaviours to practice. Figure 1.6 illustrates how knowledge, skills and attitudes underpin both competencies (and behaviours) and practice activities (encompassing tasks).

Fig. 1.6 Relationship between competencies and practice activities, and their underpinning of knowledge, skills and attitudes

Knowledge, skills and attitudes are developed interdependently. It cannot be assumed that learners will intuitively respond to different situations; effective behaviours are an integral part of effective performance of tasks, and the different contexts, and expected performance in those contexts, warrants explicit focus in curricula. The principles of CBE consider that effective behaviours are not learned in isolation, but in the context of the tasks and situations for real-world practice.

▶ Supportive supervision is one key to the success of the implementation of the framework

Supervision can be provided by and between different occupational groups, or by health workers within the same occupational group. Effective supervision requires that those engaging in supervision have achieved competence in the practice activity to be supervised as well as the practice activity of supervision. Expertise in a subject does not equate to competence in supervision.

Ideally, health service provision would be by health teams composed of a mix of juniors (novices who need continued education and supervision), experienced health workers (who are encouraged to examine and reflect on their practice through supervision) and supervisors (expert health workers who can offer practical advice and know-how).

Responsibilities for the provision of health services build gradually and start in a formal training programme under due supervision, and even after completion of pre-service education programmes workplace-based supervision may remain required for some time. There will be times in practice where a health worker reaches a proficiency threshold and needs to seek advice from, or hand over to, a supervisor or more specialized health workers in the team with the training and competence to perform a task. Learners have a responsibility to identify and acknowledge when they do not know what to do or they need support. It is important that the standards for competence reflect the context in which a learner is expected to practise, including the level of supervision necessary.

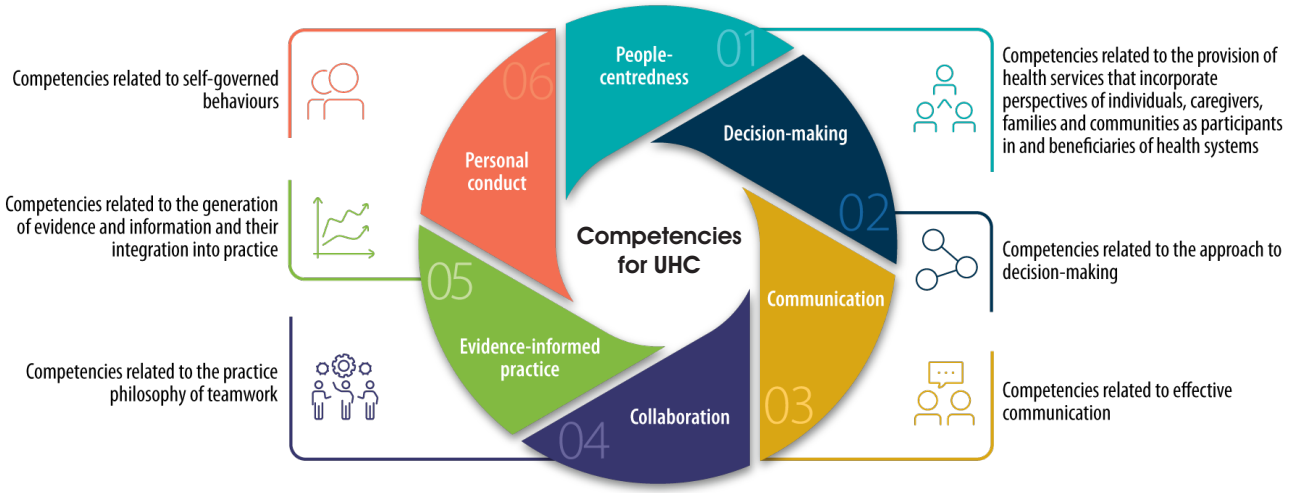
2. Competencies for universal health coverage (UHC)

Quality of health care services is critical for achieving UHC; however, quality does not come automatically. This chapter focuses on the requisite competencies of health workers that enable them to provide health services that are effective, equitable, efficient, integrated, people centred, safe and timely, thus contributing to progress towards UHC within the overall health system.

Competencies are a person's abilities to integrate knowledge, skills and attitudes, demonstrated through behaviours, in the performance of tasks in a given context. When developing competency-based curricula, this means that the behaviours outlined in this chapter are learned and assessed in the context of the tasks within role and responsibility. This requires a deliberate inclusion of the requisite behaviours for UHC within the performance standards for the practice activities, encompassing tasks.

This framework proposes 24 competencies, organized into the six domains depicted in Figure 2.1, that health workers should integrate into their practice to contribute towards the provision of quality health services. Many competencies are individually applicable beyond the health sector: this framework identifies the range of behaviours that embody these competencies in the provision of quality health services that contribute to attainment of UHC.

Fig. 2.1 Competency domains within the Global Competency and Outcomes Framework for UHC



Competencies are interrelated and overlapping. For example, communication is fundamental to collaboration; and decision-making cannot take place without interpreting and applying evidence and information. Competencies are not specific to an individual task or practice activity. As such, a given situation might require the integration of multiple competencies, and every competency has the potential to underpin the performance of any practice activities within an individual's role and responsibility.

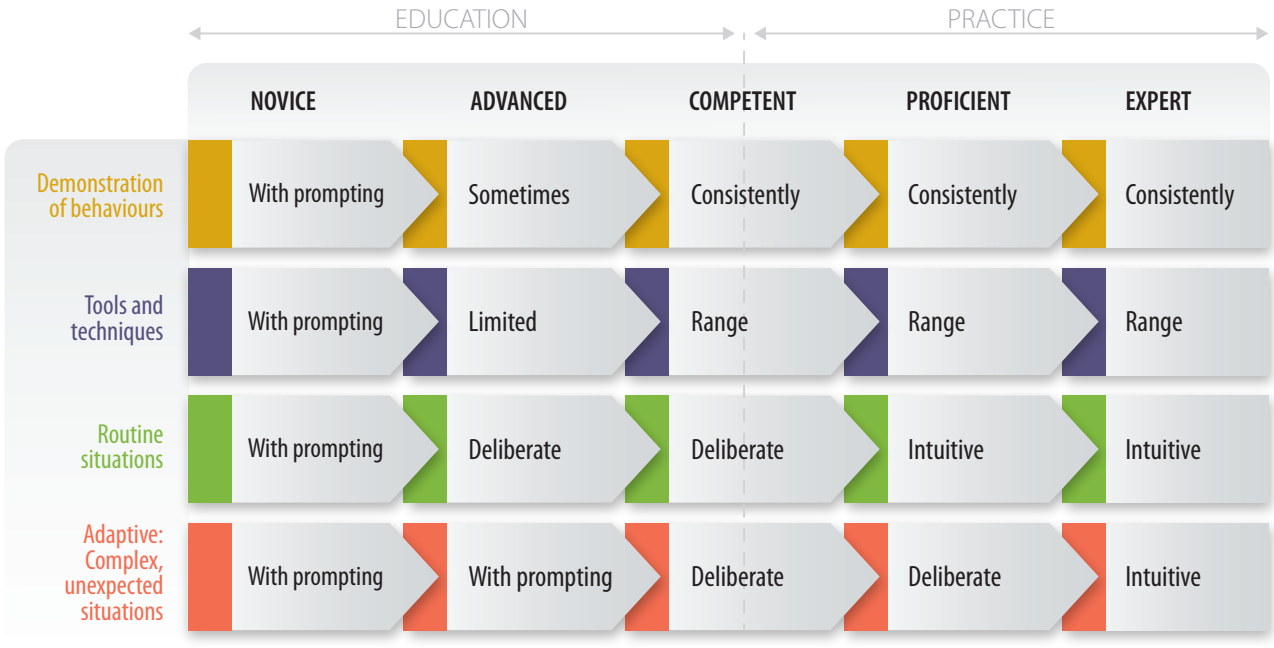
2.1 Using competencies to define competency-based standards

Competence is the performance of tasks within practice activities to the required standard. It is thus essential that those standards reflect the application and integration of competencies at the required level. The behaviours defined in this chapter are written at a general level, such that they are relevant for health workers with a pre-service training pathway of 12–48 months, regardless of setting, role or responsibility. The behaviours may, in addition, have applicability also for other health occupational groups.

The extent to which health workers draw upon the requisite competencies varies according to the tasks of health practice (practice activities) and the context. For example, all health workers need to be able to make decisions effectively at different levels, from deciding to administer a vaccination guided by a decision-making aid, to making ethically challenging decisions related to patient care, to making leadership decisions on the allocation of resources. In these situations, the decision-making process may be the same, but the context and level of responsibility mean that the competency-based standards are very different. The behaviours defined in this framework highlight the different components of a competency expected for quality in UHC services, but require additional specification to be used as a measure of performance (adapt and adopt). To be used as a standard for performance of tasks, the behaviours outlined in this chapter need to be supplemented by details relevant to the practice activity, namely the tools, techniques, situations likely to be encountered, settings (for example, facility, community, conflict zone), people likely to interact with, level of responsibility and level of supervision.

A competent health worker consistently integrates the required competencies into their practice at the defined standard. As health workers increase their proficiency (level of performance), behaviours become more intuitive and less deliberate. Proficiency can continue to increase in practice following completion of any pre-service education programme, with time, experience or lifelong learning. The standards may differ depending on the stage of training or responsibility in practice. Relating the learner's acquisition of competencies to the Dreyfus and Dreyfus (1986) model of skills acquisition *(67)*, which describes the hypothetical stages of competency development, descriptors can be used to illustrate competency development in the context of practice activities (Figure 2.2).

Fig. 2.2 Demonstration of behaviours aligned with the Dreyfus and Dreyfus (1986) model of skills acquisition



These competencies can be used to define curricular content in addition to the knowledge and skills linked to practice activities (see Chapter 3). Attitudes and behaviours can be acquired through training approaches that warrant explicit focus in curricular development and assessment of competence (Table 2.1) *(68–70)*.

Table 2.1 Guiding questions to developing competency-based curricular content for competencies

Curricular content	Guiding questions
Knowledge	• The concepts and theories pertaining to each behaviour • The impact of each behaviour on health practice, health-seeking behaviours and health outcomes • Examples of positive and negative behaviours in the context of practice activities
Skills	• Use of the tools and techniques to integrate behaviours into practice, appropriate for role and responsibility
Attitudes	• The importance of each behaviour • The motivation to perform each behaviour

Note that Chapter 3 provides the framework to identify and define the practice activities within role and responsibility, and the knowledge and skills linked to the performance of tasks. Chapter 4 provides an overview of the process for contextualizing both the competencies and the practice activities to inform curricular outcomes, and the principles and considerations for implementing CBE, including the assessment of competencies.

2.2 Competencies for universal health coverage: overview

The Global Competency Framework for UHC identifies 24 competencies organized into six domains. Although presented as a list, the competencies are interrelated and interdependent.

Domain I: People-centredness

Competencies related to the provision of health services that incorporate perspectives of individuals, caregivers, families and communities as participants in and beneficiaries of health systems

1. Places people at the centre of all practice
2. Promotes individual and community agency
3. Provides culturally sensitive, respectful and compassionate care
4. Incorporates a holistic approach to health

Domain II: Decision-making

Competencies related to the approach to decision-making

5. Takes an adaptive, collaborative and rigorous approach to decision-making
6. Incorporates a systems approach to decision-making
7. Takes a solutions-oriented approach to problem solving
8. Adapts to unexpected or changing situations

Domain III: Communication

Competencies related to effective communication

9. Proactively manages interactions with others
10. Adapts communication to the goals, needs, urgency and sensitivity of the interaction
11. Listens actively and attentively
12. Conveys information purposefully
13. Manages information sharing and documentation

Domain IV: Collaboration

Competencies related to the practice philosophy of teamwork

14. Engages in collaborative practice
15. Builds and maintains trusting partnerships
16. Learns from, with and about others
17. Constructively manages tensions and conflicts

Domain V: Evidence-informed practice

Competencies related to the generation of evidence and information and their integration into practice

18. Applies the principles of evidence-informed practice
19. Assesses data and information from a range of sources
20. Contributes to a culture of safety and continuous quality improvement

Domain VI: Personal conduct

Competencies related to self-governed behaviours

21. Works within the limits of competence and scope of practice
22. Demonstrates high standards of ethical conduct
23. Engages in lifelong learning and reflective practice
24. Manages own health and well-being

2.3 Competencies and behaviours for UHC

Domain I: People-centredness

All health workers have a role in the provision of health services that put people and communities, not diseases, at the centre of health systems and empower people to take charge of their own health rather than being passive recipients of health *(44)*. This requires health workers to consciously adopt an approach to their health practice that incorporates the perspectives of individuals, families and communities as participants in and beneficiaries of trusted health systems. Whilst many of the enabling factors for the provision of integrated people-centred health services are system based, the competencies in this domain, and the behaviours through which these competencies can be demonstrated in practice, reflect the capacity of all health workers to provide integrated people-centred health services. These competencies are relevant to interactions with all people encountered through health services.

Competency 1: Places people at the centre of all practice		
Behaviours	1.1	Provides the best possible health care that supports an approach to health services that is effective, equitable, efficient, inclusive, integrated, people centred, safe and timely
	1.2	Adapts practice to the individual, family and community, including their physical, cognitive, cultural, emotional, linguistic, health literacy and sensory needs and other influences on their engagement with health services
Competency 2: Promotes individual and community agency		
Behaviours	2.1	Supports people to develop their health literacy
	2.2	Demonstrates respect for the autonomy, goals, perspectives, preferences, priorities and rights of individuals, caregivers, families and communities
	2.3	Supports people to develop strategies or access tools to manage their own health and well-being
Competency 3: Provides culturally sensitive, respectful and compassionate care		
Behaviours	3.1	Demonstrates compassion, empathy and respect for all people[3]
	3.2	Adopts an approach to practice that is non-blaming, non-discriminatory, non-judgemental and non-stigmatizing
	3.3	Maintains self-awareness around own beliefs, biases, emotional responses and values
	3.4	Demonstrates cultural sensitivity
	3.5	Embraces individual differences and cultural diversity
	3.6	Challenges the causes and consequences of discrimination, exclusion, prejudice, stigma and other barriers to accessing and utilizing health services
Competency 4: Incorporates a holistic approach to health		
Behaviours	4.1	Supports people to challenge or address their economic, environmental, political and social determinants of health
	4.2	Supports people to manage their health within health system constraints and their determinants of health
	4.3	Incorporates health promotion and disability, disease and injury prevention into interactions
	4.4	Supports individuals, caregivers, families and communities to adopt healthy behaviours
	4.5	Contributes to protecting vulnerable populations

[3] "All people" signifies irrespective of age, asylum or migration status, criminal record, culture, disability, economic status, ethnicity, gender identity and expression, health literacy, health status, language, nationality, race, religion, sex, sexual orientation, treatment adherence, vulnerability to ill-health or other characteristic.

Domain II: Decision-making

All actions taken by a health worker in the course of their practice involve decisions with consequences for the health of others, the use of resources, or others' experiences of health services. Clinical decision-making involves interpreting evidence for a context using judgement on relevance, timeliness, resource implications and others' needs and preferences, sometimes with incomplete information. The complexity of the decisions to be made, the implications of those decisions, and the level of judgement vary according to role and responsibility. However, to provide quality health services, all health workers require competencies to make effective and timely decisions in a range of circumstances, the ability to use decision-making tools and aids, and awareness of the decisions they can make alone or in consultation with others.

Competency 5: Takes an adaptive, collaborative and rigorous approach to decision-making	
Behaviours	5.1 Promotes collaborative decision-making
	5.2 Seeks information and evidence from a range of sources when approaching decision-making
	5.3 Approaches decisions analytically and methodically
	5.4 Adapts the approach to decision-making that reflects the complexity, urgency and consequences of decisions
	5.5 Demonstrates critical thinking to reach decisions that are well reasoned, ethical, evidence informed, feasible, timely and based on the best available information

Competency 6: Incorporates a systems approach to decision-making	
Behaviours	6.1 Uses physical, human and financial resources efficiently
	6.2 Avoids the overuse or misuse of resources
	6.3 Organizes own time and workload effectively
	6.4 Takes responsibility for own decisions and their consequences

Competency 7: Takes a solutions-oriented approach to problem-solving	
Behaviours	7.1 Takes initiative to mitigate anticipated problems
	7.2 Focuses on solutions, end goals and results
	7.3 Creates pragmatic solutions to identified problems

Competency 8: Adapts to unexpected or changing situations	
Behaviours	8.1 Demonstrates flexibility and patience
	8.2 Adjusts priorities to respond to changing situations and demands
	8.3 Demonstrates a calm demeanour under pressure

Domain III: Communication

Communication is fundamental to how health workers guide, inform, support and collaborate with the individuals, caregivers, families and communities for whom they provide health services, as well as with other members of the health team. Effective communication is a process that requires health workers to manage their own verbal and non-verbal communication, respond to the verbal and non-verbal communications of others and complete documentation. Not all communication takes place face to face or in writing, and different situations may require health workers to communicate using augmentative and alternative communication tools and methods, telephones, interpreters and digital technologies.

Competency 9: Proactively manages interactions with others

Behaviours

- 9.1 Clarifies the communication goals[4] for an interaction
- 9.2 Identifies when and how to initiate, conduct and close an interaction
- 9.3 Manages communication barriers due to cognitive, physical or sensory impairment, culture, developmental stage, geography or language
- 9.4 Supports others to communicate for themselves
- 9.5 Manages the physical environment for interactions considering the impact of comfort, privacy, noise, space and temperature

Competency 10: Adapts communication to the goals, needs, urgency and sensitivity of the interaction

Behaviours

- 10.1 Adapts the style, language and method of communication to the interaction
- 10.2 Maintains an approach to communication that is characterized by calmness, compassion, empathy, respect, sensitivity and tact
- 10.3 Seeks to mitigate the impact of own beliefs, biases, emotional responses, opinions and values on verbal and non-verbal communication
- 10.4 Uses relevant abbreviations, language and terminology, translating complex and clinical content into lay terms as necessary
- 10.5 Uses a range of verbal, non-verbal, visual, written and digital communication tools and techniques

Competency 11: Listens actively and attentively

Behaviours

- 11.1 Uses a range of non-verbal cues and verbal affirmations
- 11.2 Supports others to ask questions and openly express experiences, feelings, ideas and opinions
- 11.3 Responds sensitively to what others express

Competency 12: Conveys information purposefully

Behaviours

- 12.1 Provides relevant, accurate and complete information
- 12.2 Presents information clearly, coherently, concisely and organized logically
- 12.3 Differentiates between information as facts, context-specific evidence, opinion and misinformation
- 12.4 Expresses own opinions and perspectives with clarity, confidence and respect
- 12.5 Adopts strategies that encourage a common understanding of information and decisions

Competency 13: Manages information sharing and documentation

Behaviours

- 13.1 Uses a range of health-related information management tools, including individual health records
- 13.2 Keeps people informed about health risks and relevant aspects of their health care
- 13.3 Shares information with relevant others in a timely manner
- 13.4 Complies with ethical and legal requirements for obtaining, recording, sharing, retaining and destroying information acquired in an occupational capacity

[4] Communication goals describe the desired outcomes of the interaction, for example, conveying or receiving information, persuading, building trust or providing support, and the urgency.

Domain IV: Collaboration

The philosophy of team work underpins health practice *(5)*, involving collaboration with other health workers, intersectoral collaboration, and collaboration with individuals, caregivers, families and populations as informed members of the health team. Some health workers will have responsibilities to lead teams and may take a more formal role to facilitate teams, as explored through the practice activities; but all health workers are part of multiple formal and informal teams in the course of their practice.

Competency 14: Engages in collaborative practice	
Behaviours	14.1 Engages with others across cultural, geographical, organizational and sectoral boundaries, and with individuals, caregivers, families and communities, as partners
	14.2 Jointly negotiates roles and responsibilities to maximize strengths within a team
	14.3 Fulfils agreed ways of working within the health team
	14.4 Enables others to make their contribution to a team
	14.5 Celebrates shared outcomes, goals and values

Competency 15: Builds and maintains trusting partnerships	
Behaviours	15.1 Maintains constructive and collaborative working relationships with others, whether or not a formal team exists
	15.2 Strives to develop a positive rapport with others characterized by respect, support and trust
	15.3 Maintains ethical boundaries with other members of the health team
	15.4 Minimizes the impact of hierarchical differences on health outcomes

Competency 16: Learns from, with and about others[5]	
Behaviours	16.1 Demonstrates willingness to learn from others' experiences of the health system, health conditions and lived environment
	16.2 Seeks constructive, sensitive and timely feedback, support and advice
	16.3 Provides constructive, sensitive and timely feedback, support and advice
	16.4 Learns from interactions with others and feedback processes
	16.5 Engages in opportunities to improve collaboration within and between teams

Competency 17: Constructively manages tensions and conflicts	
Behaviours	17.1 Anticipates, identifies, acts upon and learns from tensions or potential areas of conflict
	17.2 Focuses on the sources of tensions rather than arising conflicts
	17.3 Supports a blame-free environment in which one is safe to question and seek support and guidance
	17.4 Considers different perspectives when seeking compromise, consensus or a decision
	17.5 Uses diplomacy to mediate, negotiate or persuade
	17.6 Takes positive action to avoid and dispel abuse, harassment or other disruptive behaviours

[5] Others includes individuals, families, caregivers, communities and other health workers.

Domain V: Evidence-informed practice

Evidence-informed practice enables individuals and communities to receive the best possible care regardless of where they live, improves quality and safety, and contributes to better health outcomes *(71)*. Health workers routinely acquire and interpret high volumes of data, information and evidence from individuals, caregivers, families, communities and other health workers, as well as from experts, journals, guidelines, government, websites and media. This information varies in relevance, detail and accuracy. In the health context, evidence is usually high-quality information gained from research, and is therefore more predictable and reliable. Whilst all evidence is information, not all information is evidence. To provide the best possible health care, service provision must be evidence informed. The ways through which an individual health worker implements evidence-informed practice depends on their role and responsibility: from strictly following evidence-based protocols and guidelines, to integrating evidence with experience and individuals' values according to the circumstances. This domain focuses on the competencies related to the application of the best available evidence from scientific or published research studies to practice; the appraisal and integration of data and information; and the role of the health worker in generating and using information and adapting it to guide quality of care, safety and improvement efforts in the local context.

Competency 18: Applies the principles of evidence-informed practice	
Behaviours	18.1 Maintains awareness of evidence-informed practice
	18.2 Integrates current best available evidence into practice
	18.3 Promotes evidence-informed practice amongst colleagues
	18.4 Participates in the generation and application of evidence

Competency 19: Assesses data and information from a range of sources	
Behaviours	19.1 Identifies the need for additional data and information
	19.2 Promotes access to data, information and evidence
	19.3 Seeks data, information and evidence from a range of sources
	19.4 Critically appraises the limitations, quality, relevance and significance of data, information and evidence
	19.5 Manages the risks of harm from misinformation

Competency 20: Contributes to a culture of safety and continuous quality improvement	
Behaviours	20.1 Adheres to safety protocols that avoid adverse events, health care errors, and incidents of harm and unsafe practice
	20.2 Learns from what works and what has not gone well
	20.3 Offers suggestions for improvement to address identified problems
	20.4 Participates in quality measurement and continuous quality improvement processes

Domain VI: Personal conduct

The way that health workers conduct themselves in the course of their practice has implications for safety and quality in health care and fostering trust. The competencies in this domain describe the ethical principles that guide a health worker in their day-to-day practice and in a range of situations, and their rights and responsibilities in managing their own health, engaging in lifelong learning and working within a regulated scope of practice. Health workers can take a proactive role in identifying and resolving challenges when issues do arise, ultimately to ensure their own health, well-being and competence, which in turn serves to benefit the individuals and community they serve.

Competency 21: Works within the limits of competence and scope of practice

Behaviours

- 21.1 Maintains awareness of own competence and scope of practice
- 21.2 Adheres to the duties, obligations and codes of conduct defined by occupational standards, legal regulations and organizational procedures
- 21.3 Seeks guidance when encountering situations beyond competence or scope of practice

Competency 22: Demonstrates high standards of ethical conduct

Behaviours

- 22.1 Acts with honesty, integrity and transparency
- 22.2 Upholds legal and ethical principles, including capacity, confidentiality, consent, conflict of interest, duty of care, dignity, privacy and safeguarding
- 22.3 Consults with others in situations with ethical implications
- 22.4 Refuses individual gifts or other forms of influence intended to coerce or invite personal favour

Competency 23: Engages in lifelong learning and reflective practice

Behaviours

- 23.1 Seeks and engages in continuous formal and informal learning linked to current and emerging practice responsibilities
- 23.2 Engages in self-learning and reflective practice
- 23.3 Seeks to address any negative impact of own attitudes, behaviours and gaps in competence or practice

Competency 24: Manages own health and well-being

Behaviours

- 24.1 Monitors own mental, physical and social health and well-being
- 24.2 Uses a range of strategies to manage fatigue, ill-health, stress and the impact of exposure to distressing and emergency situations
- 24.3 Seeks help or support where needed for own health and well-being
- 24.4 Engages in self-care practices that promote emotional resilience, health and well-being

3. Practice activities: an organizing framework for integrating competencies into outcomes-based curricula

This practice activities section provides an organizing framework with two broad applications: (a) for describing roles and responsibilities within a team using a common language; and (b) for the (re)design of competency-based curricula to enable the performance of those defined responsibilities. Each practice activity describes a core function of health practice comprising groups of related tasks. Practice activities are time limited, trainable and, through the performance of tasks, measurable. Individuals may be certified to perform practice activities, with specified limitations.

This framework has been created for the purpose of being applicable to health workers with a pre-service training pathway of 12–48 months, with selection and specification according to roles and responsibilities. Alternative specifications or additional practice activities could be used to adapt to wider responsibilities in the provision of health services outside the responsibilities of these groups of health workers, for example curricular development, facility cleaning or maintenance, governance, laboratory testing services, systems planning and supply chain management.

Typically, a single occupational group would not have responsibilities across all practice activities. Many of the tasks within practice activities can also be performed by other health workers with shorter or longer or more specialized training programmes, and higher-level tasks or extended breadth of responsibilities could also be part of career development. The range of health services and the level of supervision for the performance of these practice activities must be defined for them to be used to inform the development of outcomes-based curricula.

The practice activities are organized into three domains – individual health, population health, and management and organization (Figure 3.1) – through the lens of primary health care. Whilst each practice activity describes a discrete function of health practice, a single clinical encounter may require any number of practice activities in any sequence, without pause or acknowledgement of their start or end.

Fig. 3.1 Practice activity domains for health service provision

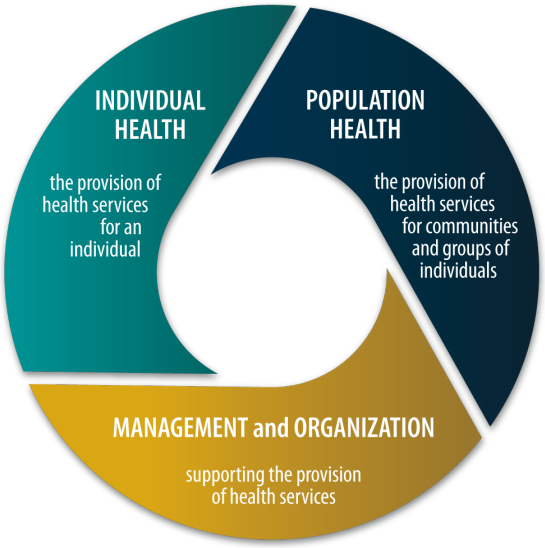
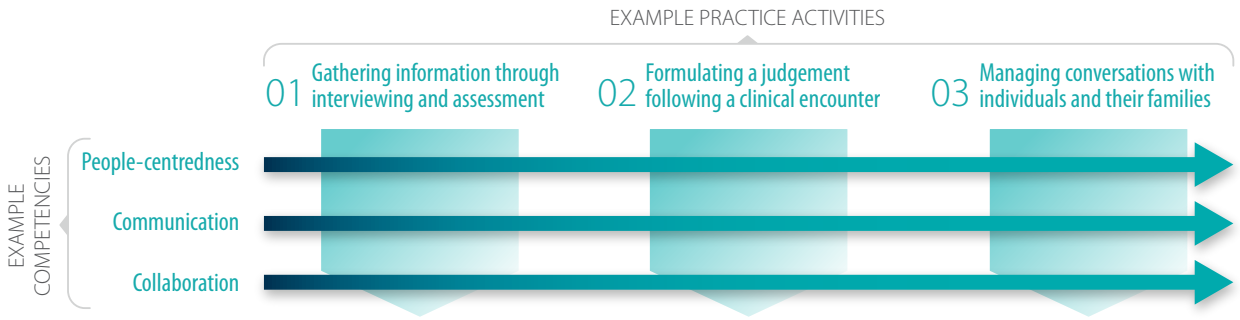


Fig. 3.2 Defining competency-based performance standards for practice activities



Competencies (expressed through behaviours) enable the performance of practice activities (encompassing tasks) of the quality required for effective provision of health services that fully contribute to attainment of UHC. They must therefore be interpreted together, as illustrated in Figure 3.2.

3.1 Curricular guides for practice activities

A key characteristic of CBE is that curricular content is linked to outcomes. This means that any learning related to knowledge, skills, attitudes or behaviours is rooted in its relevance for the performance of practice activities to the level of proficiency required. There are four dimensions to the practice activities in this framework to support the development of curricula where the practice activity reflects role and responsibility – title; composite tasks; curricular content guide; and illustrative occupational profiles that link the selection of curricular content to the tasks.

A curricular guide for each practice activity is provided as a reference for the knowledge and skills. These more or less universal guides for the knowledge and skills required for the performance of tasks within practice activities may be supplemented by local knowledge and specified to the breadth of tasks within programme outcomes as part of the contextualization of the framework.

Illustrative profiles are provided to guide the adaptation of the practice activities and curricular guides to a specific context. The four illustrative profiles were developed to reflect varying levels of autonomy in clinical decision-making and varying duration of pre-service education: nursing associate professional, community health worker (CHW), nursing professional and paramedical practitioner, as described in Table 3.1.

Where an area of curricular content is relevant for all four profiles, it may still vary in relation to the role and responsibility in the health system. For example, within "practice activity 14: providing non-pharmacological health interventions", the knowledge of "methods and techniques for the intervention, including safety and quality checks and management of potential complications or adverse events" is ticked for all four occupational profiles. However, the number and range of procedures or therapies varies, and the methods of management will vary from seeking help to performing additional clinical interventions.

Table 3.1 Illustrative health worker profiles for practice activities

Variable	Profile A	Profile B	Profile C	Profile D
Profile	Short pre-service education, limited clinical decision-making autonomy: e.g. nursing associate professional (ISCO-08 3221)	Short pre-service education, limited clinical decision-making autonomy: e.g. community health worker (ISCO-08 3253)	Longer pre-service education, some clinical decision-making autonomy: e.g. nursing professional (ISCO-08 2221)	Longer pre-service education, substantial clinical decision-making autonomy: e.g. paramedical practitioner (ISCO 08-2240)[a]
ISCO main group	Health associate professional	Health associate professional	Health professional	Health professional
Typical duration of training	12–24 months	12–24 months[b]	24–48 months	24–48 months
Brief overview of responsibilities	Predominant role in treatment support and health promotion and prevention May carry out basic procedures in support of management plan	Narrow scope of practice for treatment and classification of conditions Predominant role in treatment support, referral, home care and health promotion and prevention	Wide scope of practice across prevention, promotion and care; scope of practice relating to non-medical diagnosis and treatment, usually in the context of a management plan agreed with others May take leadership or management role	Wider scope of practice across prevention, promotion and care; scope of practice includes diagnosis and treatment, usually with specified limitations (provision of routine basic procedures or specific complex or surgical procedures or diagnostics) May take leadership or management role
Level of supervision	Works with close monitoring and supervision		Works autonomously for the most part, with some supervision or delegated responsibilities from the senior health worker in the team	
Complexity of clinical decision-making	Limited clinical decision-making	Clinical decision-making following standardized protocols and prescriptive options	Decision-making related to implementation of treatment plan	Medical diagnosis; decisions related to management, prioritization or rationalization of resources
Role in clinical decision-making	Mainly protocol based		Adapts protocols to the individual	

[a] Some nursing professionals acquire through additional training and licensing additional areas of competence that grant them greater clinical decision-making autonomy. Specialized nursing staff should be considered for the purpose of this document as part of the illustrative category in the profile D grouping.

[b] In contexts where CHWs receive less than 12 months' training, the role is narrower and typically limited to the standardized application of public health, diagnostic or case management protocols.

Chapter 4 provides an overview of the principles and considerations for implementing CBE. When using these guides to develop curricula, the following considerations are necessary.

- What is the specification of the practice activity – What are the tasks within role and responsibility? What are the health interventions or presentation of symptoms relevant for this practice activity? What are the tools and techniques to be used? What is the level of supervision?

- What are the knowledge and skills that enable the performance of the practice activity with the above specification? This may or may not include all of the knowledge and skills outlined in the guide, depending on the range of tasks selected. What is the depth of knowledge or comprehension? What is the local or contextual knowledge?

- What is the curricular content that overlaps or is common to multiple practice activities? This can be useful to consider when progressively building learning activities sequentially, rather than repeating similar content multiple times throughout a programme.

3.2 Practice activities for universal health coverage: overview

Practice activities are the core functions of health practice. They comprise groups of related tasks that may be undertaken by one person or groups of people, and represent the integration and application of knowledge, skills and attitudes to practice. Practice activities are time limited, trainable and, through the performance of tasks, measurable.

The Global Competency and Outcomes Framework for UHC identifies 35 practice activities organized into three domains where health workers with a pre-service training pathway of 12–48 months may have responsibilities, depending on the setting and scope of practice. Typically, a single occupational group would not have responsibilities across all practice activities.

Domain I: Individual health

Practice activities relating to the provision of health services for an individual

1. Gathering information through interviewing and assessment
2. Formulating a judgement following a clinical encounter
3. Managing conversations with individuals and their families
4. Advocacy for individual health needs
5. Providing information and support to impact individual health behaviours
6. Gaining informed consent
7. Ordering, administering and interpreting the results of diagnostic and screening procedures
8. Developing and adjusting a management plan
9. Prescribing medications or therapeutics
10. Preparing and dispensing medications or therapeutics
11. Administering medications or therapeutics
12. Selecting assistive products
13. Providing assistive products
14. Providing non-pharmacological health interventions
15. Providing treatment and care support to individuals
16. Managing end-of-life and bereavement care
17. Reporting notifiable diseases, conditions or events
18. Providing or receiving a clinical presentation
19. Moving and transporting individuals
20. Coordinating transfer to another care environment

Domain II: Population health

Practice activities relating to the provision of health services for communities and groups of individuals

21. Assessing community health needs
22. Planning and delivering community health programmes
23. Managing public health communication
24. Developing preparedness for health emergencies and disasters, including disease outbreaks
25. Responding to health emergencies and disasters, including disease outbreaks
26. Advocacy for community health needs

Domain III: Management and organization

Practice activities relating to the effective use of human, physical and financial resources

27. Accessing and documenting information
28. Registering individuals for health services
29. Delivering quality improvement activities
30. Providing workplace-based learning and supervision
31. Managing human resources
32. Managing financial resources
33. Managing physical resources
34. Participating in evaluation and research
35. Developing, evaluating and implementing local policies, procedures and guidelines

PRACTICE ACTIVITY 1
GATHERING INFORMATION THROUGH INTERVIEWING AND ASSESSMENT

Tasks		1. Establishing the purpose of the interaction 2. Gathering and confirming information through interviewing 3. Determining the clinical objectives, nature and timing of a cognitive, emotional, mental, physical and social assessment 4. Conducting a cognitive, emotional, mental, physical or social assessment 5. Developing a shared understanding of health needs
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Obtaining a basic history using a predefined protocol or questionnaire • Conducting a visual examination and basic physical and mental assessment, usually for the purpose of administering brief procedures or determining extent of injury
	Profile B (e.g. CHW)	
	Profile C (e.g. nurse)	• Obtaining a full and comprehensive history through targeted questioning • Conducting a cognitive, emotional, mental, physical or social assessment using a range of tools and techniques for the purpose of evaluating risks, symptoms and priorities • Gathering information in difficult situations such as non-cooperation, reduced consciousness or cognitive impairment
	Profile D (e.g. paramedical practitioner)	

Curricular content		A	B	C	D
1.	The role of information gathered from the individual through interviewing and assessment in guiding interactions, and clinical judgements concerning the health services to be provided	√	√	√	√
2.	The role of the environment in ensuring privacy, confidentiality and putting the individual at ease	√	√	√	√
3.	The importance of tailoring the interaction to the purpose; the urgency (which may emerge through the process of information gathering); and the availability of resources (time and equipment)	√	√	√	√
4.	The information to be gathered, which may include history of current illness or episode; past family, medical, medication, obstetric, gynaecological, psychological, sexual, social or surgical history; immunizations; allergies; pain; symptoms	√	√	√	√
5.	The clinical information to be gathered, which may include vital signs and components of a physical examination	√	√	√	√
6.	The non-clinical information to be gathered, which may include personal circumstances, access to health financing, attitudes, concerns, and priorities and expectations	√	√	√	√
7.	The methods, tools and techniques to obtain a clinical and non-clinical history relevant to scope of practice	√	√	√	√
8.	The methods, tools and techniques for the visual examination and cognitive, emotional, mental, physical and social assessment relevant to scope of practice	√	√	√	√
9.	Symptoms or indications requiring urgent escalation of care	√	√	√	√
10.	The impact of disease, trauma or co-morbidities on the presentation of clinical signs			√	√
11.	The impact of the determinants of health; culture; myths, misconceptions, stereotyping and cultural attitudes; personal situation (including family, employment or finances); and religious or political views on the information that individuals share			√	√
12.	The possibility for undisclosed complaints	√	√	√	√
13.	Indications of physical, psychological or sexual abuse, human trafficking or substance use, and appropriate actions and responses if suspected	√	√	√	√
14.	The range of emotional and physical responses an individual, their family and witnesses may experience, and approaches to respond	√	√	√	√
15.	Indicators of health and well-being appropriate to the age group, race, sex and other characteristics	√	√	√	√
16.	Additional needs of vulnerable populations in accessing and engaging with health services, including in emergency situations	√	√	√	√
17.	The anatomy and physiology of the human body as it relates to presenting concerns	√	√	√	√
18.	Etiology of common conditions and their signs, symptoms and risk factors	√	√	√	√
19.	Health and safety measures, including infection prevention and control (IPC) and the use and disposal of personal protective equipment (PPE)	√	√	√	√
20.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√	√	√	√
21.	The principles of patient safety and quality of care	√	√	√	√

PRACTICE ACTIVITY 2

FORMULATING A JUDGEMENT FOLLOWING A CLINICAL ENCOUNTER

Tasks		1. Interpreting information gathered from and about the individual and their health needs 2. Assessing the degree of urgency for a response 3. Confirming or excluding hypotheses (including screening, diagnosis) 4. Making a clinical judgement (including diagnosis)
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Interpreting objective information from brief history and monitoring of vital signs for a limited range of purposes, such as: – recognizing and responding to urgent and emergency presentations – evaluating the ongoing status of an individual receiving care – screening for health conditions requiring referral for diagnosis
	Profile B (e.g. CHW)	• Interpreting subjective and objective information from a history, visual or physical assessment and some point-of-care diagnostic tests for a limited range of purposes, such as: – recognizing and responding to urgent and emergency presentations – assessing vulnerability to developing a health condition – classifying and treating specified conditions according to decision-making aids – screening for health conditions requiring referral for diagnosis
	Profile C (e.g. nurse)	• Interpreting subjective and objective information from history, visual or physical assessment and some point-of-care diagnostic tests for a range of purposes, including: – recognizing and responding to urgent and emergency presentations – assessing vulnerability to developing a health condition – making a specific limited diagnosis under the responsibility of a senior health worker
	Profile D (e.g. paramedical practitioner)	• Interpreting subjective and objective information from a range of sources for a range of purposes, such as: – recognizing and responding to urgent and emergency presentations – determining death and cause of death under the responsibility of a senior health worker – making clinical judgements in complex situations, for example with co-morbidities, or, in the absence of full information, under the responsibility of a senior health worker – making a differential diagnosis or clinical diagnosis under the responsibility of a senior health worker

Curricular content		A	B	C	D
1.	The signs and symptoms of urgent and emergency clinical conditions, and of imminent death	√	√	√	√
2.	The purpose for which a clinical judgement is needed	√	√	√	√
3.	The rationale, benefits and risks associated with diagnosis	√	√	√	√
4.	The role of evidence, contextual information, observation, reflection and decision-making in reaching a clinical judgement			√	√
5.	Frameworks to interpret and assess information and evidence for the context	√	√	√	√
6.	The use of decision-making aids and pattern recognition	√	√	√	√
7.	Approaches to evaluate the confidence and completeness of information gathered			√	√
8.	The extent to which a clinical judgement can be made on the basis of information obtained	√	√	√	√
9.	The range and implications of normal and abnormal results from the relevant diagnostic procedures or investigations			√	√
10.	Key diagnostic biases, common errors, and issues relating to diagnosis in the face of ambiguity and incomplete data			√	√
11.	The anatomy and physiology of the human body as it relates to presenting concerns	√	√	√	√
12.	Etiology of common conditions and their signs, symptoms and risk factors	√	√	√	√
13.	The diagnostic criteria, namely the signs, symptoms and indications of specific health conditions, including staging if relevant			√	√
14.	Signs, symptoms and indications that may have similar presentations for multiple health conditions			√	√
15.	Multimorbidity and atypical presentations appropriate to age, gender, race and other characteristics			√	√

PRACTICE ACTIVITY 3
MANAGING CONVERSATIONS WITH INDIVIDUALS AND THEIR FAMILIES

Tasks		1. Planning for the conversation 2. Initiating the conversation 3. Gathering information about the individual's current understanding, expectations and concerns 4. Providing information 5. Responding to the other person 6. Discussing, summarizing information and providing support or direction 7. Closing the conversation
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Managing conversations about the practical arrangements for an agreed management plan; listening to individual concerns or feelings
	Profile B (e.g. CHW)	• Managing conversations that may include communicating a diagnosis based on screening criteria; discussing an agreed management plan; contact notification for communicable diseases
	Profile C (e.g. nurse)	• Managing difficult conversations, for example facilitating partner or family notification of a diagnosis; discussing an agreed management plan, including end-of-life care; breaking bad news (including death)
	Profile D (e.g. paramedical practitioner)	• Managing difficult conversations, for example facilitating partner or family notification of a diagnosis; discussing a proposed management plan, including end-of-life care; reaching shared decisions; breaking bad news (including death); discussing organ donation and procurement

Curricular content		A	B	C	D
1.	Methods to tailor the conversation to achieve the goal, including information to be conveyed or gathered, support to be provided, and collaborative decision-making	√	√	√	√
2.	The importance of preparation for the conversation, including the facts and their implications; the level of disclosure, for example to whom and when; the physical environment; how to manage potential barriers to communication; and the rights and entitlements of the individual	√	√	√	√
3.	Any likely challenges during the encounter, and phrases, approaches and methods to provide support to the individual and achieve the goal of the conversation	√	√	√	√
4.	The impact of bad news and potential emotional responses, including the stages of grief, and coping and response mechanisms			√	√
5.	The impact of bad news on comprehension, satisfaction with health care, level of hopefulness and subsequent psychological adjustment	√	√	√	√
6.	Clinical terminology, including abbreviations and how to translate these into lay terms			√	√
7.	The impact of culture, finance, religion and politics on views and behaviours with regard to health, care seeking, illness and disease	√	√	√	√

PRACTICE ACTIVITY 4

ADVOCACY FOR INDIVIDUAL HEALTH NEEDS

Tasks		1. Clarifying the individual's health literacy and health needs 2. Identifying a problem and potential solutions 3. Providing support to the individual to help them manage their own health or access health services 4. Representing the individual and their rights in decisions about their care
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Providing aspects of practical help, linking the individual with other health services • Helping the individual understand information about their health and their options • Helping the individual to express themselves, ask questions or ask for help • Representing the individual and their rights in decisions, particularly during transfers of care
	Profile B (e.g. CHW)	
	Profile C (e.g. nurse)	
	Profile D (e.g. paramedical practitioner)	

Curricular content		A	B	C	D
1.	The range of factors that might affect an individual's health literacy	√	√	√	√
2.	The range of factors that might affect an individual's ability to ensure their own health needs are met	√	√	√	√
3.	The range of barriers to accessing health services that an individual may experience	√	√	√	√
4.	Additional needs of specific vulnerable populations in accessing and engaging with health services	√	√	√	√
5.	The social and environmental determinants of health and well-being	√	√	√	√
6.	Methods of supporting the individual to express themselves or ask for help	√	√	√	√
7.	Approaches to, and resources for, providing practical help	√	√	√	√
8.	The opportunities for advocacy with decision-makers about an individual's health care	√	√	√	√
9.	Tools and techniques to advocate, persuade and negotiate	√	√	√	√
10.	Sources of further information and support, including community programmes	√	√	√	√
11.	Structures, functions and authorities of actors within the health system	√	√	√	√
12.	The contextual information relating to the individual's health needs	√	√	√	√

PRACTICE ACTIVITY 5
PROVIDING INFORMATION AND SUPPORT TO IMPACT INDIVIDUAL HEALTH BEHAVIOURS

Tasks		1. Evaluating information to identify the target areas or behaviours for an individual 2. Providing information about positive and harmful behaviours 3. Collaborating with the individual to identify health behaviour changes 4. Distributing non-medical supplies, such as bednets or pedometers 5. Referring to services to support behaviour change efforts, such as tobacco cessation centres 6. Monitoring and tracking behaviour change
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Responding to requests for health information in general terms • Distributing non-medical supplies • Referring to services to support behaviour change efforts
	Profile B (e.g. CHW)	• Providing targeted and tailored education, information, counselling and advice • Distributing non-medical supplies • Referring to services to support behaviour change efforts
	Profile C (e.g. nurse) Profile D (e.g. paramedical practitioner)	• Providing targeted and tailored information, counselling and motivational therapies • Supporting the individual to identify motivations and barriers to change, develop a perception of their own risk, and have control over their own health choices • Distributing non-medical supplies • Referring to services to support behaviour change efforts • Monitoring and tracking behaviour change and health impact

Curricular content		A	B	C	D
1.	The principles and purpose of health promotion and disease, disability and injury prevention	√	√	√	√
2.	The concepts and theories of behaviour change		√	√	√
3.	Methods to identify and understand the individual's level of health literacy	√	√	√	√
4.	Positive and safe behaviours appropriate to the age group and life stage	√	√	√	√
5.	Populations at risk of specific conditions and the needs of different people at different life stages		√	√	√
6.	The impact of different factors on health, including conflict or war; diet and nutrition; exercise; household environment, such as electricity, shelter, water and sanitation; alcohol, drug and substance use; firearms; hygiene; immunizations; inactivity; pollution and environmental factors; preventive health checks; physical, psychological or sexual abuse; and road safety	√	√	√	√
7.	Indications of actual or potential threats to an individual's health	√	√	√	√
8.	Indications of physical, psychological or sexual abuse, human trafficking or substance use, and appropriate actions and responses if suspected	√	√	√	√
9.	The role of different organizations if intervening when an individual is vulnerable or at risk			√	√
10.	The legal implications and safety measures for own protection if intervening when an individual is vulnerable or at risk	√	√	√	√
11.	Contributing factors to an individual's actual and perceived susceptibility and severity of a health threat		√	√	√
12.	Actions that an individual can take to reduce the risk or seriousness (how, what, when and where) of harmful behaviours, and the actual and perceived benefits and barriers to taking action (why)	√	√	√	√
13.	The range of motivations people have for changing their behaviours		√	√	√
14.	The impact of individuals' perceptions of risks, threats, barriers and efficacy on their willingness to make changes		√	√	√
15.	The range of cues to action that may activate a readiness to change		√	√	√
16.	Relevant educational and informational materials in formats appropriate to the individual's health literacy	√	√	√	√
17.	Availability of and access to non-medical supplies and any instructions for correct use	√	√	√	√
18.	Availability of targeted health services, such as community-based services, counselling, food programmes, hospice care, peer-to-peer or virtual support groups, or shelters	√	√	√	√
19.	Additional needs of vulnerable populations in accessing and engaging with health services	√	√	√	√
20.	Availability and accessibility of complementary and alternative services and medicines		√	√	√
21.	Methods and techniques to enable behaviour change, such as motivational interviewing, cognitive behavioural methods, behavioural reinforcement techniques, peer support, adult learning methods, solution-focused therapy, goal setting and recognizing incremental successes			√	√

PRACTICE ACTIVITY 6

GAINING INFORMED CONSENT

Tasks		1. Clarifying information about the individual and their concerns 2. Sharing information about the procedures or treatments 3. Addressing the individual's concerns 4. Confirming the individual's comprehension 5. Confirming verbal consent or reconsent 6. Documenting written consent or reconsent
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Obtaining informed consent for the procedures or treatments within role and responsibility
	Profile B (e.g. CHW)	
	Profile C (e.g. nurse)	
	Profile D (e.g. paramedical practitioner)	

Curricular content		A	B	C	D
1.	The ethical and legal aspects of care, including goals of care, best-interest care decisions, advance directives (including to refuse treatment), surrogate decision-making	√	√	√	√
2.	The principles and components of informed consent	√	√	√	√
3.	The legal and ethical implications of verbal or written informed consent	√	√	√	√
4.	The moral and legal autonomy of the individual to make decisions about their health	√	√	√	√
5.	The situations in which to obtain voluntary informed consent and reconsent, and when consent can be assumed	√	√	√	√
6.	Methods to determine an individual's decision-making capacity, and the steps for gaining informed consent from a caregiver	√	√	√	√
7.	Cultural factors impacting whom to obtain consent from	√	√	√	√
8.	The impact of culture, finance, religion and politics on views and behaviours towards health, care seeking, illness and disease	√	√	√	√
9.	The range of individual preferences for considering their options, including the right to refuse information, and time to reflect	√	√	√	√
10.	The nature, purpose, risks and benefits of the proposed health intervention	√	√	√	√
11.	Potential care alternatives, including nature, purpose, risks and benefits	√	√	√	√
12.	The role of the health worker in helping the individual make a voluntary decision	√	√	√	√
13.	The differences between objectivity, coercion, manipulation and persuasion	√	√	√	√
14.	Approaches to managing situations in which consent is not given	√	√	√	√
15.	The evidence and documentation required for informed consent	√	√	√	√

PRACTICE ACTIVITY 7
ORDERING, ADMINISTERING AND INTERPRETING THE RESULTS OF DIAGNOSTIC AND SCREENING PROCEDURES

Tasks		1. Evaluating information to determine when a procedure is needed 2. Explaining the risks and benefits of a proposed procedure 3. Ordering the procedure (if externally conducted) 4. Planning for the administration of the procedure 5. Preparing the individual physically and psychologically to undergo the procedure 6. Conducting the procedure, promoting or supporting the individual to use a self-care intervention 7. Evaluating outputs of the procedure to determine if satisfactory for diagnostic interpretation 8. Interpreting the results of the procedure
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Providing support tasks, such as making arrangements for the individual to attend the procedure • Providing assistance during a more complex procedure, for example preparing, positioning or monitoring the individual
	Profile B (e.g. CHW)	• Collecting specimens for testing • Administering and interpreting the results of specified point-of-care diagnostic tests or procedures, or supporting use of a self-care intervention • Providing support tasks, such as making arrangements for the individual to attend the procedure
	Profile C (e.g. nurse)	• Collecting specimens for testing • Administering and interpreting the results of specified point-of-care diagnostic tests or procedures, or supporting use of a self-care intervention • Providing assistance during a more complex diagnostic procedure, for example preparing, positioning or monitoring the individual
	Profile D (e.g. paramedical practitioner)	• Collecting specimens for testing, or supporting use of a self-care intervention • Ordering and interpreting procedural reports, sometimes under the responsibility of a senior health worker • Administering and interpreting the results of specified diagnostic investigations or procedures under the responsibility of a senior health worker • Ordering and interpreting the reports of specified diagnostic procedures under the responsibility of a senior health worker

Curricular content		A	B	C	D
1.	The role of diagnostic procedures in confirming or eliminating diagnostic hypotheses	√	√	√	√
2.	The indications for the procedure			√	√
3.	The range of potential diagnoses relating to the presenting symptoms			√	√
4.	The symptoms that may be a secondary presentation of an underlying cause			√	√
5.	The range of investigations appropriate to the presenting symptoms			√	√
6.	Known and potential contraindications for the range of investigations, risks and benefits, costs, access and availability			√	√
7.	Approaches to evaluate the effectiveness, relevance and implications of proceeding, with due consideration of related risks			√	√
8.	The anatomy, physiology, pathology and related structures, as relevant to the investigation and to the characteristics of the individual			√	√
9.	The steps to administer the procedure	√	√	√	√
10.	The techniques and procedural skills for the procedure	√	√	√	√
11.	The resource implications for conducting the procedure and for follow-up care, including personnel, tools and equipment, and medications				√
12.	Methods to adapt the administration of the procedure or investigation to the characteristics of the individual			√	√
13.	The optimum conditions for obtaining best results, including quality assurance processes, positioning or preparation of the individual	√	√	√	√
14.	The range of expected and unexpected individual responses to specific investigation, and indications of adverse reactions	√	√	√	√
15.	Methods to manage and report adverse events	√	√	√	√
16.	The capabilities and limitations of any tools or equipment used	√	√	√	√
17.	The importance of calibration and routine maintenance of tools or equipment; indicators of malfunctions or that they are not fit for use	√	√	√	√
18.	The interpretation of the results of the diagnostic test		√	√	√

PRACTICE ACTIVITY 7, continued

ORDERING, ADMINISTERING AND INTERPRETING THE RESULTS OF DIAGNOSTIC AND SCREENING PROCEDURES

19.	Key diagnostic biases, common errors, and issues relating to diagnosis in the face of ambiguity and incomplete data			√	√
20.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√	√	√	√
21.	The principles of patient safety and quality of care	√	√	√	√
22.	Relevant clinical terminology and measurements that may be used by different health workers or in different care environments	√	√	√	√

PRACTICE ACTIVITY 8
DEVELOPING AND ADJUSTING A MANAGEMENT PLAN

Tasks		1. Evaluating information gathered about the individual's health needs 2. Evaluating the health management options and pathways available 3. Proposing a management plan in agreement with the individual and other members of the health team, as appropriate 4. Identifying resources for the management plan 5. Overseeing the implementation and monitoring of the management plan 6. Adjusting the management plan
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Proposing a management plan following an assessment of health needs, usually promotive or preventive
	Profile B (e.g. CHW)	• Developing a standard management plan for specified health needs, which can usually be identified or classified at first visit, including common ailments or minor injuries • Monitoring an individual's response to a management plan developed by others and making recommendations for review
	Profile C (e.g. nurse)	• Developing and implementing management plans in collaboration with other health workers • Making decisions on pathways of care, including transferring to palliative care or other care environments • Monitoring an individual's response to management plans and making recommendations for review
	Profile D (e.g. paramedical practitioner)	• Developing, reviewing, adjusting and implementing management plans in collaboration with other health workers for a range of circumstances or conditions • Making decisions on pathways of care, including transferring to palliative care or other care environments

Curricular content		A	B	C	D
1.	The role and characteristics of a team-based, people-centred management plan	√	√	√	√
2.	The ethical and legal aspects of care, including goals of care, best-interest care decisions, advance directives (including to refuse treatment), surrogate decision-making	√	√	√	√
3.	The people to involve in reaching agreement on a management plan, including referral, involving the individual, other health workers and others in other care settings		√	√	√
4.	The range of potential barriers to effective implementation of health management plans and the mitigation thereof	√	√	√	√
5.	The relevance of the individual's personal circumstances, including their attitudes, cultural beliefs and practices; concerns, priorities and expectations for care; barriers to and acceptability of treatment options; and associated misconceptions, myths, stereotyping or stigma associated with the management plan	√	√	√	√
6.	The individual's access to financial resources or ability to pay for health services and other costs (for example, loss of earnings, transportation)	√	√	√	√
7.	The relevance to the management plan of a likely diagnosis; causal factors; the individual's clinical status, response or past treatment adherence; allergies; and access to necessary tools, treatments or aids in routine or emergency situations	√	√	√	√
8.	The completeness of and confidence in the information obtained from the available subjective and objective information	√	√	√	√
9.	The evidence base for pharmacological and non-pharmacological interventions within the individual's management plan			√	√
10.	The appropriateness of pharmacological and non-pharmacological interventions for the individual's health needs and the opportunities to eliminate unnecessary intervention, for example in childbirth			√	√
11.	The normal progression of a condition, common opportunistic infections, the range of recovery periods, side-effects, and an approximate timeline for resuming normal activities (if appropriate)		√	√	√
12.	Different stages of the specific health condition, including likely short-, medium- and long-term effects on the individual's physiological, psychological and mental states and function (if appropriate)	√	√	√	√
13.	Causal and risk factors of the diagnosis, including infection transmission		√	√	√
14.	The relevant anatomy, functions, physiology, pathology and structures of the relevant part of the body		√	√	√
15.	Etiology of the likely diagnosis of any co-morbidities, and their signs, symptoms and risk factors		√	√	√
16.	The range of promotive, preventive, curative, rehabilitative and palliative treatment and care options and pathways, eligibility criteria, their costs, resource requirements (personnel, assistive products, equipment), availability, accessibility, purpose, benefits, side-effects and risks			√	√
17.	Sources of further information and support for the individual, including community programmes		√	√	√
18.	Additional needs of vulnerable populations in accessing and engaging with health services, including in emergency situations	√	√	√	√

PRACTICE ACTIVITY 8, continued

DEVELOPING AND ADJUSTING A MANAGEMENT PLAN

19. The potential consequence of overdiagnosis and overtreatment			√	√
20. Different reasons for which deviation from an agreed treatment plan can occur, and methods to support individuals to follow a treatment plan	√	√	√	√
21. Indications of adverse reactions, deviations from a treatment plan, or changes in the individual's clinical condition or preferences	√	√	√	√
22. Management responses to adverse reactions, deviations from the agreed treatment plan or changes in the individual's clinical condition or preferences (range of actions within scope, and circumstances in which to recommend referral)		√	√	√

PRACTICE ACTIVITY 9
PRESCRIBING MEDICATIONS OR THERAPEUTICS

Tasks		1. Confirming information about the individual's health needs and the therapeutic objective 2. Performing a medicine utilization review 3. Assessing the risks and benefits to the individual of non-pharmacological and pharmacological treatment options 4. Providing information to the individual about a proposed medication plan 5. Agreeing on a medication plan with the individual 6. Calculating medical doses 7. Writing a prescription 8. Writing instructions for taking or administering prescribed medications 9. Taking action to ensure follow-up or monitoring as necessary
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	[Not applicable]
	Profile B (e.g. CHW)	• Protocol-based disbursement of a restricted range of medications or therapeutics in accordance with occupational regulations, under the responsibility of a senior health worker
	Profile C (e.g. nurse)	• Prescribing a restricted range of medications or therapeutics in accordance with occupational regulations, under the responsibility of a senior health worker
	Profile D (e.g. paramedical practitioner)	• Prescribing medications or therapeutics in accordance with occupational regulations, under the responsibility of a senior health worker

Curricular content	A	B	C	D
1. When, why and how to use non-pharmacological and pharmacological approaches to treat or modify disease and promote health			√	√
2. The signs, symptoms and causes of the condition to be treated, and its common natural progression		√	√	√
3. Access to and availability of non-pharmacological and pharmacological treatment options, for example medication clinics, essential medicines list			√	√
4. The individual's access to financial resources or ability to pay for non-pharmacological and pharmacological treatment options			√	√
5. Common cultural attitudes towards medications, traditional medicines and homeopathy		√	√	√
6. The pharmacodynamics, pharmacokinetics (bioavailability, therapeutic medicine monitoring and clearance), pharmacology and therapeutics relevant to prescribing practice (dose, dosing frequency, and how these may be altered when used in special populations, for example according to age, gender, hepatic impairment, renal impairment, size, lactation or pregnancy)			√	√
7. The relevance of information relating to the individual's history, travel, allergies and clinical status; their personal circumstances, attitudes, cultural beliefs and practices; their concerns, priorities and expectations; barriers to and acceptability of treatment options; and associated misconceptions, myths, stereotyping or stigma		√	√	√
8. The availability of pharmacological treatment options, including the national or institutional essential medicines list; methods of managing disruption; costs and restrictions of medications and generics; and availability of and access to medications in emergency situations			√	√
9. Methods by which to assess the severity, urgency and rate of deterioration of the presenting conditions, and anticipated response to management		√	√	√
10. The potential side-effects and contraindications of a planned prescribed medication, and steps to minimize and manage these		√	√	√
11. Common adverse interactions together with strategies to avoid these		√	√	√
12. The legal, ethical and professional frameworks related to controlled medicines, off-label prescribing of medicines and the prescribing of unlicensed medicines			√	√
13. Methods to determine the level of monitoring of clinical impact needed			√	√
14. Common prescribing, administration and dispensing errors, their risks and impacts, and methods to detect and address them		√	√	√
15. The principles of antimicrobial use, surveillance and stewardship		√	√	√
16. The development, causes and threats to health of antimicrobial resistance, and the impact of resistance on choice of antimicrobial therapy			√	√
17. Public health issues relating to medicine use, including antimicrobial resistance, substandard or falsified medicines, and inappropriate medicine use, such as overprescribing and underprescribing			√	√
18. The principles of patient safety and quality of care	√	√	√	√

PRACTICE ACTIVITY 10
PREPARING AND DISPENSING MEDICATIONS OR THERAPEUTICS

Tasks		1. Confirming a prescription order validation 2. Confirming the therapeutic appropriateness for the individual 3. Preparing the medications or therapeutics for dispensing 4. Educating the individual and family on self-administration and when to seek help 5. Supplying the medications or therapeutics
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Preparing and dispensing a limited number of medications or therapeutics under specified criteria
	Profile B (e.g. CHW)	• Dispensing a limited number of medications or therapeutics under specified criteria
	Profile C (e.g. nurse)	• Preparing and dispensing medications or therapeutics under specified criteria, including medications that need to be mixed prior to administration
	Profile D (e.g. paramedical practitioner)	• Checking medications or therapeutics prepared by others • Preparing and dispensing medications or therapeutics within scope of practice

Curricular content		A	B	C	D
1.	Common prescribing, administration and dispensing errors, their risks and impacts, and methods to detect and address them	√	√	√	√
2.	Information to be included on a prescription order	√	√	√	√
3.	The common signs and symptoms of the condition to be treated, and its common natural progression	√	√	√	√
4.	The availability of pharmacological treatment options, methods of managing disruption, and costs and restrictions of medications and generics			√	√
5.	Common cultural attitudes and misconceptions regarding medications, traditional medicines and homeopathy	√	√	√	√
6.	The pharmacodynamics, pharmacokinetics (bioavailability, therapeutic medicine monitoring and clearance), pharmacology and therapeutics relevant to prescribing practice (dose, dosing frequency, and how these may be altered when used in special populations, for example according to age, gender, hepatic impairment, renal impairment, size, lactation or pregnancy)			√	√
7.	The potential side-effects, contraindications and common adverse reactions of the medication or therapeutics, and steps to minimize and manage these	√	√	√	√
8.	The availability of pharmacological treatment options, including the national or institutional essential medicines list, methods of managing disruption, and costs and restrictions of medications and generics			√	√
9.	The legal, ethical and professional frameworks related to controlled medicines, mixing of medicines, off-label prescribing of medicines and the prescribing of unlicensed medicines			√	√
10.	The correct methods and schedules of medication or therapeutics administration	√	√	√	√
11.	The importance for the individual to follow the prescribed regimen, and not to share or stockpile medications or therapeutics	√	√	√	√
12.	Public health issues relating to medicine use, including antimicrobial resistance, substandard or falsified medicines, and inappropriate medicine use, such as overprescribing and underprescribing			√	√
13.	The information to be provided to the individual or person responsible for medication or therapeutics administration	√	√	√	√
14.	Methods of and role in medication or therapeutics stock control	√	√	√	√
15.	Methods of medication or therapeutics preparation and disposal	√	√	√	√
16.	Health and safety measures, including IPC and the use and disposal of PPE	√	√	√	√
17.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√	√	√	√
18.	The principles of patient safety and quality of care	√	√	√	√

PRACTICE ACTIVITY 11
ADMINISTERING MEDICATIONS OR THERAPEUTICS

Tasks		1. Evaluating instructions for administration 2. Confirming the therapeutic appropriateness for the individual 3. Preparing the medications or therapeutics for administration 4. Administering the medications or therapeutics 5. Monitoring response and managing adverse reactions
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Administering medications or therapeutics, usually according to strict criteria
	Profile B (e.g. CHW)	
	Profile C (e.g. nurse)	• Administering initial, loading and maintenance doses of medications (excluding anaesthesia) or therapeutics, including parenteral or other routes of administration, as per prescription • Managing administration of multiple medications or therapeutics
	Profile D (e.g. paramedical practitioner)	• Administering initial, loading and maintenance doses of medications or therapeutics, including intramuscular, intravenous or other routes of administration (may include local anaesthesia in specified circumstances) • Administering medications without prescription in emergency situations • Managing administration of multiple medications or therapeutics

Curricular content		A	B	C	D
1.	General therapeutic uses of the medication to be administered	√	√	√	√
2.	The instructions for dosage, route and timing of medication or therapeutics administration	√	√	√	√
3.	The methods of medication or therapeutics administration appropriate to the selected route	√	√	√	√
4.	The possible side-effects, indications of adverse reactions, and strategies to respond to and manage adverse reactions	√	√	√	√
5.	The main indications of the medication or therapeutics	√	√	√	√
6.	Methods to assess the severity, urgency, rate of deterioration and anticipated response to medicines	√	√	√	√
7.	The level of monitoring needed during and following administration of medications or therapeutics	√	√	√	√
8.	Common prescribing, dispensing and administration errors, and methods to detect and address them	√	√	√	√
9.	The legal, ethical and professional frameworks related to controlled medicines, therapeutics, mixing of medicines, off-label prescribing of medicines and the prescribing of unlicensed medicines			√	√
10.	The consequences for personal and public health of substandard or falsified medicines and the importance of obtaining medicines from a reliable supplier	√	√	√	√
11.	Health and safety measures, including IPC and the use and disposal of PPE	√	√	√	√
12.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√	√	√	√
13.	The principles of patient safety and quality of care	√	√	√	√

PRACTICE ACTIVITY 12
SELECTING ASSISTIVE PRODUCTS

Tasks		1. Carrying out screening to identify who may benefit from assistive products 2. Carrying out an assessment in order to select the assistive products and required features that best meet the needs of individuals 3. Referring to another service as needed 4. Agreeing an assistive product selection and provision plan with the individual 5. Ordering the product 6. Writing instructions for the fitting and use of the product 7. Taking action to ensure monitoring and follow-up
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Conducting screening for assistive product needs and assessment for a specified, limited range of simple assistive products (for example reading glasses, pill organizers or elbow crutches) • Using screening and assessment information to identify the need for and make referrals for assistive products or other services, and select the best assistive product and associated features (from available products within scope of practice) • Ordering selected assistive products from existing stock
	Profile B (e.g. CHW)	• Conducting screening for assistive product needs and assessment for a specified, limited range of simple assistive products (for example reading glasses, pill organizers or elbow crutches) using predefined protocols • Using screening and assessment information to identify the need for and make referrals for assistive products or other services, and select the best assistive product and associated features (from available products within scope of practice) • Ordering selected assistive products from existing stock
	Profile C (e.g. nurse) Profile D (e.g. paramedical practitioner)	• Conducting screening for assistive product needs and assessment for a specified, wider range of simple assistive products (for example therapeutic footwear, white canes, communication boards) using standard assessment procedures • Using screening and assessment information to identify the need for and make referrals for assistive products or other services, and select the best assistive product and associated features (from available products within scope of practice) • Ordering selected assistive products from existing stock

Curricular content		A	B	C	D
1.	How assistive products can support a person with cognition, communication, hearing, mobility or vision limitations	√	√	√	√
2.	The importance of individual assessment to select the most appropriate assistive product to meet their needs	√	√	√	√
3.	The range of assistive products available (within scope of practice), including their features and possible adaptations that can be made to suit individual needs	√	√	√	√
4.	Manufacturing recommendations, infection control requirements and protocols regarding product use, cleaning, storing and disposal	√	√	√	√
5.	The range of people who may benefit from the available assistive products and inclusion and exclusion criteria	√	√	√	√
6.	Common cultural and individual attitudes, perceptions and sensitivities that may be associated with impairment and the use of assistive products	√	√	√	√
7.	The impact of physical, health, environmental, cultural and lifestyle needs on the selection, specification and use of an assistive product	√	√	√	√
8.	The primary purpose of the specified assistive product in improving health, functioning, inclusion and participation, independence and overall well-being, and benefits in preventing secondary health conditions and compensating for functional decline	√	√	√	√
9.	Potential risks for individuals associated with poor product selection or incorrect use and strategies to mitigate risk, including education and monitoring	√	√	√	√
10.	Organizational standardized screening, assessment and referral guidelines, procedures and protocols	√	√	√	√
11.	Local referral networks and referral processes	√	√	√	√
12.	Any stigma or negative associations that the individual may experience	√	√	√	√
13.	The information and format to provide information in the product order	√	√	√	√

PRACTICE ACTIVITY 13

PROVIDING ASSISTIVE PRODUCTS

Tasks		1. Preparing, fitting and setting up the assistive product for the person, including adjusting features and making adaptations as required 2. Teaching the person how to use and look after their assistive product 3. Carrying out monitoring and follow-up activities 4. Carrying out basic maintenance and repairs
Illustrative occupational roles	Profile A (e.g. nursing associate professional) Profile B (e.g. CHW)	For a specified, limited range of simple assistive products (for example reading glasses, pill organizers or elbow crutches): • preparing and fitting the assistive product • teaching the person how to use and look after the assistive product • carrying out monitoring, follow-up, basic maintenance and repairs
	Profile C (e.g. nurse) Profile D (e.g. paramedical practitioner)	For a specified, wider range of simple assistive products (for example therapeutic footwear, white canes, communication boards): • preparing and fitting the assistive product • teaching the person how to use and look after the assistive product • carrying out monitoring, follow-up, basic maintenance and repairs

Curricular content	A	B	C	D
1. How to prepare, adjust or make safe adaptations to the assistive product	√	√	√	√
2. The prevalence of cognitive, functional, physical and visual impairments, and common causes (conditions, injuries, age related)	√	√	√	√
3. How home, work or other environments impact the set-up and use of assistive products and options for mitigating negative impacts	√	√	√	√
4. General and manufacturer-specific recommendations for the care, routine maintenance and repair of the assistive product	√	√	√	√
5. Key information that people using each assistive product need to know in order to maximize safe and effective use of that product	√	√	√	√
6. Potential risks and causes of abandonment associated with the use of the assistive product and how to monitor these risks	√	√	√	√
7. Recommended follow-up intervals for each assistive product, and how these may be affected by the individual's circumstances	√	√	√	√
8. Follow-up methods and information required to identify if a product is continuing to meet an individual's needs and is in good working order	√	√	√	√
9. Methods for care, routine maintenance and repair of the assistive product	√	√	√	√
10. Reuse of, recycling of or disposal options for assistive products returned after use	√	√	√	√
11. Health and safety measures, including IPC and the use and disposal of PPE	√	√	√	√
12. The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√	√	√	√
13. The principles of patient safety and quality of care	√	√	√	√

PRACTICE ACTIVITY 14

PROVIDING NON-PHARMACOLOGICAL HEALTH INTERVENTIONS

Tasks		1. Confirming information about the individual's health needs 2. Confirming therapeutic appropriateness for the individual 3. Planning for the health intervention 4. Supporting the individual to prepare for the health intervention 5. Providing the procedure or therapy or facilitating a normal physiological event such as childbirth 6. Monitoring response and managing adverse reactions
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Providing nursing care and personal care • Providing dependent interventions or tasks towards interventions under the direction of a senior health worker
	Profile B (e.g. CHW)	• Planning and providing routine independent, interdependent or dependent interventions of a restricted scope that do not require adaptation to the individual
	Profile C (e.g. nurse)	• Planning and providing nursing care and personal care • Planning and providing specified independent, interdependent or dependent interventions under the responsibility of a senior health worker
	Profile D (e.g. paramedical practitioner)	• Planning and providing a wider range of specified independent, interdependent or dependent interventions, sometimes under the responsibility of a senior health worker

Curricular content		A	B	C	D
1.	The goals of care for the individual and the basis for the intervention within the management plan	√	√	√	√
2.	The evidence base for the intervention in the context			√	√
3.	The resource requirements for the intervention, including support for any adverse events (environment, staffing, equipment)		√	√	√
4.	Methods for planning for the intervention, such as booking facilities, equipment or teams, and preparing the environment			√	√
5.	Factors that affect the choice of equipment or infrastructure, including availability and supply chain		√	√	√
6.	The purpose, types, functions, potential hazards and requirements for maintenance and disposal of devices and equipment used	√	√	√	√
7.	The relevant steps that the individual must take prior to the intervention	√	√	√	√
8.	The anatomy and physiology relevant to the intervention			√	√
9.	Methods and techniques for the intervention, including safety and quality checks of equipment and facilities	√	√	√	√
10.	Methods of adapting the intervention to the individual			√	√
11.	Level of monitoring during and following the intervention, indications of adverse events, and strategies to manage and respond to these	√	√	√	√
12.	Post-procedural or therapeutic care requirements	√	√	√	√
13.	Health and safety measures, including IPC and the use and disposal of PPE	√	√	√	√
14.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√	√	√	√
15.	The principles of patient safety and quality of care	√	√	√	√

PRACTICE ACTIVITY 15
PROVIDING TREATMENT AND CARE SUPPORT TO INDIVIDUALS

Tasks		1. Confirming information about the individual's health needs 2. Providing care or support, including: a. assistance with adapting to and coping with changes in health status and daily life challenges b. psychosocial and functional support c. personal and nursing care d. clinical care, such as cleaning wounds, changing a dressing, managing pain or discomfort e. education and counselling of individuals or their families 3. Monitoring an individual's response and adherence to treatment and care plans, taking action as necessary to manage the response or escalate for a review of management plan
Illustrative occupational roles	Profile A (e.g. nursing associate professional) Profile B (e.g. CHW) Profile C (e.g. nurse) Profile D (e.g. paramedical practitioner)	• Providing clinical support tasks, as identified in the management plan • Supporting the individual to have control of and be involved in their own treatment and care • Providing emotional and psychological support and guidance in following management plans and treatment adherence • Educating and training the individual and families in self-care

Curricular content		A	B	C	D
1.	The ethical and legal aspects of care, including goals of care, best-interest care decisions, advance directives (including to refuse treatment), surrogate decision-making	√	√	√	√
2.	The physiological signs, symptoms, progression and common responses related to the treatment plan, as relevant to the clinical diagnosis and management plan	√	√	√	√
3.	The range of recovery periods and side-effects, and approximate timeline for resuming normal, altered or reduced activities	√	√	√	√
4.	Symptoms or indications requiring urgent escalation of care, further advice or investigation	√	√	√	√
5.	The methods to provide the care and support tasks, as documented in the management plan	√	√	√	√
6.	Methods to evaluate the individual's additional needs and coping styles	√	√	√	√
7.	Methods to discuss treatment with the individual and engage and involve them in their care	√	√	√	√
8.	Approaches to determine the extent to which an individual wishes and has the capability to self-monitor and self-manage care	√	√	√	√
9.	The factors that might increase patients' dependence on services, and those that foster independence and self-management	√	√	√	√
10.	Indications of physical, psychological or sexual abuse, human trafficking or substance use, and appropriate actions and responses if suspected	√	√	√	√
11.	The range of reasons for non-adherence to a management plan	√	√	√	√
12.	Additional needs of vulnerable populations in accessing and engaging with health services, including during emergency situations		√	√	√
13.	Strategies to work with an individual to move towards adherence to a management plan	√	√	√	√
14.	The actions that the health worker can take to support an individual to feel empowered to make changes	√	√	√	√
15.	Sources of information, education materials or guidance		√	√	√
16.	The range of services to support and guide individuals across the care pathway, including through voluntary agencies, health promotion services and support groups, and how to access them (this may require recommendation for review of the management plan)		√	√	√
17.	Health and safety measures, including IPC and the use and disposal of PPE	√	√	√	√
18.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√	√	√	√
19.	The principles of patient safety and quality of care	√	√	√	√
20.	Methods and techniques to enable behaviour change, such as motivational interviewing, cognitive behavioural methods, behavioural reinforcement techniques, peer support, adult learning methods, solution-focused therapy and goal setting			√	√

PRACTICE ACTIVITY 16
MANAGING END-OF-LIFE AND BEREAVEMENT CARE

Tasks		1. Confirming information about individual health needs 2. Providing care and support to the individual and their family in anticipation of, during, and following death, which may include: a. assistance in adapting to and coping with changes in health status and daily life challenges b. psychosocial and functional support c. personal and nursing care d. clinical care, such as managing pain or discomfort and withdrawal of active treatment, including prescribing, dispensing and administration of medications or therapeutics (practice activities 9–11) e. handling and moving a deceased body, including burial preparations 3. Monitoring an individual's response to treatment and care plans 4. Ensuring that the required steps are followed following death to certify death (practice activity 27)
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Providing care and support within a management plan • Preparing a deceased body for transfer to morgue • Providing practical tasks following death
	Profile B (e.g. CHW)	[Not applicable]
	Profile C (e.g. nurse)	• Providing support to an individual and their family as part of the end-of-life care pathway, under the responsibility of a senior health worker • Informing families of death, including when sudden, unexplained, violent or unnatural, under the responsibility of a senior health worker • Notifying the necessary organizations following death
	Profile D (e.g. paramedical practitioner)	• Providing support to an individual and their family as part of the end-of-life care pathway, under the responsibility of a senior health worker • Informing families of death, including when sudden, unexplained, violent or unnatural • Notifying the necessary organizations following death

Curricular content		A	B	C	D
1.	The ethical and legal aspects of care, including goals of care, best-interest care decisions, advance directives (including to refuse treatment), surrogate decision-making			√	√
2.	Measures to provide comfort and pain relief to the individual	√		√	√
3.	The role of palliative care in the continuum of care	√		√	√
4.	The provision of palliative care relative to the care setting	√		√	√
5.	The physical and emotional steps involved in transitioning from life-extending to end-of-life management plans	√		√	√
6.	The factors that could affect an individual's view of dying, including their physical, emotional, psychological, spiritual, cultural and religious needs			√	√
7.	The psychological effects of a terminal prognosis and the last days of life, and internal and external coping strategies to manage fear			√	√
8.	Appropriate strategies to respond to and support the emotional, spiritual and physical needs of individuals and their families, particularly in distressing situations	√		√	√
9.	Particular vulnerabilities or sensitivities, for example with regard to children and feelings of guilt, shame or stigma associated with the condition, for those with a partner with the same condition or prognosis and for those without family support			√	√
10.	Indications of near death and death	√		√	√
11.	Physiological processes and common disorders, conditions and symptoms associated with end of life and when death is approaching, including changes in diet, appetite, decline in function and decreased quality of life			√	√
12.	The range of therapeutic options available, including practical support or psychological therapy			√	√
13.	The implications of a "do not attempt resuscitation" or "do not intubate" order	√		√	√
14.	The importance of relationships as an individual approaches the end of life	√		√	√
15.	The importance of refocusing attention to the family after death	√		√	√
16.	The process, types and different expressions of loss, including bereavement, grief and mourning; the factors that could affect the different intensities and duration of grief; and when to refer			√	√
17.	Practical arrangements the family will need to make following death			√	√
18.	The resources, information and support available, how they might be accessed, and risks and benefits			√	√
19.	Health and safety measures, including IPC and the use and disposal of PPE	√		√	√
20.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√		√	√

PRACTICE ACTIVITY 16, continued

MANAGING END-OF-LIFE AND BEREAVEMENT CARE

21. The principles of patient safety and quality of care	√	√	√	√
22. Measures for handling a deceased body, including clinical procedures in cases of infectious diseases	√		√	√
23. Physiological processes following death	√		√	√
24. Local and national procedures, protocols and legal requirements			√	√

PRACTICE ACTIVITY 17

REPORTING NOTIFIABLE DISEASES, CONDITIONS OR EVENTS

Tasks		1. Confirming information about the disease, condition or event in relation to criteria for reporting 2. Submitting report 3. Taking action to ensure that the disease, condition or event is taken into account in individual management plans and facility responses
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Collecting information to support reporting and surveillance
	Profile B (e.g. CHW)	• Collecting information to support reporting and surveillance • Reporting mandatory or voluntary notifiable diseases or events
	Profile C (e.g. nurse)	
	Profile D (e.g. paramedical practitioner)	

Curricular content		A	B	C	D
1.	The role of mandatory reporting in infectious disease surveillance, legal certification of births and deaths and cause of death, and quality management	√	√	√	√
2.	The use of decision-making aids and pattern recognition	√	√	√	√
3.	The people and actors to be notified of the information, including the individual		√	√	√
4.	The criteria for mandatory and voluntary reporting of diseases, conditions and events		√	√	√
5.	The circumstances in which an individual is notified, or not notified, of a report made about them			√	√
6.	The information to be included in the report		√	√	√
7.	International Statistical Classification of Diseases and Related Health Problems, tenth revision, and other relevant classification or notification systems		√	√	√
8.	The risk factors, route of transmission and clinical features of the notifiable disease		√	√	√
9.	The implications for an individual's management plan or facility responses		√	√	√

PRACTICE ACTIVITY 18
PROVIDING OR RECEIVING A CLINICAL PRESENTATION

Tasks		1. Planning for the presentation (including handovers, referrals, team care planning and ward rounds) 2. Providing information about individuals 3. Ensuring all people involved have a common understanding 4. Transferring responsibility for care
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Providing a clinical presentation about individuals within responsibility of care • Receiving information about individuals when assuming responsibility of care
	Profile B (e.g. CHW)	
	Profile C (e.g. nurse)	
	Profile D (e.g. paramedical practitioner)	

Curricular content		A	B	C	D
1.	Features of and barriers to effective communication during handover	√	√	√	√
2.	The role of effective handover in quality care and patient safety	√	√	√	√
3.	The purpose of the presentation, including handover and referrals	√	√	√	√
4.	The role that others will be taking in the management of care	√	√	√	√
5.	The factors to plan for an effective presentation, including the relevant health team, the environment and cover for clinical duties	√	√	√	√
6.	The essential content of the clinical presentation (including the timing, patterns and findings of subjective and objective information about individuals, the management plan, immediate next steps)	√	√	√	√

PRACTICE ACTIVITY 19

MOVING AND TRANSPORTING INDIVIDUALS

Tasks		1. Assessing and planning the moving, handling and transport needs of individuals 2. Seeking information about an individual's needs and preferences 3. Preparing the individual and necessary equipment 4. Using locally available aids for moving, handling and transporting an individual 5. Monitoring the individual's responses 6. Returning equipment and environment for subsequent use
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Moving or transporting an individual using lifting techniques or non-mechanical aids, such as a hoist, transfer board or wheelchair
	Profile B (e.g. CHW)	[Not applicable]
	Profile C (e.g. nurse)	• Moving or transporting an individual using lifting techniques and mechanical or non-mechanical aids, such as hoists • Moving or transporting an individual with complex needs, for example spinal injury or breathing support
	Profile D (e.g. paramedical practitioner)	• Leading a team to move or transport an individual with complex needs, for example spinal injury or breathing support

Curricular content		A	B	C	D
1.	The principles and techniques of safe moving, handling and transporting	√		√	√
2.	Techniques for conducting an environmental or personal risk assessment	√		√	√
3.	Methods to ensure safe environments, for example removing obstacles or avoiding wet floors, and securing oxygen supplies for the transit	√		√	√
4.	The availability of mechanical and non-mechanical aids and equipment	√		√	√
5.	The methods of applying immobilizing methods if suspected injury to spine or head	√		√	√
6.	The importance of correct movement and positioning for the health and safety of both the individual to be moved and those undertaking the task	√		√	√
7.	Methods to use equipment, such as transfer boards, stretcher, belts, hoists, slings, bathing aids or trolleys	√		√	√
8.	Strategies and tools to give the individual the ability to ask for help, for example a bell	√		√	√
9.	Vital signs and other indicators of adverse responses or a deterioration of health condition during the movement	√		√	√
10.	Health and safety measures, including IPC and the use and disposal of PPE	√		√	√
11.	The chain of infection, the role of hygiene and sanitation, and prevention of health care-associated infections	√		√	√
12.	Appropriate strategies to respond to and support the emotional, spiritual and physical needs of individuals and their families, particularly in distressing and emergency situations	√		√	√

PRACTICE ACTIVITY 20

COORDINATING TRANSFER TO ANOTHER CARE ENVIRONMENT

Tasks		1. Confirming basis for transfer 2. Evaluating options for transfer 3. Developing a transfer plan 4. Confirming agreement of the transfer plan, and actions and responsibilities of the relevant parties involved in the transfer 5. Making practical arrangements for the transfer 6. Coordinating care transfer plan
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Taking action to facilitate transfer, within an existing plan
	Profile B (e.g. CHW)	• Developing and coordinating transfer plan from the community • Taking action to facilitate transfer to and from the community, within an existing plan
	Profile C (e.g. nurse)	• Taking action to facilitate transfer, within an existing plan • Proactively addressing potential impediments to continuity of care
	Profile D (e.g. paramedical practitioner)	• Evaluating need for and deciding on transfer • Developing and coordinating transfer plan between different environments • Taking an active role in enabling the transfer and proactively addressing potential impediments to continuity of care

Curricular content		A	B	C	D
1.	The role of a transfer plan in ensuring continuity of care before, during and after transfer	√	√	√	√
2.	The range of available services and possible destinations of care (including community services, hospitals, informal support networks, general practice, social services, voluntary sector, frail care, long-term care facilities, nursing homes, home) and their roles, structures and functions within the health system	√	√	√	√
3.	The eligibility criteria for, financial considerations for, access to and availability of destinations of care		√	√	√
4.	The impact of the individual's cognitive status, activity level, home support, ability to obtain medications and access to care and support services on the preferred destination of care		√	√	√
5.	Criteria and options for evaluating and prioritizing referrals and transfers of care		√	√	√
6.	The rights of care providers to refuse referrals, the reasons why this might happen, and strategies to manage the situation		√	√	√
7.	Methods and strategies for dealing with inappropriate referrals			√	√
8.	Logistical requirements for the transfer and for the receiving care environment, for example transportation, health workers, medications, mobility aids or adaptations	√	√	√	√
9.	The importance of individual reassessment during movement of an individual to ensure that their condition has not deteriorated	√	√	√	√
10.	The range of relevant stakeholders in the transfer, including all care providers involved in the individual's management plan, the individual and their support network	√	√	√	√
11.	The importance of effective communication during care transfer to ensure patient safety and reduce duplication of care, testing or treatment	√	√	√	√
12.	Information to be included in a transfer plan	√	√	√	√
13.	The sequence of tasks to be completed within a transfer plan	√	√	√	√
14.	Risks to patient safety and quality of care that may arise during transfer periods, and strategies to mitigate these	√	√	√	√
15.	Feelings of vulnerability when transferring between care environments	√	√	√	√
16.	When and how to close relationships with individuals and their support network	√	√	√	√

PRACTICE ACTIVITY 21

ASSESSING COMMUNITY HEALTH NEEDS

Tasks		1. Planning for an assessment, including obtaining necessary approvals 2. Coordinating an oversight group 3. Managing community engagement and participation activities 4. Gathering and recording data and information 5. Analysing and interpreting data and information 6. Validating the findings of the assessment 7. Proposing options to address the findings 8. Reporting the findings
Provided in parallel		9. Managing human resources (practice activity 31) 10. Managing financial resources (practice activity 32)
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Supporting community engagement activities and data collection, for example administering door-to-door surveys or facilitating focus group discussions • Recording data in predefined, limited option formats • Providing feedback and insights based on own experience
	Profile B (e.g. CHW)	• Supporting community engagement activities and data collection, for example consulting community leaders or facilitating focus groups • Collecting and organizing information about community assets, and the political, economic and cultural context • Evaluating data and information to identify individual, organizational and community concerns, assets, resources and deficits • Reporting back to the community
	Profile C (e.g. nurse)	• Managing community engagement activities, including facilitating public forums • Developing templates for data collection • Managing specific components of the assessment • Representing a stakeholder perspective on an oversight group • Evaluating the data and information and proposing hypotheses or insights that link health needs with enabling factors and barriers, and proposing possible solutions • Writing sections of a report relating to the findings • Communicating the findings to decision-makers and to the community
	Profile D (e.g. paramedical practitioner)	• Leading the planning and coordination of the assessment • Managing the process of validation to secure community support for the findings • Evaluating the data and information to propose options for meeting the health needs within existing resources, and with additional resources • Writing a report of the findings, incorporating sections drafted by others • Communicating the findings to decision-makers and to the community

Curricular content		A	B	C	D
1.	Principles of public health encompassing a population focus, community orientation, ethics, prevention, equity, inclusion, accountability and social justice		√	√	√
2.	The role of health needs assessment in public health decision-making		√	√	√
3.	Community awareness, including the parameters of the community (definition), the language, culture, religion, community resources, employment, housing and health facility availability	√	√	√	√
4.	The interrelationships among systems that influence the quality of life of people in their communities				√
5.	Community health awareness, including risks of potential emergencies, any recent events, outbreaks or disasters, and local epidemiology	√	√	√	√
6.	The main components of the organization, financing and delivery of health services, and the structures and functions of different health and social care facilities, units and health workers within the health system		√	√	√
7.	The differences between availability, acceptability and accessibility of health services and how these might vary across different populations or settings		√	√	√
8.	The role of social, political, economic and environmental determinants of health in both the onset of problems and the creation of solutions		√	√	√
9.	The impact of global trends and interdependencies			√	√
10.	The principles of participatory approaches in community health	√	√	√	√
11.	Principles of programme management (goal setting, risk assessment, design, development, implementation, evaluation and governance)			√	√
12.	The role of biostatistics, informatics, epidemiological data and community contexts in public health decision-making			√	√
13.	The range of participatory, quantitative and qualitative research methods appropriate to the assessment			√	√

PRACTICE ACTIVITY 21, continued

ASSESSING COMMUNITY HEALTH NEEDS

14. The methods and tools for data collection and analysis using the selected approaches	√	√	√	√
15. Collaborative and consultative tools and methods to generate, categorize and prioritize change ideas			√	√
16. Methodologies to assess, prevent and control hazards or risks to safety during the course of data collection	√	√	√	√
17. Basic concepts of probability, random variation and common statistical distributions			√	√
18. Common statistical methods used to infer trends and for comparative purposes			√	√
19. Different measurement scales and the implications for selection of statistical methodologies				√
20. The use of information technology and basic informatics techniques			√	√
21. Descriptive methodologies		√	√	√
22. Methods to evaluate the strength and limitations of data			√	√
23. Frameworks and methods to identify the unintended consequences of changes made within public health systems			√	√
24. Risks and requirements relating to data accuracy, confidentiality and security	√	√	√	√

PRACTICE ACTIVITY 22

PLANNING AND DELIVERING COMMUNITY HEALTH PROGRAMMES

Tasks		1. Planning for a local health programme 2. Mobilization of stakeholders for engagement in the programme planning and delivery 3. Providing actions contributing to the implementation of a community health programme (including all practice activities within the individual health domain) 4. Mobilization of community resources to support the health programme 5. Overseeing the implementation of the programme 6. Monitoring and evaluating the health programme 7. Fostering community ownership
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Participating in the programme (incorporating tasks from the individual health domain)
	Profile B (e.g. CHW)	• Participating in the programme (incorporating tasks from the individual health domain) • Leading specific aspects of programme delivery
	Profile C (e.g. nurse)	• Planning and participating in health education programmes in community settings • Managing community involvement, for example facilitating consultation events • Mobilizing community resources to support delivery of health programme • Engaging with key partners and stakeholders • Leading the overall implementation of a community health programme in some circumstances
	Profile D (e.g. paramedical practitioner)	

Curricular content		A	B	C	D
1.	Principles of public health encompassing a population focus, community orientation, ethics, prevention, equity, inclusion, accountability and social justice	√	√	√	√
2.	Community awareness, including the parameters of the community (definition), the language, culture, religion, community resources, employment, housing and health facility availability	√	√	√	√
3.	The interrelationships among systems that influence the quality of life of people in their communities				√
4.	Additional needs of vulnerable populations in accessing and engaging with health services	√	√	√	√
5.	The role of the programme in improving community health	√	√	√	√
6.	The programme drivers for change (social, political, economic, scientific)	√	√	√	√
7.	Setting-based approaches to community health, including linked to management of risks of emergencies	√	√	√	√
8.	The role of the programme within the health system, including wider national or local improvement programmes			√	√
9.	The organizational structures and systems, and decision-making, administrative and reporting processes			√	√
10.	Methods to identify, involve and empower stakeholder groups and potential partners in programme planning, implementation and monitoring		√	√	√
11.	Methods to identify the risks, needs, impacts, barriers and solutions relevant to the change ideas for the health programme			√	√
12.	Methods of incorporating stakeholder feedback, and co-development and co-ownership of the programme as far as is practicable		√	√	√
13.	The social and environmental determinants of health in the community		√	√	√
14.	Principles of change management			√	√
15.	Barriers to the success or uptake of the programme		√	√	√
16.	The role of different stakeholders (decision-makers, community organizations, private sector, families) in improving the health of a community		√	√	√
17.	Methods to facilitate partnership working, such as shared goals and addressing barriers		√	√	√
18.	Methods to facilitate behavioural or cultural change		√	√	√
19.	The role of monitoring and evaluation in continuous improvement		√	√	√
20.	Methods for monitoring and evaluating change			√	√
21.	Programme management tools and techniques, and the importance of managing programme schedules, resources, budgets and scope			√	√
22.	Local and national procedures, protocols and legal requirements			√	√

PRACTICE ACTIVITY 23

MANAGING PUBLIC HEALTH COMMUNICATION

Tasks		1. Assessing communication goals and priorities 2. Selecting communication methods 3. Developing communication content 4. Creating communication materials 5. Engaging others as participants in communication 6. Evaluating communication activities
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Communicating agreed evidence-based public health information to individuals or small groups • Assessing and correcting myths or falsified information in conversation with individuals or small groups • Contributing feedback into communication goal setting and evaluation
	Profile B (e.g. CHW)	• Managing linear communication using readily available tools, for example door to door, loudspeaker, community gathering, radio, social or text messaging, youth groups • Proactively identifying communication needs
	Profile C (e.g. nurse)	• Creating physical or social media communication materials • Managing non-linear public communication, for example at public forums or using social media
	Profile D (e.g. paramedical practitioner)	• Prioritizing community communication needs and goals • Creating linear public communication using technical tools, for example creating videos • Evaluating the impact and timing of community communication activities • Leading non-linear communication in public forums, such as a town hall

Curricular content		A	B	C	D
1.	The purposes of communication (dissemination of evidence-based information, confirming opening hours or contact information, debunking myths, information gathering) and intended outcomes	√	√	√	√
2.	Methods to fact-check and verify the content to be communicated (linear)			√	√
3.	The role of data and informatics in promoting public health issues	√	√	√	√
4.	Methods to translate complex information into digestible and appropriate communication methods			√	√
5.	Principles of public communication in different contexts, for example operational information, in an emergency situation, risk communication		√	√	√
6.	The literacy of the audience, including health literacy, social media literacy, and ability to obtain, interpret and use health and other information	√	√	√	√
7.	The ethical and cultural context, and culturally appropriate practice, language or graphics	√	√	√	√
8.	The influences of social, organizational and individual factors on the use of information technology and access to different communication channels			√	√
9.	The relevant channels and tools for the communication purpose, including digital technologies, posters, open forum meetings	√	√	√	√
10.	Practical methods to use the range of communication channels and tools	√	√	√	√
11.	The target audience for the communication	√	√	√	√
12.	Principles of planning, tailoring and managing linear and non-linear communication with the participation of target audiences and communities		√	√	√
13.	Theoretical and strategy-based principles of communication across different settings and audiences			√	√
14.	The impact of communication on comprehension, creating or dispelling myths, satisfaction and hope	√	√	√	√
15.	The role of public health infrastructure in collecting, processing, maintaining and disseminating information			√	√
16.	Methods of evaluating communication activities, including community feedback mechanisms			√	√

PRACTICE ACTIVITY 24

DEVELOPING PREPAREDNESS FOR HEALTH EMERGENCIES AND DISASTERS, INCLUDING DISEASE OUTBREAKS

Tasks		1. Conducting all-hazards emergency risk assessments 2. Conducting activities that reduce vulnerabilities and help to prevent or mitigate emergencies 3. Participating in preparedness activities, for example communicating with communities and other stakeholders 4. Delivering, coordinating and leading preparedness activities 5. Preparing resources or equipment and health products for a response 6. Monitoring and interpreting health data 7. Evaluating preparedness 8. Contributing information for and insights into the development or review of preparedness, and providing recommendations for improvement
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Participating in all-hazards risk assessments in a community • Participating in preparedness activities, including learning about own role in a response • Maintaining a personal, family and professional preparedness plan • Contributing information to the review and evaluation of preparedness based on personal experience
	Profile B (e.g. CHW)	• Participating in all-hazards risk assessments in a community • Engaging the community in risk prevention and preparedness activities, such as education and health promotion • Contributing information to the review and evaluation of preparedness based on feedback from others
	Profile C (e.g. nurse)	• Conducting all-hazards emergency risk assessments at facility level • Determining the need for facility-level preparedness activities • Organizing and delivering preparedness activities for teams or units, such as risk assessment, learning, planning and tabletop exercises • Preparing resources or equipment and health products for a response • Evaluating team preparedness • Identifying lessons from past events to improve risk prevention and preparedness for future emergencies
	Profile D (e.g. paramedical practitioner)	• Conducting all-hazards emergency risk assessments at facility or community level • Determining the need for facility- or community-level preparedness activities • Organizing and delivering facility- or community-level preparedness activities, including tabletop drills or field exercises • Evaluating facility- or community-level preparedness • Identifying recommendations from reviews to improve risk prevention and preparedness for future emergencies

Curricular content		A	B	C	D
1.	The all-hazards risk assessment process to enable communities to identify, analyse and determine current and emerging priority risks	√	√	√	√
2.	The contents of local health, multisectoral and multi-hazard response plans for health emergencies (including disease outbreaks and events triggered by natural, technological or societal hazards) and mass casualty events, and how they relate to own role and workplace	√	√	√	√
3.	The risk management approach to emergencies to reduce hazards, exposures and vulnerabilities and build capacities for emergency prevention, mitigation, preparedness, response and recovery (that is, phases of the emergency management continuum)	√	√	√	√
4.	Sources of information on risks and warnings, and mechanisms of internal and public communication with stakeholders for prevention, preparedness, response and recovery	√	√	√	√
5.	Strategies in day-to-day care and services that help to reduce vulnerabilities and prevent events from occurring and scaling up into emergencies, for example management of common illnesses such as diarrhoea, common cold and malnutrition; key family practices, for example exclusive breastfeeding, hygiene, childhood immunizations and reproductive health; prevention and management of communicable and noncommunicable diseases; and trauma care	√	√	√	√
6.	Methods for all-hazards risk monitoring, detection, prevention, mitigation, preparedness and response to manage risks of emergencies and disasters	√	√	√	√
7.	Elements of effective, inclusive and community-centred prevention, mitigation, preparedness, and response to emergencies and disasters	√	√	√	√
8.	Key steps for developing plans for emergency preparedness and response for the community, organization or facility	√	√	√	√
9.	Critical event self and scene safety, IPC, and the use and disposal of PPE	√	√	√	√
10.	The range of strategies and actions to respond to or mitigate the effects of the events			√	√
11.	The personnel, financial, equipment, logistics and protocol requirements for different response strategies			√	√
12.	Health data for prevention, preparedness, response and recovery, data sources and methods to interpret data			√	√
13.	Availability of resources and planning and access to surge resources during emergencies			√	√

PRACTICE ACTIVITY 24, continued

DEVELOPING PREPAREDNESS FOR HEALTH EMERGENCIES AND DISASTERS, INCLUDING DISEASE OUTBREAKS

14. Community awareness, including language, culture, faith and socioeconomic dimensions and catchment; provider organizations, networks and support groups for health services, employment, housing, food, water, sanitation, and hygiene; other nongovernmental organizations; and the interdependencies and relationships among systems that may be impacted		√	√	√
15. The projected impacts of emergencies on communities, displaced populations, health system functioning, shelter, food, water, different stakeholder groups, and specific populations with higher levels of vulnerability		√	√	√
16. Methods to identify specific populations in the community who face higher risks of emergencies due to their increased vulnerability (for example, income levels and poverty, gender, age, people with disabilities, people with underlying health conditions, migrants, displaced persons)			√	√
17. Methods for community education, awareness raising and community participation in emergency prevention, preparedness and response		√	√	√
18. Indicators for measuring risks, risk management capacities, inputs, outputs and outcomes related to risk prevention, and preparedness for and response to disease outbreaks and other emergencies and disasters		√	√	√
19. Mechanisms to contribute to disease surveillance systems and to alert authorities and communities if an outbreak or emergency situation is suspected or anticipated	√	√	√	√
20. The range and scale of incidents that can be managed locally, those where external resources or alerts are needed, and the procedures for requesting and receiving assistance			√	√
21. The tasks that may be part of the role of the health worker during a response, for example disaster and emergency triage, IPC, decontamination, contact tracing, isolation, mass casualty management, injury management, management of large numbers of deceased, psychosocial support and environmental health	√	√	√	√
22. Protocols that apply in the response and how they differ from normal practice, for example mass casualty triage, repurposing of facility spaces and case management	√	√	√	√
23. The effect of health emergencies and disasters on the health and well-being of individuals, communities and health workers, and the range of support tools and services available	√	√	√	√
24. The health services to be maintained alongside the emergency response (with reference to essential health services and interdependencies with other sectors and service providers, for example water, power, transport and supplies), including repurposing and reprioritization	√	√	√	√
25. Methods of monitoring, evaluating, testing and improving levels of preparedness and plans, including drills, tabletop exercises, field exercises and other simulations		√	√	√
26. The role of training to strengthen competencies within the context of prevention, preparedness, response and recovery	√	√	√	√
27. Own roles and responsibilities and those of other health actors and sectors in relation to different prevention, preparedness, response and recovery strategies	√	√	√	√
28. Principles of collaborative practice within prevention, preparedness, response and recovery, including task sharing, coordination within the health sector and between sectors at local level, and teamwork	√	√	√	√
29. Legal requirements during a response, local regulations and subnational and national legislation, the International Health Regulations Monitoring Framework and international human rights			√	√
30. The terminology and abbreviations relating to emergencies and disasters, including disease outbreaks	√	√	√	√

PRACTICE ACTIVITY 25

RESPONDING TO HEALTH EMERGENCIES AND DISASTERS, INCLUDING DISEASE OUTBREAKS

Tasks		1. Monitoring for and interpreting indications of outbreaks, emergencies or disasters 2. Alerting relevant emergency, disaster and disease outbreak management stakeholders in the health sector and other sectors 3. Communicating with communities, the health workforce and stakeholders 4. Leading and coordinating a local response, including assessments of needs and impacts 5. Reviewing and adapting the local response approach in light of the evolving situation, and emerging national or external policy decisions and action plans 6. Preparing and organizing resources and supplies 7. Setting up and managing physical spaces for the response 8. Performing emergency first aid (practice activities from the individual health domain) and basic life support 9. Providing health services for emergency response, for example contact tracing, triage and mass casualty management 10. Monitoring, evaluating and reporting on the response 11. Taking action to correct the course of response 12. Running post-response evaluation and reflection exercises 13. Developing recovery plans
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Monitoring for indications and alerts of potential disease outbreaks or emergencies • Performing allocated emergency response-related tasks and duties as part of the response effort, for example preliminary triage (walking, non-walking) • Contributing to reporting on health impacts and needs, resources and progress of the response
	Profile B (e.g. CHW)	• Performing emergency response-related tasks and duties as part of the response effort, for example engaging with individuals, caregivers, families or communities to extend resources, setting up physical spaces, and transferring existing patients to other environments • Contributing to population disease surveillance • Providing reports on health impacts and needs, resources and progress of the response
	Profile C (e.g. nurse)	• Coordinating a health unit response within a broader response strategy • Running debriefing and reflection exercises on the response • Setting up additional physical spaces and creating new spaces for health care • Providing reports on health impact and needs, resources and progress of the response
	Profile D (e.g. paramedical practitioner)	• Leading the facility- or community-level emergency response • Performing clinical triage and assigning priorities to individual cases • Providing reports on health impact and needs, resources and progress of the response

Curricular content		A	B	C	D
1.	The local health, multisectoral and multi-hazard response plans for health emergencies (including disease outbreaks and events triggered by natural, technological or societal hazards) and mass casualty events, and how they relate to own role and workplace	√	√	√	√
2.	Information within the response plan, for example rapid needs assessment, evacuation, health care services, other essential services, external assistance (for example humanitarian), access to resources, logistics management, security, timelines, recovery and rehabilitation	√	√	√	√
3.	Risks, impacts and indicators of outbreaks and emergency and disaster situations	√	√	√	√
4.	Mechanisms to contribute to disease surveillance systems and to alert authorities and communities if an outbreak, emergency or disaster situation is suspected or anticipated	√	√	√	√
5.	The range and scale of incidents that can be managed locally and those where external resources or alerts are needed, and the procedures for requesting and receiving assistance			√	√
6.	The range of strategies and actions to respond to or mitigate the effects of the events and deployment protocol			√	√
7.	Mapping of resources, including the local, national and international organizations and personnel in the local area (stakeholder analysis)			√	√
8.	The health services to be maintained alongside the emergency response (with reference to essential health services and interdependencies with other sectors and service providers, for example water, power, transport and supplies), including repurposing and reprioritization	√	√	√	√
9.	Methods for community engagement and risk communication in emergency response and recovery	√	√	√	√
10.	External sources of information about local and subnational response plans and external guidance (including that originating from government and WHO) that informs the local response			√	√
11.	Internal and external sources of information, communication and coordination mechanisms for receiving and providing inputs on updates to the response (for example situation reports)	√	√	√	√
12.	Legal requirements during a response, local regulations and subnational and national legislation, the International Health Regulations Monitoring Framework and international human rights			√	√

PRACTICE ACTIVITY 25, continued

RESPONDING TO HEALTH EMERGENCIES AND DISASTERS, INCLUDING DISEASE OUTBREAKS

13.	Access to surge human, financial and material resources during emergencies		√		√
14.	Own roles and responsibilities and those of other health actors and sectors in relation to different prevention, preparedness, response and recovery strategies	√	√	√	√
15.	Principles of collaborative practice within prevention, preparedness, response and recovery, including task sharing, coordination within the health sector and between sectors at the local level, and teamwork	√	√	√	√
16.	Knowledge and skills for own responsibilities as part of the response, including clinical roles	√	√	√	√
17.	Principles and practices of first aid, disaster and emergency triage, IPC, decontamination, hygiene and sanitation, prevention of health care-associated infections, contact tracing, isolation, critical event self and scene safety, mass casualty management, injury management, basic life support, management of large numbers of deceased, psychosocial support and environmental health	√	√	√	√
18.	Protocols that apply in the response and how they differ from normal practice, for example mass casualty triage, repurposing of facility spaces and case management	√	√	√	√
19.	The effect of health emergencies and disasters on the health and well-being of individuals, communities, and health workers, and the range of support tools and services available	√	√	√	√
20.	Ethical considerations involved in decision-making during an emergency response	√	√	√	√
21.	Essential elements of the response, including clinical and non-clinical actions to be performed	√	√	√	√
22.	The personnel, equipment, supplies and logistics management needed for the essential elements of the response			√	√
23.	Factors involved in organizing physical spaces for health care and management functions, including crowd control, signage, transfer of existing patients, electricity and medical supplies	√	√	√	√
24.	The options to mitigate or manage the impacts of emergencies on health system functioning, shelter, food, water, different stakeholder groups and specific vulnerable populations		√	√	√
25.	Strategies for local health and health intersectoral coordination and collaboration			√	√
26.	The principles of transparency, collaboration and governance in sectoral and intersectoral responses to outbreaks, emergencies and disasters			√	√
27.	Mechanisms for regular reporting on emergency situations, health impacts, evolving needs, resources, response actions, progress and corrective actions	√	√	√	√
28.	Procedures and approaches for conducting post-response reflection and review exercises, and capturing lessons and recommendations for improving prevention, preparedness, response and recovery			√	√
29.	Methods for developing recovery plans, including rehabilitation services and recovery, applying the "build back better" principle		√	√	√
30.	The terminology and abbreviations relating to emergencies and disasters, including disease outbreaks	√	√	√	√

PRACTICE ACTIVITY 26

ADVOCACY FOR COMMUNITY HEALTH NEEDS

Tasks		1. Identifying opportunities to improve community health through advocacy 2. Developing the advocacy strategy 3. Confirming the goals of advocacy 4. Identifying key stakeholders, including community and interest groups, traditional leaders and decision-makers 5. Planning the advocacy activities 6. Mobilizing the community to sustain action and impact 7. Implementing the advocacy activities 8. Monitoring and evaluating advocacy activities and impact
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Identifying opportunities for advocacy activities • Representing community views, for example through writing
	Profile B (e.g. CHW)	• Representing community views through writing or personal engagement
	Profile C (e.g. nurse)	• Coordinating a health unit response within a broader response strategy • Running debriefing and reflection exercises on the response • Setting up additional physical spaces and creating new spaces for health care • Providing reports on health impact and needs, resources and progress of the response
	Profile D (e.g. paramedical practitioner)	• Developing the advocacy strategy • Representing community views on a decision-making group • Implementing the advocacy strategy • Monitoring and evaluation

Curricular content		A	B	C	D
1.	The context related to health needs and the range of possible solutions	√	√	√	√
2.	Local, regional and national policy-making processes		√	√	√
3.	The values or agendas of the target audience for the advocacy activities		√	√	√
4.	The roles and responsibilities of different stakeholders in the issue, including governmental and nongovernmental organizations, schools, health centres, community members and health workers, in providing programmes and improving population health		√	√	√
5.	Advocacy tools, techniques and strategies	√	√	√	√
6.	Mechanisms to support others to articulate their needs		√	√	√
7.	Methods of stakeholder analysis			√	√
8.	Techniques for community engagement and collaboration		√	√	√
9.	Decision-makers, their priorities and values, their governance, authority and resources, and the timing of any intervention points		√	√	√
10.	Availability of resources		√	√	√
11.	Methods of monitoring and evaluation		√	√	√

PRACTICE ACTIVITY 27
ACCESSING AND DOCUMENTING INFORMATION

Tasks		1. Accessing, synthesizing and interpreting information 2. Documenting information 3. Validating the quality of information 4. Issuing legal documentation 5. Developing information management systems or coding structures
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Recording and coding subjective and objective clinical information within role and responsibility • Completing incident reports • Recording and coding standard non-clinical information, for example resource use or binary survey responses, using existing templates • Accessing, synthesizing and interpreting information recorded by others, taking steps to query and correct potential errors
	Profile B (e.g. CHW)	• Recording and coding subjective and objective clinical information within role and responsibility • Recording and coding information about more complex clinical encounters where a support role was taken, under the responsibility of a senior health worker • Recording and coding narrative information, for example from discussion groups or consultation exercises • Completing incident reports • Accessing, synthesizing and interpreting information recorded by others, taking steps to query and correct potential errors
	Profile C (e.g. nurse)	• Recording and coding subjective and objective clinical information • Completing incident reports • Documenting information relating to multisectoral or team decisions, for example for transfers of care • Accessing, synthesizing and interpreting information recorded by others, taking steps to query and correct potential errors • Preparing prescriptions, birth or death certificates, and other legal documentation to be issued by a senior health worker • Developing coding structures for recording non-binary information, such as themes of feedback
	Profile D (e.g. paramedical practitioner)	• Recording and coding subjective and objective clinical information • Completing incident reports • Accessing, synthesizing and interpreting information recorded by others, taking steps to query and correct potential errors • Verifying and signing off information recorded by others • Issuing prescriptions, death certificates and other legal documents, under the supervision of a senior health worker • Developing information management or classification systems

Curricular content		A	B	C	D
1.	The role of accurate, comprehensive and accessible health information for quality health care and continuity of care	√	√	√	√
2.	The principles of information and digital literacy	√	√	√	√
3.	The available digital or hard copy information management systems, and methods to continue documentation when systems do not work	√	√	√	√
4.	The procedures, protocols and legal requirements for accessing and documenting information	√	√	√	√
5.	The information to be recorded, the format to record it, and how it will be accessed and used by others	√	√	√	√
6.	Mechanisms to access information	√	√	√	√
7.	The risks to health of data inaccuracies	√	√	√	√
8.	Reasonable and valid data ranges for data being accessed		√	√	√
9.	Methods to validate the quality of information recorded by self and others	√	√	√	√
10.	The principles of information security, confidentiality, ethics and patient safety as they relate to information about individuals, populations and health systems	√	√	√	√

PRACTICE ACTIVITY 28
REGISTERING INDIVIDUALS FOR HEALTH SERVICES

Tasks		1. Identifying individuals to be registered 2. Providing information and supporting individuals to register for health services 3. Gathering information about the individual and immediate health needs 4. Conducting initial triage
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Registering individuals who self-present • Gathering information about an individual's immediate health needs
	Profile B (e.g. CHW)	• Registering individuals who self-present • Engaging with members of the community to encourage them to register, including outreach visits and contact tracing • Gathering information about an individual's immediate health needs
	Profile C (e.g. nurse)	• Engaging with members of the community to encourage them to register, including outreach visits and partner tracing • Making decisions about priority based on clinical presentation
	Profile D (e.g. paramedical practitioner)	• Coordinating the admission process when managed by others • Conducting a triage assessment of multiple individuals • Making decisions about priority based on clinical presentation

Curricular content		A	B	C	D
1.	Processes and protocols for registration, admission and referral	√	√	√	√
2.	The role of health service registration in improving quality of care, patient flow, and use of resources	√	√	√	√
3.	The range of health matters that can be managed across the continuum of care by different health facilities and services within the health system	√	√	√	√
4.	Information to share with the individual to support them to register for health services	√	√	√	√
5.	The information to be gathered and recorded about the individual and their health needs	√	√	√	√
6.	Methods of managing situations where information about the individual is unknown		√	√	√
7.	Barriers to individuals in accessing health services, including costs, determinants of health, geography and access to payment or insurance		√	√	√
8.	Criteria for initial triage		√	√	√
9.	Criteria for prioritization based on clinical presentation		√	√	√

PRACTICE ACTIVITY 29
DELIVERING QUALITY IMPROVEMENT ACTIVITIES

Tasks		1. Gathering and analysing data and feedback 2. Identifying improvement opportunities 3. Establishing goals and reasons for change 4. Identifying solutions 5. Developing measures of change and impact 6. Planning for change 7. Engaging with others 8. Communicating change 9. Implementing and monitoring change 10. Evaluating impact 11. Sharing learning 12. Supporting the scale-up of sustained improvements
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Implementing continuous quality improvement activities • Proposing ideas for improvement in own practice, which may extend to the work of others • Acting as quality improvement focal person at community level, in some circumstances
	Profile B (e.g. CHW)	
	Profile C (e.g. nurse)	• Contributing to planning, implementing or monitoring continuous quality improvement activities • Acting as continuous quality improvement focal person at facility or community level, in some circumstances
	Profile D (e.g. paramedical practitioner)	• Contributing to planning, implementing or monitoring continuous quality improvement activities • Sometimes planning and leading implementation of continuous quality improvement activities • Acting as continuous quality improvement focal person at facility or district level, in some circumstances

Curricular content		A	B	C	D
1.	Concepts and principles of quality in health care, including effectiveness, safety, people-centredness, timeliness, integration, equity and efficiency	√	√	√	√
2.	The role of quality improvement in improving health and strengthening health systems	√	√	√	√
3.	The principles of successful change management, including piloting, implementing, scaling up and sustaining change			√	√
4.	The evidence base and the organizational structures, systems and pathways relevant to the area for improvement			√	√
5.	Strategies for quality improvement			√	√
6.	Relevant national or local improvement programmes, strategies, policies and standards			√	√
7.	Methods of root cause analysis				√
8.	Community awareness, as it relates to the catchment for health services, language, culture, religion, employment, housing, food, water, sanitation and hygiene; the role of other nongovernmental organizations and support groups; and the interrelationship among systems that may be impacted			√	√
9.	Methods to collect and store data and information	√	√	√	√
10.	Methods to analyse and interpret data and information			√	√
11.	Collaborative and consultative tools and methods for generating, categorizing and prioritizing change ideas			√	√
12.	Methods of identifying, engaging with and empowering stakeholders	√	√	√	√
13.	The role of stakeholder perspectives, buy-in and feedback in implementing sustainable change	√	√	√	√
14.	Project management methodologies			√	√
15.	Methods for developing and interpreting measures and indicators for monitoring, evaluation and impact			√	√
16.	Principles of teamwork for continuous quality improvement	√	√	√	√
17.	Principles of leadership for continuous quality improvement			√	√

PRACTICE ACTIVITY 30
PROVIDING WORKPLACE-BASED LEARNING AND SUPERVISION

Tasks		1. Planning for workplace-based educational activities 2. Providing formal or informal learning opportunities, including feedback on performance 3. Providing managerial supervision 4. Assessing workplace-based performance (formative and summative assessments) 5. Making decisions on workplace performance and progression 6. Recording and reporting performance 7. Participating in educator training, quality assurance and peer review activities
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Providing predominantly informal learning opportunities, including supervision and feedback • Providing supportive supervision, including managing poor performance and acknowledging good performance
	Profile B (e.g. CHW)	• Providing predominantly informal learning opportunities, including peer support and feedback • Providing supportive supervision, including managing poor performance and acknowledging good performance
	Profile C (e.g. nurse)	• Providing workplace-based educational activities, including demonstration, monitoring, supervision, case-based discussions, facilitated group work and providing feedback • Providing learning opportunities for colleagues, including supervision, reflective case-based discussions, peer review and feedback • Assessing workplace-based performance (formative and summative assessments) • Providing supportive supervision, including managing poor performance and acknowledging good performance
	Profile D (e.g. paramedical practitioner)	• Providing workplace-based educational activities, including demonstration, monitoring, supervision, case-based discussions, facilitated group work and providing feedback • Providing learning opportunities for colleagues, including supervision, reflective case-based discussions, peer review and feedback • Assessing workplace-based performance (formative and summative assessments) • Providing supportive supervision, including managing poor performance and acknowledging good performance

Curricular content		A	B	C	D
1.	The role and objectives of mentoring, supervision and formal line management	√	√	√	√
2.	Learning outcomes and standards for the area of practice	√	√	√	√
3.	The learner's scope of practice, role and responsibility, competence and expected performance standards	√	√	√	√
4.	The learner's learning needs and training requirements, if part of a training programme	√	√	√	√
5.	Responsibilities as a trainer or supervisor	√	√	√	√
6.	Different approaches to performance management, supervision, delegation, and accountability, and the grounds on which to intervene in the work of others (patient safety, quality and guidance) from a position of authority	√	√	√	√
7.	Tools, techniques and methods for workplace-based education and training, including demonstration, observation, supervision and feedback			√	√
8.	Appropriate tasks for learner observation or supervised practice			√	√
9.	Principles of learning and training in clinical settings, including duty of care, patient privacy, consent and engagement			√	√
10.	Strategies to ensure quality and safety in clinical practice whilst providing learning opportunities			√	√
11.	The standards for and methods to ensure safe working conditions, including managing sexual harassment and whistleblowing	√	√	√	√
12.	The implications of training for the resources for provision of care, for example the longer time or resources required			√	√
13.	Principles of adult learning theories, competency-based education and training, and proficiency			√	√
14.	Pre-agreed standards and processes for formative and summative assessment and the implications of pass or fail decisions			√	√
15.	Methods to make and record judgements on assessment of performance			√	√
16.	Support strategies and techniques, including supervision, mentoring and coaching	√	√	√	√
17.	Potential barriers to the learning progress of individuals, and methods to adapt training to overcome these	√	√	√	√

PRACTICE ACTIVITY 31
MANAGING HUMAN RESOURCES

Tasks		1. Identifying issues affecting the performance of health workers 2. Managing the performance of health workers 3. Planning for in-service training and career progression 4. Coordinating the work of others, for example through scheduling 5. Estimating workforce needs 6. Taking action to ensure the safety and well-being in the workplace for self and others 7. Enforcing adherence to legal regulations and protocols
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Monitoring workplace safety, identifying and reporting hazards
	Profile B (e.g. CHW)	• Monitoring workplace safety, identifying and reporting hazards
	Profile C (e.g. nurse)	• Coordinating the work of other health workers • Supporting others to identify their learning needs • Leading shift- or unit-based teams • Managing timetables or schedules
	Profile D (e.g. paramedical practitioner)	• Coordinating the work of health workers in multidisciplinary or intersectoral teams • Providing supportive supervision, including managing poor performance and acknowledging good performance • Setting targets for work performance • Conducting formal feedback sessions • Maintaining oversight of personnel adherence with regulations, safety and protocols

Curricular content		A	B	C	D
1.	The roles and objectives of the team	√	√	√	√
2.	The role and objectives of mentoring, supervision and formal line management			√	√
3.	The scopes of practice, responsibilities and performance standards for health workers within responsibility	√	√	√	√
4.	Different approaches to performance management, supervision, delegation, accountability and the grounds on which to intervene in the work of others (patient safety, quality and guidance)			√	√
5.	Strategies to empower and support others to do their work			√	√
6.	Factors underlying effective individual and team working, including role clarification, supervision, competencies, individuals' strengths and motivations, access to resources, safe working environment, feedback, celebrating successes, acknowledging contributions, and supporting others during times of difficulty	√	√	√	√
7.	Tools for estimating workforce resources, for example the workload indicators for staffing needs			√	√
8.	Principles of team dynamics and effective team functioning	√	√	√	√
9.	Principles of different management and leadership styles			√	√
10.	Strategies to motivate, engage, remediate poor performance and acknowledge good performance			√	√
11.	The standards for, and methods to ensure, safe working conditions, including managing sexual harassment and whistleblowing	√	√	√	√
12.	Availability of training and development opportunities	√	√	√	√
13.	Methods for alerting and managing issues of workplace safety			√	√
14.	Approaches to timetabling and coordinating scarce resources	√	√	√	√

PRACTICE ACTIVITY 32
MANAGING FINANCIAL RESOURCES

Tasks		1. Managing an allocated budget 2. Keeping financial records 3. Coding and billing for health services provided 4. Processing payments 5. Accessing financial resources in exceptional circumstances
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Recording and coding health services for the purposes of billing • Keeping basic financial records
	Profile B (e.g. CHW)	
	Profile C (e.g. nurse)	• Managing a programme budget • Keeping financial records
	Profile D (e.g. paramedical practitioner)	• Billing for health services • Paying invoices for goods and services • Managing a small cash float for specified low-cost purchases or charges • Paying operational costs, including salaries and rent • Managing a facility budget • Preparing financial records for accounting or audit purposes • Making decisions on resource rationalization

	Curricular content	A	B	C	D
1.	Money handling	√	√	√	√
2.	Mechanisms of payment and cost recovery for health services				√
3.	Tools and methods for coding, billing, chart review and plan documentation			√	√
4.	The use of health service coding data for billing and funding, and for other resource planning and modelling purposes, including quality management			√	√
5.	Methods for ensuring accuracy in coding of health services			√	√
6.	The importance of keeping accurate financial records	√	√	√	√
7.	Types of fraudulent activities	√	√	√	√
8.	Methods for identifying, investigating and addressing fraudulent activities			√	√
9.	Tools and methods for processing payments				√
10.	Principles of budget management			√	√
11.	Principles of cash management	√	√	√	√
12.	Access to financial resources in exceptional circumstances (contingency funding)				√

PRACTICE ACTIVITY 33
MANAGING PHYSICAL RESOURCES

Tasks		1. Using and storing equipment, facilities, medications and supplies 2. Accounting for equipment and supplies after use 3. Cleaning and maintaining equipment and facilities 4. Checking equipment and facilities are in safe working condition, including calibrating equipment and retiring expired medications 5. Managing the suspension, repair or replacement of faulty equipment 6. Stock control and ordering of medications, medical sundries, medical equipment and non-medical equipment 7. Rationalizing use of resources
Illustrative occupational roles	Profile A (e.g. nursing associate professional) Profile B (e.g. CHW)	• Checking and calibrating equipment • Returning equipment to storage in correct condition, or taking action to ensure that equipment is checked and cleaned prior to storing • Identifying and reporting malfunctioning equipment or out-of-date supplies • Completing audits of resource use • Maintaining equipment inventory • Completing periodic safety checks and issuing labels and instructions for use • Cleaning and sterilizing equipment
	Profile C (e.g. nurse)	• Preparing equipment for use by others • Making planning decisions on the use of physical resources and scheduling • Ordering repairs of malfunctioning medical and non-medical equipment • Stock control and (re)ordering supplies of medications, medical sundries, medical equipment and non-medical equipment
	Profile D (e.g. paramedical practitioner)	• Making planning decisions on the use of physical resources and scheduling, including resource rationalization • Ordering repairs of malfunctioning medical and non-medical equipment • Stock control and (re)ordering supplies of medications, medical sundries and medical and non-medical equipment • Forecasting requirements for medications, medical sundries and medical and non-medical equipment

Curricular content		A	B	C	D
1.	The use of equipment, facilities, accessories and supplies, including correct and incorrect methods of use, for interventions within scope	√	√	√	√
2.	Methods for recording use of equipment, facilities and supplies (for example booking requests, logging use)	√	√	√	√
3.	The frequency and use of equipment, facilities and supplies by the team or other health personnel, and other information to incorporate when forecasting			√	√
4.	Information that users of equipment and facilities need to know, including safety measures and correct methods of use	√	√	√	√
5.	Methods of stock control and ordering for medications, medical sundries and medical and non-medical equipment within scope	√	√	√	√
6.	Requirements for safe storage, including temperature and date	√	√	√	√
7.	Methods and resources for cleaning and sterilizing equipment and facilities between use	√	√	√	√
8.	Methods and standards to prepare and check equipment or facilities for use	√	√	√	√
9.	Mechanisms and protocols for reporting faulty, out-of-date or damaged equipment or supplies	√	√	√	√
10.	Methods and protocols for managing repairs, disposal or replacements			√	√
11.	The principles of water, sanitation and hygiene (including hand hygiene), waste management and environmental cleaning	√	√	√	√
12.	Health and safety risks associated with insufficient decontamination, cleaning and maintenance	√	√	√	√

PRACTICE ACTIVITY 34
PARTICIPATING IN EVALUATION AND RESEARCH

Tasks		1. Sharing information about research, evaluation or performance monitoring activities with individuals and communities 2. Collecting, synthesizing and interpreting data 3. Planning, implementing and evaluating local activities as part of a wider research study 4. Supporting the reporting of research results back to communities 5. Making decisions based on data and evaluation of research findings
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Collecting and recording non-clinical, non-personalized data, for example relating to frequency of visits or community resources, using templates
	Profile B (e.g. CHW)	• Gathering quantitative and qualitative information, for example through household surveys or focus groups • Preparing, maintaining and safely storing documentation as part of research
	Profile C (e.g. nurse)	• Discussing an individual's involvement in a research activity • Using a range of research methods to gather quantitative and qualitative information about individuals or about clinical findings • Preparing research study materials
	Profile D (e.g. paramedical practitioner)	• Coordinating local operations of a research study within an overarching framework • Interpreting locally collected information for presentation in summary reports

Curricular content		A	B	C	D
1.	The role of research in improving health and in measuring health system performance	√	√	√	√
2.	The goals of the specified research activity	√	√	√	√
3.	The evidence base for the area			√	√
4.	The roles of different team members as part of the study	√	√	√	√
5.	Principles of research, including formulating the research question, research study design, ethical considerations, consent, quality assurance, data collection and analysis methods, clinical audit, biostatistics, epidemiology, and general public health			√	√
6.	Research protocols, and the concepts of validity, reliability and rigour in relation to the methods used to collect, record and manage data and information			√	√
7.	Legal and ethical requirements, for example regarding data protection	√	√	√	√

PRACTICE ACTIVITY 35

DEVELOPING, EVALUATING AND IMPLEMENTING LOCAL POLICIES, PROCEDURES AND GUIDELINES

Tasks		1. Setting up the development or review team 2. Undertaking a baseline assessment 3. Undertaking a stakeholder analysis 4. Taking action to build awareness and commitment 5. Gathering information 6. Evaluating information and context 7. Drafting a policy, procedure or guideline 8. Testing (piloting or consulting) a policy, procedure or guideline 9. Implementing a policy, procedure or guideline 10. Monitoring the implementation of the policy, procedure or guideline
Illustrative occupational roles	Profile A (e.g. nursing associate professional)	• Gathering or sharing information, as directed within an overall plan • Adapting own work to incorporate a policy, procedure or guideline
	Profile B (e.g. CHW)	• Gathering or sharing information, as directed within an overall plan • Adapting own work to incorporate a policy, procedure or guideline • Representing a specific perspective on a steering group or review group
	Profile C (e.g. nurse)	• Leading specific aspects of a policy development process, for example information gathering, stakeholder mapping and consultation, or evaluation of inputs • Taking action to ensure the alignment of a policy, procedure or guideline change across areas of practice for own and others' work
	Profile D (e.g. paramedical practitioner)	• Leading the planning and coordination of a policy development process in some circumstances • Taking action to ensure the alignment of a policy, procedure or guideline change across areas of practice for own and others' work

Curricular content		A	B	C	D
1.	The role of policies, procedures and guidelines in ensuring quality of care and effective resource use	√	√	√	√
2.	The purpose of the development and evaluation of a policy, procedure or guideline (change in evidence or national standards or service improvement)	√	√	√	√
3.	The scope of content for the policy, procedure or guideline	√	√	√	√
4.	Frameworks for developing and evaluating policies, procedures and guidelines			√	√
5.	Methods to identify the impact(s) of the proposed policies, procedures and guidelines on different population groups, including specific populations with increased vulnerability (for example, income levels and poverty, gender, age, people with disabilities, people with underlying health conditions, migrants, displaced persons)			√	√
6.	Methods for developing and evaluating policies, procedures and guidelines, their resource implications, and steps to determine the most appropriate methods for the context			√	√
7.	Tools for resource mobilization, and the resources available for the process			√	√
8.	The principles of project management, including objective setting, timelines, resource planning, task allocation within teams, and governance related to decision-making			√	√
9.	Methods of stakeholder analysis			√	√
10.	The format and design of participatory approaches, and the principles of selection and representation of stakeholder input		√	√	√
11.	Relevant national policies, procedures or guidelines	√	√	√	√
12.	The relevant evidence base			√	√
13.	Sources of existing data, evaluation and research findings	√	√	√	√
14.	Methods for gathering new data (for example stakeholder feedback) and their applications, utility and relevance to the context	√	√	√	√
15.	The context in which the policy, procedure or guideline will be applied	√	√	√	√

4. Contextualizing the Global Competency and Outcomes Framework for UHC for competency-based education

When practice activities used as the organizing framework for curricula are aligned with population health needs, when the performance standards integrate behaviours, and when progress is defined by assessment of competence, the quality and relevance of new graduates can be assured. This chapter offers a high-level overview of a stepwise approach to using the Global Competency and Outcomes Framework for UHC to define outcomes (either as standards or as a framework) for a specific context, and then to develop a competency-based curriculum to meet those outcomes (standards only).

4.1 Contextualizing the Global Competency and Outcomes Framework for UHC for a specific context, set of services or occupational group

▶ Overview

There are two applications for an adaptation of the Global Competency and Outcomes Framework for UHC. Both can be contextualized through the same process but with a different level of detail:

- as a framework for further specification or wider application, for example for specific occupations or a service area, or to show progressive levels of performance;
- to specify the standards for a specific set of practice activities, integrating behaviours as performance measures.

Curricular outcomes are standards, and enable the assessment of an individual's performance in meeting those standards.

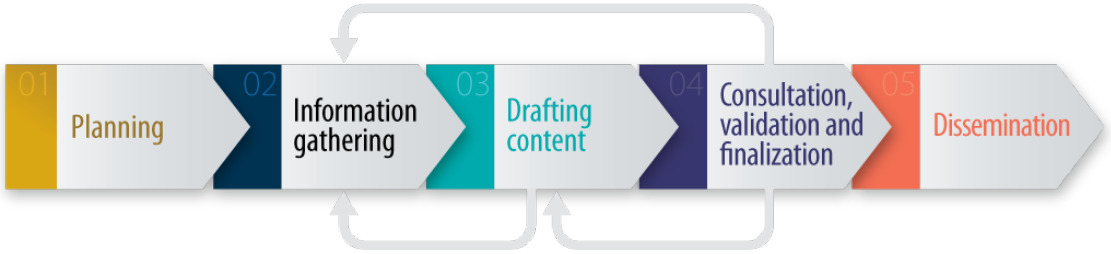
The distinction between a framework and standards reflects whether the specification of outcomes is an authoritative statement or for adaptation and adoption.

The initial focus of contextualization is to select and specify relevant practice activities. The relevant competencies and behaviours and competency-based standards can then be specified in relation to the practice activities selected for a specified context.

The process should be iterative and consultative, as presented in Figure 4.1. Although the Global Competency and Outcomes Framework for UHC identifies the competencies and practice activities for the group of health

workers with 12–48 months pre-service training, these provide a useful reference and structure that can potentially be used to identify programme outcomes for health workers with pre-service training pathways of any duration.

Fig. 4.1 Five-stage process for contextualizing the Global Competency and Outcomes Framework for UHC for a specific setting, health service or occupational group

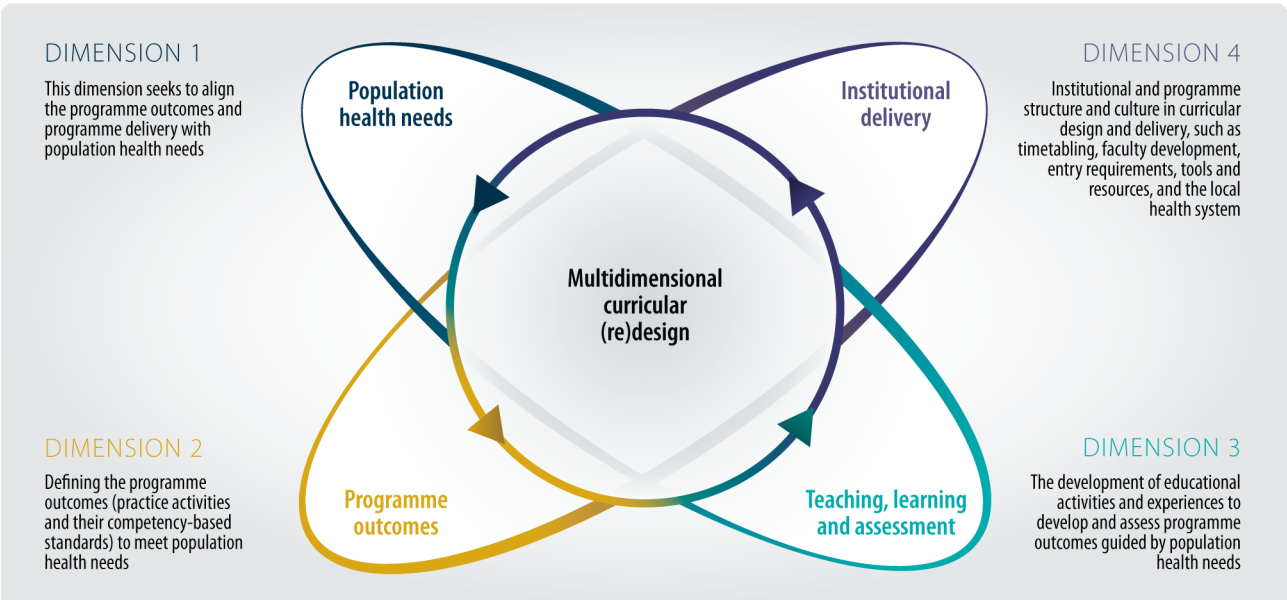


Stage 1: planning

In defining competency-based outcomes, there is a need to be mindful of how those outcomes will be implemented: they are only one part of an overall approach to implementing change. Before commencing the process of contextualizing the framework, it is important to think about the role of that framework within the curriculum. The potential gains of a competency-based curriculum can only be realized when they are part of a larger competency-prioritized environment where the outcomes of education programmes are aligned with the expectations of practice and regulation, internal and external risks (including due to emergencies), the availability of support, supervision, and training, and access to medicines, devices, technologies, information systems and financing.

Implementing the curriculum requires adequate institutional capacity, including trained faculty, learning resources and environments, as well as financial, political and regulatory support. Figure 4.2 presents the four dimensions of curricular (re)development, encompassing population health needs, programme outcomes, educational approaches and institutional delivery.

Fig. 4.2 Four-dimensional competency-based curricular development framework



Source: Adapted from Lee et al. *(72)*.

At the outset of any work to define the outcomes, it is important to define the goals of the work, the scope and the context. Broadly, there are three approaches to a competency framework *(73)*: analytic (competence deconstructed into individual pieces that are evaluated separately); synthetic (competence viewed holistically); or developmental (focuses on stages of, or milestones towards, competence). The Global Competency and Outcomes Framework for UHC is a hybrid of the synthetic (defines units of competence holistically) and analytic (identifying components of curricular content) approaches. The level of detail in the framework will be defined in relation to how it is intended to be used.

Finally, it is important that the planning stage takes into account the problem the work is trying to resolve, and whether the problem lies in course content, the training facilities or broader health system factors. For example, programmes with a vision of preparing health workers to practise in a rural or remote area may incorporate an approach encompassing targeted admissions policies; the location of health education facilities closer to rural areas; exposing students to rural and remote communities and clinical practices; and incorporating rural health topics. Equally, efforts may need to be joined up with employment practices to support faculty retention in rural areas *(74)*. Information gathering and validation is key to understanding the context and the problems the work is trying to solve, identifying realistic options for change, and ensuring that sufficient resources and time are allowed to develop and implement change.

There are six good practice features of education (re)design that the United Nations Educational, Scientific and Cultural Organization (UNESCO) proposes should be adopted throughout this process, as presented in Table 4.1 *(75)*.

Stakeholder analysis

Stakeholder analysis is the process of systematically gathering and analysing qualitative information to determine whose interests should be taken into account when developing or implementing a policy or programme. Stakeholder analysis is an important part of planning for the competency framework development process. WHO has published guides to stakeholder analysis in health *(76)* and health policy-making *(77)*.

The key stakeholders in competency framework development include educationalists and faculty; health workforce training institutions and clinical placement providers; learners or prospective learners; employers (public and private sector); occupational or professional associations; regulatory bodies; user groups, such as patient groups and community groups; minority groups or marginalized populations, including indigenous representatives; service developers and managers; and subject matter experts.

Implementing education (re)design activities to meet individual and population health needs should ensure that the lens of social accountability is applied throughout the work so that health workers are supported to acquire and, through practice and lifelong learning, maintain the knowledge, skills and attitudes to meet the changing health needs and expectations of the population *(29)*. A participatory approach with active community involvement is recommended to ensure that the contextualization and implementation of the framework meet the priority health needs of the community.

Governance and responsibilities

It can be useful to assign the roles and responsibilities of different stakeholders and key actors in the development process. This includes assigning who will have responsibility to coordinate the work; who will have a decision-making or consultative role; who will have oversight; and who has to sign off or approve the framework. It is useful to establish terms of reference for the different roles.

Table 4.1 Approaches to educational (re)design incorporating UNESCO's six principles of good practice

Approach	Characteristics of good practice	Tools and considerations
Planned and systematic	• Implements sequenced activities in a realistic time frame	• What is the timeline? • What is the workplan? • What are the financial costs for the process as well as for dissemination and uptake? • What are the resources available (human, infrastructure, technology and material) for the (re)design process? For implementation and uptake? • What are the tools for capturing and recording data? What are the decision-making mechanisms?
Inclusive	• Incorporates the expertise and perspectives of different stakeholders • Assigns leadership and coordination roles • Adopts a participatory approach to governance and decision-making	• Stakeholder analysis: Who is the target audience? Who will be affected by the change? • What are the political, legal or financial accountabilities? • How will stakeholders be involved in information gathering, governance, decision-making and implementation? • What is the language and terminology?
Informed	• Makes use of evidence and information, including advice, about educational reform and the context	• Does the framework reflect current practice or is it aspirational (future facing)? Should it show progression between different responsibilities? • Who is the framework for? What occupational groups are covered? • What are the problems and strengths of current educational approaches? • Why and why now implement (re)design? • What is the evidence around what works? • What are the considerations for implementing different policy options in this context?
Comprehensive	• Considers both the development of outcomes and the implementation of reform (four dimensions in Figure 4.2) • Identifies and manages strengths and weaknesses through design • Builds in monitoring and evaluation of impact as routine	• What is the context? What are the individual and population-level health services to be provided? • What risks do the population and health workforce face? • How will the curriculum be implemented to ensure learners can achieve intended learning outcomes? • What level of detail is required for operationalizing the framework or curriculum?
Targeted	• Is realistic about what solutions the change can bring, using clearly articulated objectives	• What is the scope of the educational (re)design, for example just the framework or framework and curriculum and implementation? • What is the level of granularity required for usability? There is a trade-off between a lot of detail, which requires more frequent updating, and insufficient detail to be useful
Broadly supported	• Ensures affected stakeholders are aware, involved and can plan for the change • Achieves acceptance across the system by those affected	• What level of endorsement is needed and from whom or which organizations? • How will the final product be made available or used? • What is the institutional readiness of and buy-in from stakeholders for change?

Resources

Once the workplan has been confirmed, the human and financial resources for the work need to be identified and released at the designated stages in the workplan. Financial costs may be incurred through staffing fees, working meetings, and the production and dissemination of the completed framework – as well as the resources to implement it, for example trained faculty and clinical training facilities.

▶ Stage 2: information gathering

It is important that information is gathered not only to inform the planning stage (budget, human resources, time, stakeholders), but also to inform the content and utility of the framework. Through the process of information gathering and triangulation, the goal is to identify and validate the broad functions of the scope of the framework; the tasks and subtasks within those functions; and the range of situations in which a person might need to perform those tasks. Guiding questions in information gathering are highlighted in Box 4.1.

Box 4.1 Guiding questions when gathering information to inform competency framework development

- What tasks are done?
- What is legally required?
- What needs to be done additionally or differently in future?
- What are the interactions with other people? What roles do other people have in regard to this task?
- Is the task part of a team effort or can it be done alone?
- What are the administrative tasks?
- What does good practice look like?
- What does effective or ineffective performance look like?
- Does effective performance look different in different contexts or situations or with different groups of people?
- Are there potential "never" events?
- What ethical dilemmas might be encountered?
- In what situations might these dilemmas typically be encountered?
- What are the typical situations or contexts in which these tasks are performed?
- What is the outcome of the tasks?
- How do these tasks contribute to an overall (organizational) mission?
- What is the source of information? Is it recent or still applicable? What is the perception or utility of that source? Is it opinion or factual or a legal requirement?

The approach to gathering information draws on both job analysis and task analysis methods *(78)*. Typically, competency frameworks are focused on the tasks rather than the job or the role holder. There is a range of methodologies that can be used for information gathering, including workshops, surveys, case studies, desk reviews, scenario-based interviews, direct observation or work sampling, as well as methods for validation and to achieve consensus. The methods of information gathering will be tailored to the scope of coverage, the amount of new information needed, the timeline, and the resources available to develop the framework. Evaluation will also need to take account of whether the gathered information is a requirement and unchangeable, or whether it is contextual and opinion based.

Competency-based education (CBE) has the potential to improve the health of the community only in so far as it uses context-specific health issues to determine the desired outcomes *(10)*. Further, it is important that the contextualized framework is rooted in accurate information about the expectations of health workers in practice. Sources of information, as well as areas for information gathering, are suggested in Table 4.2.

Table 4.2 Key themes and sources of information to inform competency framework development

Themes of information	Sources of information
Essential package of health services Relevant legislation, policies, regulations and guidelines Occupational role and scope of practice Local epidemiology, mortality and morbidity, emergency risk assessments	• Ministries of health and finance • Regulatory organizations • Existing competency frameworks and standards • Future-facing strategic documents • Delivery guidelines, standards or protocols • WHO or other global organizations • Professional associations • Quality requirements for the individual learner (regulation or licensing standards) • Quality requirements for the education institution (accreditation) • Existing curricula, competency frameworks or outcomes • Existing job descriptions • Data on burden of disease and prevalence of health conditions; quality of care • The Global Competency and Outcomes Framework for UHC practice activities (Chapter 3)
Local culture and context, for example economic conditions, climate, language, access to payment for services, specific vulnerable populations, challenges in practice and education Practice settings, including the health system, teams (facility or community based) Examples of good practice and effective performance Situations that the health worker is likely to encounter	• Subject matter experts (people who perform the work; people who manage, work with or mentor the people who perform the work; people who are recipients of the care) • All-hazards emergency risk assessments (risk profiles) • Gender-transformative education interventions *(21)* • Case studies • Records of events and never events • Observation • The Global Competency and Outcomes Framework for UHC competencies and behaviours (Chapter 2)

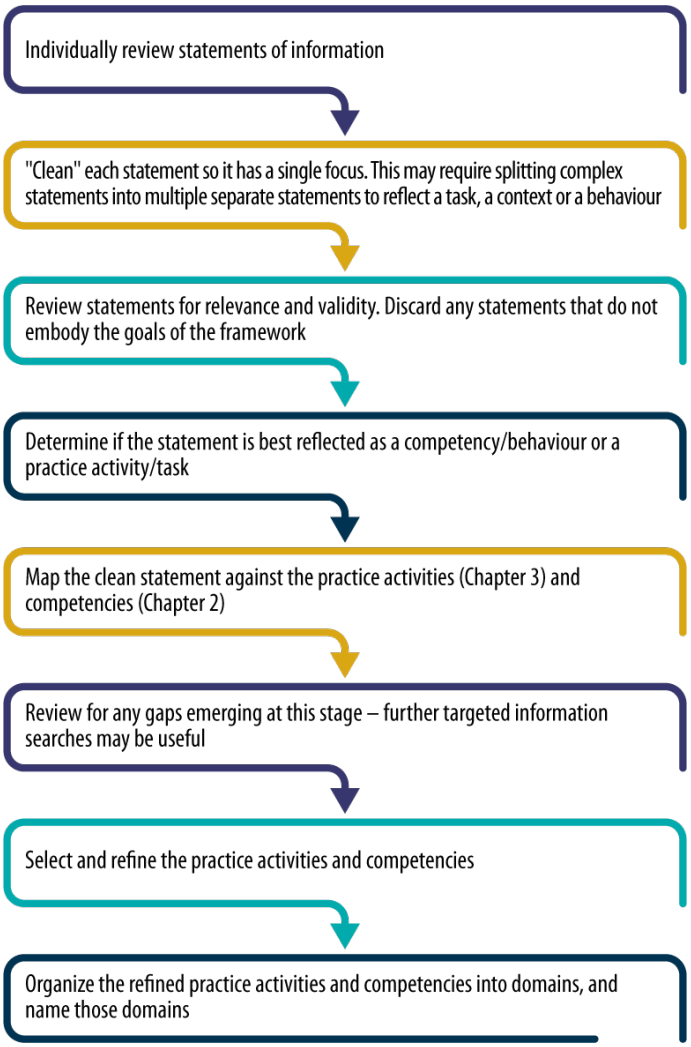
▶ Stage 3: drafting content

During information gathering, different types of information may emerge that are not immediately identifiable as practice activities, tasks, competencies or behaviours. Other content may include values, circumstances, motivations, outcomes or impacts. During the drafting stage of framework development, it is important to both (a) validate the content as relevant and appropriate to the scope of the framework; and (b) organize and refine the content into a usable format. This means breaking down what the role of the individual is in achieving certain outcomes or impacts, or how values or motivations might be demonstrated through behaviours. Note that for the specification of the outcomes, it is not necessary to define the knowledge and skills content; these are necessary and useful only for defining curricula. However, a record should be kept of the relevant knowledge, skills and attitudes identified at this stage. Figure 4.3 summarizes the process of drafting.

Some of the information gathered may reflect current practice, whether or not this is part of the ideal practice. It is important for the framework to reflect the goal outcomes, rather than accepting and perpetuating patterns of less-than-ideal working practices. The findings of any gaps between the goals and the actual practices can be important information to identify challenges elsewhere in the health system. At the same time, the framework can be useful to identify the kinds of situations and challenges a health worker might find themselves in, and to identify the range of responses and options in that situation. This is all important content for the framework.

When interpreting information, it is important to think about whether the information is contextual and might inform the knowledge, skills or attitudes; or whether it is an observable, discrete action (tasks or practice activities) or an ongoing habit that enables multiple tasks or practice activities (behaviours or

Fig. 4.3 Overview of the process for organizing content as part of framework development



competencies). The definitions and characteristics are provided in Annex 1. A note of caution around statements such as an "ability to do a task" – think about how that statement will be assessed. If the task is the subject of assessment, then include it within the practice activities and tasks; if it is the health worker's ability that underpins multiple tasks, then group the content within the competencies. It may be that through the process of information gathering, additional tasks or practice activities are identified. These should be grouped into groups of tasks within a discrete function of practice.

Using the information gathered in stage 2, the practice activities outlined in Chapter 3 can be selected and specified as relevant. The 35 practice activities in this framework describe the core functions of health practice for teams of health workers with a pre-service pathway of 12–48 months, and which are considered integral to the attainment of UHC. Not all of these practice activities will be a regulated activity related to scope of practice; however, they all warrant consideration for inclusion in the curriculum. For example, some of the practice activities on communication (for example, practice activity 18 – providing or receiving a clinical presentation) or management (for example, practice activity 27 – accessing and documenting information) are essential to practice and hence are important areas of curricula, whether or not they are regulated. Box 4.2 presents guiding questions to select and specify practice activities.

Box 4.2 Guiding questions to select and specify practice activities

- What are the tasks within this practice activity, if any, as part of the role and responsibility?
- Are there specific health services, or health conditions, for which this practice activity is required?
- Does the title of the practice activity meaningfully reflect the groups of tasks it encompasses? Could the tasks within this practice activity be merged with another practice activity? Does the title require editing or additional clarification to accurately reflect the tasks within scope?
- Is the practice activity suitable for certification?

There are two approaches to specifying the limitations: incorporating the specification within the practice activity title, for example a named health intervention (in place of "providing non-pharmacological interventions"); or clarifying the scope, for example "making a diagnosis" (in place of "making a clinical judgement"); or an accompanying set of details, such as a list of medicines that can be prescribed or procedures that can be provided *(79)*. As such, a single practice activity identified within the Global Competency and Outcomes Framework for UHC may be separated into several smaller practice activities, each with added specificity, and renamed entirely. By the same approach, several related practice activities may be combined. The goal is to define the practice activities that, in total, describe the range of activities of health practice for the context.

Practice activities should only be excluded when they are explicitly out of scope, often because the tasks are explicitly part of another health worker's role.

Competency-based standards

Chapter 2 identifies the competencies deemed to be essential for the provision of quality health services in UHC. It may be that not all of these competencies have been explicitly identified through the information-gathering stage. However, the same approach to reviewing and selecting practice activities and competencies should be taken: only exclude a competency if it is explicitly not relevant to the role. For a role encompassing a range of responsibilities across practice activities, it would be unexpected to remove competencies.

The drafting of competencies, and behaviours, for an adapted competency framework requires a deep understanding of the performance of the selected practice activities (and component tasks) and the settings or situations in which the health worker may perform those practice activities. Where practice activities are rooted in job descriptions, reflections on effective behaviours are inherently judgement based, and feedback from and the consensus of subject matter experts are key.

The behaviours identified in Chapter 2 are relevant to all health workers and framed through the lens of primary health care. Whilst all competencies are expected to be relevant, it may be that specific behaviours are added, or framed differently, for other contexts, such as working in fragile or conflict-affected settings.

When competency frameworks are used alongside standards of practice, they facilitate improvement of job performance *(80)*; promote the attainment and maintenance of fitness to practise; aid identification of knowledge gaps and learning needs *(81)*; and foster continuing personal development. Standards should be criterion referenced, in that they are measurable, realistic, safe, and not dependent upon the performance of others.

Competency-based standards are the performance measures for the practice activity. They typically encompass four components:

- a single action verb: the behaviour or measurable performance of the health worker (tip: avoid "ability to do x", as it is not the ability that needs to be assessed, but whether they do it):

- content: subject matter, use of tools;
- context: conditions under which the competency is demonstrated, including level of supervision, in certain situations, with certain audiences;
- criterion-referenced performance standard: for example, frequency, a level of accuracy, documentation expected.

In a competency framework, the competencies and behaviours will be organized separately from the practice activities. When adapting the framework to define competency-based standards, they are organized together. Annex 2 provides templates for both formats.

Domains

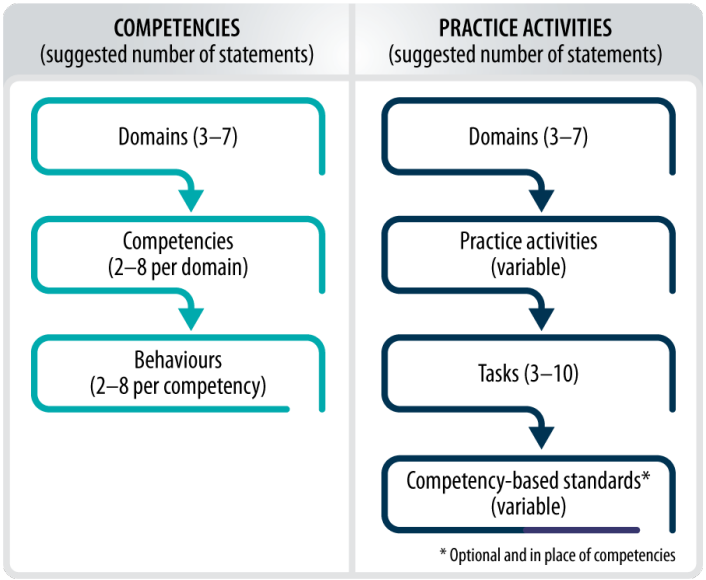
Domains are the headings for groups of statements within the framework. The three domains for practice activities within the Global Competency and Outcomes Framework for UHC reflect the range of health functions as a whole team across individual health, population health, and management and organization. Through the process of contextualization, it may be that other domains are more appropriate to organize the content of the framework. A similar approach might be relevant to the adaptation of the competencies, though fewer changes are anticipated there. Psychologists have debated the "rule of seven" (plus or minus two) for the purpose of memorability *(82)*. The domains are arguably the presentation of the core values and priorities, and the key elements reflected in any visual representation.

Whilst the competencies and practice activities are measurable, the domains are the identifying characteristics that enable the reader to grasp the key principles at a glance. Domain names should be meaningful to the competency framework. Domains are not measurable; for clarity they should reflect concepts rather than statements that include a measurable verb.

Granularity

There is no "one-size-fits-all" approach to the detail of the content. Whatever the scope of the framework, the level of granularity should be consistent throughout, and it should enable its intended use and application. In Figure 4.4 the organization of the different components within the framework, and a guide to the number of statements within each component, are suggested.

Fig. 4.4 Proposed granularity and organization for a competency framework



▶ Stage 4: consultation, validation and finalization

The process of consultation and validation of the findings is continuous, rather than being a single stage in the development process. Through the process of contextualization or refinement additional information needs may emerge, which may in turn inform how the outcomes and competencies are organized and specified.

A competency and outcomes framework represents the key areas of practice focus, effective behaviours, and the most appropriate organization and presentation of content. The stakeholder analysis conducted as part of the planning stage should be used to involve the target organizations and individuals as part of the consultation, validation and finalization stage to seek consensus and acceptance. Box 4.3 lists some potential methods of seeking and recording stakeholder review and feedback.

Box 4.3 Potential consensus methods

- Delphi surveys
- Nominal group technique
- Panel reviews (simultaneous)
- Peer reviews (sequential)
- Surveys
- Working groups (meetings or focus groups)

There is no single way to gather feedback, but consideration should be given to how and when it will be distributed, received and evaluated. Every outcome should be validated individually, as well as overall comprehensiveness. Again, referring back to the planning stage, the roles of decision-making authorities for the process guide the agreement of the final framework. Table 4.3 presents a checklist that can be used to verify the final framework.

Table 4.3 Checklist for finalizing a population health needs-based competency framework

Success factors	Success measures (checklist)
Valid	☐ Content is based on the population health needs, roles and responsibilities and scopes of practice ☐ Content meets legal requirements ☐ The outcomes and competencies are clearly articulated ☐ Content is comprehensive ☐ The standard reflects the required proficiency ☐ Content is supported by evidence and guidelines ☐ Content is supported by consensus
Acceptable	☐ The framework is acceptable to all stakeholders
Usable	☐ The structure, layout and style of the framework make it easy to use the content ☐ The framework, including any supporting tools, is usable by all of its intended applications ☐ Complex ideas are conveyed in a simple manner ☐ Terms are not ambiguous ☐ The language, abbreviations and terminology are appropriate for the intended use (including if using translation) ☐ Outcomes and competencies are measurable

▶ Stage 5: dissemination

A dissemination strategy is an important part of ensuring the application and uptake of the adapted competency framework and competency-based standards as intended. There are many different ways of ensuring that the framework reaches its intended audience, and awareness amongst key stakeholders should have been built throughout the planning, consultation and development process. Further dissemination tools include:

- making the content available in digital or hard copy formats;
- promoting publication and availability via social media and mailing lists;
- having the publication endorsed and promoted by partner organizations;
- holding workshops (digital or in person) tailored to specific audiences or user groups.

4.2 Developing competency-based curricula from competency-based outcomes (standards)

This section looks at the development of curricula to support learner achievement of the outcomes defined in the adapted competency framework. To recap, the practice activities provide the holistic areas of health practice that a learner will be able to perform on completion of the course; standards specify the performance measures for the situations in which these practice activities should be performed, including the level of supervision. This means that the curricular outcomes are both the practice activities and the behavioural standards; note that competencies are themselves not a terminal objective and proficiency will continue to develop after programme completion.

The curriculum encompasses the content of learning, the organization and sequencing of content, the learning experiences, teaching methods, and the formats of assessment, as well as continuous quality improvement and programmatic evaluation *(23)*. This section addresses the key principles for each of these in turn. Whilst it provides a systematic approach to curricular (re)design, it does not define curricular content or educational approaches. These should be determined by the institution (or standard-setting body), reflect the programme learning outcomes, and be tailored to the context and the needs of learners. This approach can be applied in the context of pre- or post-service curricular development.

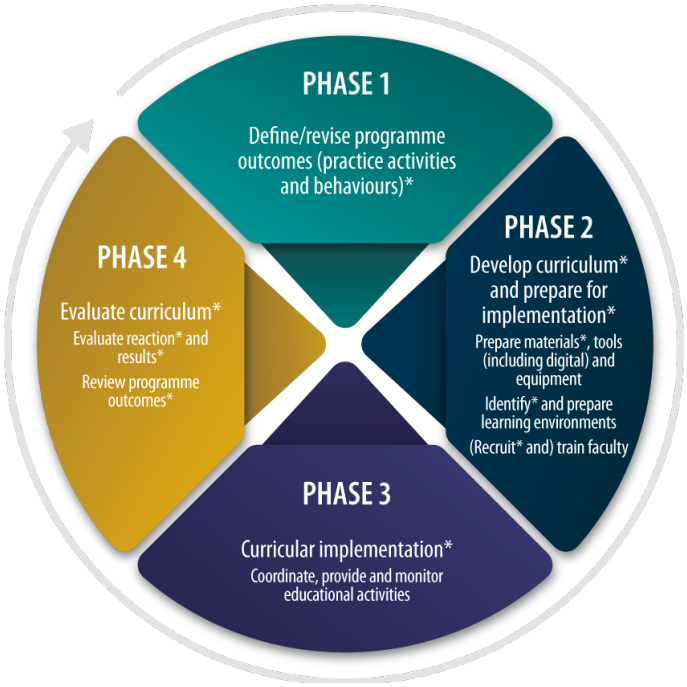
▶ Planning

Planning and information gathering are requisite foundations for curricular (re)design and development. This section is written as a continuation of the process of contextualizing the competency framework to define programme outcomes (stage 1 in the previous section). The planning, stakeholder analysis, assigning governance and responsibilities, resourcing and information gathering for contextualizing the framework should all be upheld if following this process as a stand-alone education intervention.

A well designed curriculum is critical to the implementation of CBE, and it must be within the context of institutional capacity, including faculty, learning resources (equipment, libraries, technologies), availability of learning environments (clinical, digital) and supervision. The planning process must account for all components in the sequential process of implementing a new or revised curriculum, as illustrated in Figure 4.5, for the new curriculum to be implemented as intended. It can be noted that just as the principles

of social accountability were integrated into the definition of the programme outcomes (practice activities and behaviours), the principles of social accountability should be integral to the sequential process for strengthening and implementing new or revised curricula, including the integration of educational experiences across community health service provision, and the selection and recruitment of students and faculty from the local community.

Fig. 4.5 Phases of strengthening education programmes through curricular (re)design

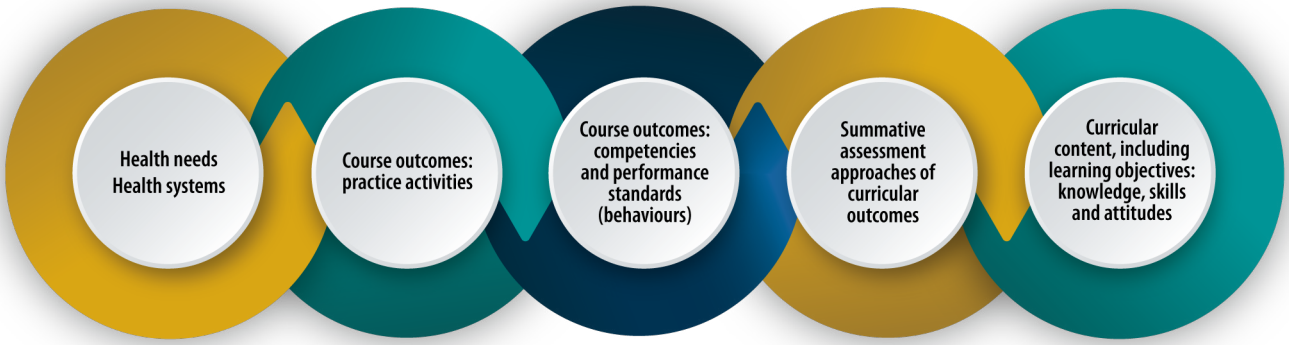


Note: * denotes community engagement.
Source: Adapted from Integrated Management of Childhood Illness *(83)*.

The content of learning

The curricular outcomes should be defined in terms of practice activities and their component tasks, and the behaviours reflecting competencies for the performance standards of those practice activities. This next step requires translating each of those desired outcomes into learning objectives that articulate the component knowledge, skills and attitudes, as well as practice activities, tasks, competencies and behaviours for the required proficiency. The learning objectives are the subject of assessment, and collectively should enable the learner to perform the practice activity to the requisite standard (Figure 4.6).

Fig. 4.6 Defining learning objectives that meet population health needs



Two taxonomies help to clarify different kinds of learning and can provide the basis for defining learning objectives. These are Bloom's taxonomy of knowledge (recall, understanding, application, analysis, evaluation and creation) *(84)* and Miller's pyramid of clinical competence (knows, knows how, shows how, does) *(85)*.

When using a competency and outcomes framework to identify and define performance standards it is important to first define the conditions under which the tasks should be performed, the specific tools that may be used, and the level of supervision or autonomy. Then, the component knowledge, skills, attitudes and behaviours can be identified that enable the individual to perform those tasks. With these parameters defined, learning objectives can be elicited from the knowledge, skills, attitudes and behaviours, using verbs that reflect the proficiency.

The Global Competency and Outcomes Framework for UHC provides a curricular guide for each of the practice activities that can be used to inform the specification of learning objectives or units of learning. Not all of the curricular areas will be required, dependent on the combination of tasks within the specified practice activities. During the information-gathering phase, further knowledge, skills and attitudes may have been identified. It is important to identify the range of knowledge, skills and attitudes that underpin the learning objectives, and in turn the learning outcomes, as these inform the learning experiences and methods of assessment.

Additional considerations in identifying learning objectives for knowledge and skills may include:

- mastery of knowledge for practice activities and the accompanying range of health interventions;
- contextual knowledge, for example relating to local culture and customs;
- procedural skills and use of equipment and technologies;
- attitudes or demonstration of attitudes through behaviours for effective performance;
- tools, methods, strategies and actions that can be adopted to integrate competencies into practice, for example the range of communication techniques or digital technologies;
- different situations or scenarios that might be encountered;
- different groups of individuals or organizations that the individual may work with, and the nature of those interactions (from sharing information to persuading or negotiating).

Additional considerations in identifying learning objectives for attitudes may include:

- concepts and theories related to each behaviour;
- the impact of each behaviour on health practice, health-seeking behaviours and health outcomes;
- examples of positive and negative behaviours in the context of the practice activities;
- tools and techniques to integrate behaviours into practice;
- the importance of each behaviour;
- the motivation to perform each behaviour.

One example of connecting the competencies for competency 20: contributes to a culture of safety and continuous quality improvement is explored in Table 4.4 in the context of two practice activities in the individual health domain:

- practice activity 9: prescribing medications or therapeutics
- practice activity 10: preparing and dispensing medications or therapeutics

Table 4.4 Illustrative learning objectives for competency 20 and its component behaviours

Competency	Behaviour	Learning objective
Competency 20: contributes to a culture of safety and continuous quality improvement	**20.1** Adheres to safety protocols that avoid adverse events, health care errors, and incidents of harm and unsafe practice	a. Defines each term within the definition of quality in health care b. Describes the role of each term as it contributes to the provision of quality in health care c. Locates all safety protocols and checklists existing in the workplace relating to prescribing, preparing and dispensing medications d. Identifies the events within prescribing and dispensing that require reporting e. Implements all safety protocols and checklists existing in the workplace f. Completes a self-check of a prescription order g. Describes the available PPE and the situations for which it is used h. Demonstrates the donning, doffing and disposal of PPE
	20.2 Learns from what works and what has not gone well	a. Describes the process of learning from experience through self-assessment b. Evaluates the successes, challenges and potential failures during a prescribing interaction
	20.3 Offers suggestions for improvement to address identified problems	a. Identifies a useful way to present suggestions for improvement b. Drafts at least one memorandum or presentation to describe potential solution to a prescribing error
	20.4 Participates in quality measurement and continuous quality improvement processes	a. Identifies times and places for discussion of continuous quality improvement in the practice setting b. Describes the contributions of different team members to quality improvement processes

▶ Assessment

Assessment is a fundamental feature of CBE – both the focus on the achievement and summative assessment of outcomes (assessment of learning), and the integration of continuous formative assessments (assessment for learning) *(22)*. There are three principles that should guide the construction of assessment approaches: assessment should be transparent so that learners and tutors know what is being assessed and how; every competency should be assessed, not just those that are easy to assess; and assessment should be triangulated, so that each outcome is assessed in more than one way on more than one occasion to reflect the adaptation to context.

The measure of competence is the performance of the required practice activities, integrating competencies to the defined standard for the context. This requires that the criteria for assessment have been defined clearly. Assessment of competence is critical for the learner, the tutor, the institution, the accrediting body, the employer and ultimately the community served. In some settings, the decisions about whether a learner has attained the standard of competence to graduate from a programme or to begin practice are the same decision; in other settings, these decisions are separated, for example if there is an external licensing assessment separate from a graduation decision.

The range of learning outcomes cannot all be assessed in a single assessment format *(9)*. In the same way that the learning experience should be matched to the learning objective, the assessment format should be aligned *(85)*. The multiplicity of assessments is sometimes referred to as a system for this reason. Assessment of the diversity of programme outcomes requires multiple assessment methods, and multiple trained assessors *(22)*. Similarly, health workers do not perform consistently from task to task: competence is context specific, not generic *(86)*. Therefore, a determination of a person's competence should incorporate multiple measures in different settings and at different times.

Formative assessments enhance learning by providing ongoing feedback to the learner and tutor to target additional learning needs; they motivate the students; and they provide indications of progress during a programme. Summative assessments can be used for a pass or fail decision, but also to grade or rank learners in relation to each other (for example, selection for a competitive activity or role). The purpose of the assessment, and how the assessment information will be used, influences the selection of assessment formats, and the effort required to ensure that the assessment decisions are defensible.

There are many different assessment formats used in CBE in health worker education, using paper-based or digital formats, and sometimes involving multiple assessors, patients, actors or simulated clinical conditions as well as performance-based assessment in practice. The selection of the most appropriate assessment formats for the learning outcome should reflect who (both learner and assessor); what (learning outcome, content); where (workplace-based, simulation, self-paced, examination hall); when (stage in the programme); why (purpose: formative or summative); and how (what format, standard or guideline for a decision).

Factors involved in selecting the choice of assessment instruments include the validity (does the assessment measure what it is intended to measure?), reliability (is the assessment reproducible and consistent?), educational impact, cost–effectiveness and feasibility *(88)*. Consideration must also be given to the assessment standards, which may require complex procedures to define the actual score or performance metric by which a learner would be considered competent *(9)*. Various time-consuming but essential methods have been developed to determine passing standards for knowledge assessments, item by item, such as the techniques of Angoff, Ebel and Hoftsee. The choice of method will depend upon the available resources and on the consequences of misclassifying assessment outcomes *(86)*.

Strategies to manage these different factors include multiple assessors to increase the inter-rater reliability, training faculty to ensure that the assessment is used as intended (validity), and adjusting the length of testing time or the number of assessment items. These in turn affect the cost–effectiveness or feasibility of the assessment. In Table 4.5, utility considerations are depicted in relation to assessment formats to assess the different types of learning outcome.

Table 4.5 Assessment formats and their relevance to learning outcomes and programme outcomes

		Utility considerations			Learning objectives			Programme outcomes	
Stage in Miller's pyramid *(84)*	**Example assessment formats**	**Reliability**	**Cost–effectiveness, feasibility**	**Validity, impact**	**Knowledge**	**Skills**	**Attitude**	**Behaviour**	**Practice activities**
Does	• Case-based discussion • Checklists • Direct observation of procedural skills • Mini-clinical evaluation exercise • Multi-source feedback • Patient record review • Portfolio	Subjective	Close supervision, unpredictable	Authentic, positive impact on learning, narrow breadth	(√)	(√)	(√)	√	√
Shows how	• Observed structured clinical examination • Objective structured long examination record • Oral case presentation • Skills laboratory • Simulation exercises • Standardized patient encounter • Virtual reality case management		Resource intensive to run (controlled situations, predictable)		(√)	√	(√)	(√)	(√)
Knows how	• Chart-stimulated recall • Development of individual learning plan • Essay • Oral questioning with longer answers • Clinical problem solving				√	(√)	(√)		
Knows	• Constructed response questions • Multiple choice questions • Short answer questions	Objective	Resource intensive to develop, predictable	Inauthentic, wide breadth	√				

Note: (√) inferred, √ explicit.

Finally, programmatic assessment of the pass or fail decision should be decoupled from individual assessments, or made by a single assessor *(22)*. Indeed, such decisions should only be made when sufficient information is gathered and combined from the multiple summative assessments of each of the requisite practice activities to the defined standard.

▶ The organization and sequencing of content

Curricular sequencing involves managing the learner's route in a way that makes it easier for them to organize meaningful patterns in the vast amount of content and to achieve learning outcomes. When designing a curriculum, it is common and advisable to break complex competencies into sets of knowledge and skills, ensuring mastery of each before attempting to assess the application of that knowledge and skill

to in the context of the practice activity. Sequencing may involve moving from simple to complex; general information or principles to a more detailed consideration; or from theoretical to application in practice. In some situations, the sequencing of modular units of learning may be influenced by logistics, for example clinical rotations. Of prime consideration in sequencing are the prerequisites to different course units; the areas of knowledge, skills and attitudinal consolidation; and the application of outcomes gained.

The development of competencies should be integrated into the learning activities for the practice activities identified as course outcomes. For example, effective communication can only be learned – and assessed – in the context of the practice activities requiring communication.

▶ Learning experiences and teaching methods

Effective CBE is rooted in constructive alignment theory *(89)*, whereby the learning experiences and assessment of learning are aligned with the defined outcomes. Different learning experiences suit different types and levels of knowledge and skill. There are many different curricular approaches that are compatible with competency-based curricula, including community-oriented or community-based, integrated, task-based, system-based, modular, spiral, discipline-based, and problem-based learning. Further, many different educational approaches and tools warrant consideration, including the flipped classroom, interprofessional education, problem-based learning, small-group learning, reflective practice and blended learning, depending on the content of the learning, the learning outcomes to be achieved and the goals of the educational programme.

Selection of learning experiences requires careful planning with regard to what can be taught and learned in clinical settings. There are different schools of thought on whether clinical exposure is better early, to provide the grounding and relevance for later detailed learning, or whether it is better to first gain the theoretical grounding prior to clinical experience. In many contexts, access to supervised clinical learning is limited and provides a resource constraint to the curricular design.

As far as possible, course learning materials should be up to date, evidence based, and relevant to the country and setting in which the curriculum will be implemented. For example, some materials published in high-resource settings, or in urban areas, may need supplementary material to be relevant to other settings.

An important part of operationalizing a curriculum is determining the time, the learning environments, the learning contexts and the materials for achieving the learning objectives. Scheduling, particularly where clinical placements are required, presents some limitations that seem at odds with a competency-based approach. However, competence is not a static trait, and learners will continue to develop and consolidate their learning with continued clinical exposure. The introduction of a competency-based approach within a time-based system is possible, provided that mastery of outcomes signals the progression.

Health worker education can play a transformative part in gender and inclusion for both learners and faculty, in terms of both content and organization of delivery. When planning for the delivery of education, consideration should be given to gender-transformative education interventions, such as flexible timetabling and approaches that enable pregnant learners to continue their training *(21)*.

Table 4.6 illustrates how the learning experiences and assessment formats for a given set of learning objectives should be aligned. To reduce the risk of overburdening the curriculum with assessment, it is important to consider how many learning objectives can be assessed by the same format at the same time.

Table 4.6 Alignment of learning experiences and assessment formats with illustrative learning objectives for competency 20

Behaviour	Learning objective	Learning experience	Assessment format
20.1	a. Defines each term within the definition of quality in health care b. Describes the role of each term in the provision of quality in health care c. Locates all safety protocols and checklists existing in the workplace relating to prescribing, preparing and dispensing medication d. Implements all safety protocols and checklists existing in the workplace e. Identifies the events within prescribing and dispensing that require reporting f. Implements all safety protocols and checklists existing in the workplace g. Completes a self-check of a prescription order h. Describes the available PPE and the situations for which it is used i. Demonstrates the donning, doffing and disposal of PPE	• Group-based discussion of the areas of practice: prescribing medications and therapeutics; preparing and dispensing medications and therapeutics, with a focus on the potential for errors, the potential patient impact of errors, and experiences with errors or follow-up • Watch a video of personal protective equipment demonstration • Read the safety protocols and checklists • A 45-minute lecture on the key components of quality improvement, the resources that can support quality improvement, and the roles of different personnel in quality improvement, with specific references to the issues that come from working mostly alone or with only one other person, and an overview of how protocols or checklists may help or hinder quality improvement	• Multiple choice questions (formative) • Objective written test (summative) • Observed performance (formative) • Multi-source feedback (ongoing)
20.2	a. Describes the process of learning from experience through self-assessment b. Evaluates the successes, challenges and potential failures during a prescribing interaction	• Group discussions of three or four learners to reflect on a real or potential error and what might have been done to avoid this; then full class discussion, highlighting issues related to staff hesitancy to do reporting and follow-up of errors or possible errors	• Oral questioning (summative) • Case-based discussion (formative)
20.3	a. Identifies a useful way to present suggestions for improvement b. Drafts at least one memorandum or presentation to describe a potential solution to a problem	• Write an action plan to identify existing quality improvement activities, if any, and draft a quality improvement memo	• Case-based discussion (formative) • Planned observation by checklist or rating (summative)
20.4	a. Identifies times and places for discussion of continuous quality improvement in the practice setting b. Describes the contributions of different team members to quality improvement processes	• Complete a reflective report based on real-life experience	• Oral questioning (summative) • Case-based discussion (formative) • Self-reflection report (formative)

▶ Continuous quality improvement and programmatic evaluation

Curricular evaluation is an integral part of curricular development. Kirkpatrick's hierarchy of evaluation *(90)* incorporates evaluation of reaction (learner satisfaction), evaluation of learning (knowledge and skills acquired), evaluation of behaviour (transfer of learning to the workplace) and evaluation of results (impact on society). Table 4.7 suggests some approaches to curricular evaluation at these levels.

Table 4.7 Examples of programmatic evaluation of curricular design and implementation

Kirkpatrick level of outcome	Audience	Format	Example points of evaluation
Reaction	Learners	Course evaluation questionnaire	• Satisfaction • Engagement • Relevance of course content • Methods and burden of assessment • Learning materials • Learning experiences • Infrastructure, facilities
	Faculty	Survey, interview	• Methods and burden of assessment • Learning materials • Learning experiences
Learning	Learners	Programme evaluation questionnaire	• Learner readiness • Changes in knowledge, skills, attitudes, competencies, confidence and commitment
Behaviour	Course graduates	Survey, interview	• % of learners employed • Perception of readiness for role and responsibility
	Employers	Survey, interview	• Learner/graduate general readiness for practice • Learner/graduate confidence • Learner/graduate values and attitudes
Results	Individuals, communities	Service user survey Service data	• Quality of care • Health outcomes

References

1. World Health Organization and World Bank. Tracking universal health coverage: first global monitoring report. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/174536/1/9789241564977_eng.pdf?ua=1, accessed 18 June 2021).
2. Universal health coverage (UHC). Geneva: World Health Organization (https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc), accessed 18 June 2021).
3. Working for health and growth: investing in the health workforce. Report of the High-Level Commission on Health Employment and Economic Growth. Geneva: World Health Organization; 2016.
4. Health workforce policies in OECD countries: right jobs, right skills, right places. OECD Health Policy Studies. Paris: Organisation for Economic Cooperation and Development; 2016.
5. World Health Organization, Organisation for Economic Co-operation and Development, and World Bank. Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization; 2018.
6. WHO Global Strategy on People-Centred and Integrated Health Services: interim report. Geneva: World Health Organization; 2015.
7. Global Strategy on Human Resources for Health: Workforce 2030. Geneva: World Health Organization; 2016.
8. Cometto G, Buchan J, Dussault G. Developing the health workforce for universal health coverage. Bulletin of the World Health Organization. 2020;98:109–16.
9. Gruppen L, Mangrulkar R, Kolars J. The promise of competency-based education in the health professions for improving global health. Human Resources for Health. 2012;10:43.
10. Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010;376:1923–58. doi:10.1016/s0140-6736(10)61854-5.
11. Cooke M, Irby DM, O'Brien BC. Educating physicians: a call for reform of medical school and residency. San Francisco: Jossey-Bass; 2010.
12. Maedo A, Socha-Dietrick K. Feasibility study on health workforce skills assessment: supporting health workers achieve person-centred care. Paris: Organisation for Economic Co-operation and Development; 2018.
13. Evans T, Araujo EC, Herbst CH, Pannenborg O. Addressing the challenges of health professional education: opportunities to accelerate progress towards universal health coverage. Doha, Qatar: World Innovation Summit for Health; 2016.
14. Greaves P, Loquist R. Impact evaluation: a competency-based approach. Nursing Administration Quarterly. 1983;7:81–6.
15. Thurman G, Sanders M. Competency-based education versus traditional education: a comparison of effectiveness. Radiology Technology. 1987;59:164–9.

16. Long D. Competency-based residency training: the next advance in graduate medical education. Academic Medicine. 2000;75:1178–83.

17. Stillman P, Wang Y, Quyang Q, Zhang S, Yang Y, Sawyer W. Teaching and assessing clinical skills: a competency-based programme in China. Medical Education. 1997;31:33–40.

18. Hitzblech T, Maaz A, Rollinger T, Ludwig S, Dettmer S, Wurl W et al. The modular curriculum of medicine at the Charité Berlin: a project report on the basis of a term-overarching student evaluation. German Medical Science Journal for Medical Education. 2019;36(5):Doc54.

19. Dijkstra I, Pols J, Remmels P, Rietzschel E, Cohen-Schotanus J, Brand P. How educational innovations and attention to competencies in postgraduate medical education relate to preparedness for practice: the key role of the learning environment. Perspectives on Medical Education. 2015;4(6):300–7.

20. Parson L, Childs B, Elzie P. Using competency-based curriculum design to create a health professions education certificate program that meets the needs of students, administrators, faculty, and patients. AMEEMR Health Professions Education. 2018;4(3):202–17.

21. Newman C, Ng C, Pacqué-Margolis S, Frymus D. Integration of gender-transformative interventions into health professional education reform for the 21st century: implications of an expert review. Human Resources for Health. 2016;14:14.

22. Lockyer J, Carraccio C, Chan MK, Hart D, Smee S, Touchie C et al. Core principles of assessment in competency-based medical education. Medical Teacher. 2017;39(6):609–16.

23. Van Melle E, Frank J, Holmboe E, Dragone D, Stockley D, Sherbino J et al. A core components framework for evaluating implementation of competency-based medical education programs. Academic Medicine. 2019;94(7):1002–9.

24. Carraccio C, Wolfsthal S, Englander R, Ferentz K, Martin C. Shifting paradigms: from Flexner to competencies. Academic Medicine. 2002;77(5):361–7.

25. McGaghie W, Miller G, Sajid A, Telder T, Lipson L. Competency-based curriculum development in medical education. Geneva: World Health Organization; 1978.

26. Bhutta Z, Chen L, Cohen J, Crisp N, Evans T, Fineberg H et al. Comment. Education of health professionals for the 21st century: a global independent commission. Lancet. 2010;375:1137–8.

27. Global Health Workforce Alliance and World Health Organization. Scaling up, saving lives. Report for the Task Force for Scaling Up Education and Training for Health Workers. Geneva: World Health Organization; 2008.

28. World Health Organization and the United Nations Children's Fund, A vision for primary health care in the 21st century: towards universal health coverage and the Sustainable Development Goals. Geneva: World Health Organization; 2018.

29. Dussault G, Kawar R, Castro Lopes S, Campbell J. Building the primary health care workforce for the 21st century. Background paper to the Global Conference on Primary Health Care. Geneva: World Health Organization; 2018.

30. Preparing a health care workforce for the 21st century: the challenge of chronic conditions. Geneva: World Health Organization; 2005.

31. Primary health care on the road to universal health coverage. Geneva: World Health Organization; 2019.

32. World Health Organization and United Nations Children's Fund. Declaration of Astana: Global Conference on Primary Health Care. Geneva: World Health Organization; 2018.

33. International Standard Classification of Occupations (ISCO-08). Volume 1: Structure, group definitions and correspondence tables. Geneva: International Labour Office; 2012.

34. Jamison DT, Nugent H, Gelband H, Horton S, Jha P, Laxminarayan R et al. Disease control priorities, third edition [nine volumes]. Washington (DC): World Bank; 2015–2018.

35. ICD-11: International Classification of Diseases, 11th revision. Geneva: World Health Organization; 2018 (https://icd.who.int/en/, accessed 22 June 2021).

36. World Organization of Family Doctors. International Classification of Primary Care, revised second edition. Oxford: Oxford University Press; 2005.

37. International Classification of Health Interventions (ICHI). Geneva: World Health Organization (https://www.who.int/standards/classifications/international-classification-of-health-interventions, accessed 18 June 2021).

38. Cobb N, Nyoni MMJ, Mulitalo K, Cuadrado H, Sumitani J, Kayingo G et al. Findings from a survey of an uncategorized cadre of clinicians in 46 countries: increasing access to medical care with a focus on regional needs since the 17th century. World Health and Population. 2015;16(1):72–86.

39. Qualification pack: National Occupational Standards (QP-NOS). India Sector Skills Council (http://www.healthcare-ssc.in/national-occupational-standards-page-193, accessed 22 June 2021).

40. Metadata for tracer indicators used to measure the coverage of essential health services for monitoring SDG indicator 3.8.1. Geneva: World Health Organization; 2018 (https://www.who.int/healthinfo/universal_health_coverage/UHC_Tracer_Indicators_Metadata.pdf, accessed 22 June 2021).

41. Stenberg K, Hanssen O, Edejer TTT, Bertram M, Brindley C, Meshreky A et al. Financing transformative health systems towards achievement of the health Sustainable Development Goals: a model for projected resource needs in 67 low-income and middle-income countries. Lancet Global Health. 2017;5(9):e875–87. doi:10.1016/S2214-109X(17)30263-2.

42. Health emergency and disaster risk management framework. Geneva: World Health Organization; 2019.

43. WHO competency framework for health workers' education and training on antimicrobial resistance. Geneva: World Health Organization; 2018.

44. Framework on integrated, people-centred health services: report by the Secretariat. Sixty-ninth World Health Assembly, agenda item 16.1. Geneva: World Health Organization; 2016 (http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_39-en.pdf, accessed 18 June 2021).

45. WHO Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. Geneva: World Health Organization; 2008.

46. Framework for Action on Interprofessional Education and Collaborative Practice. Geneva: World Health Organization; 2010.

47. EB144/29. Patient safety: global action on patient safety. Report by the Director-General. In: Executive Board, 144th session, December 2018. Geneva: World Health Organization; 2019.

48. World Health Assembly resolution WHA72.6. Global action on patient safety. In: Seventy-second World Health Assembly, Geneva, 20–28 May 2019: resolutions and decisions. Geneva: World Health Organization; 2019.

49. Boelen C, Heck J. Defining and measuring the social accountability of medical schools. Geneva: World Health Organization; 1995.

50. World Health Organization and Office of the United Nations High Commissioner for Human Rights. A human rights-based approach to health. Geneva: World Health Organization; 2009.

51. Right of everyone to the enjoyment of the highest attainable standard of physical and mental health: note by the Secretary-General. Document A/74/174. In: United Nations General Assembly, Seventy-fourth session. New York: United Nations; 2019.

52. Draft global strategy on digital health 2020–2024. Geneva: World Health Organization; 2020.

53. Working together for health: the world health report. Geneva: World Health Organization; 2006.

54. Frank J, Snell L, Sherbino J. CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015.

55. ACGME common program requirements (residency). Philadelphia: Accreditation Council for Graduate Medical Education (ACGME); 2020.

56. Englander R, Cameron T, Ballard A, Dodge J, Bull J, Aschenbrener C. Towards a common taxonomy of competency domains for the health professions and competencies for physicians. Academic Medicine. 2013;88(8):1088–94.

57. A global competency framework for services provided by pharmacy workforce. FIP Education Initiatives. The Hague: International Pharmaceutical Federation; 2012.

58. Nursing care continuum framework and competencies. ICN Regulation Series. Geneva: International Council of Nurses; 2008.

59. Essential competencies for midwifery practice. The Hague: International Confederation of Midwives; 2018.

60. Englander R, Frank J, Carraccio C, Sherbino J, Ross S, Snell L et al. Towards a shared language for competency-based medical education. Medical Teacher. 2013;39(6):582–7.

61. ten Cate O. Entrustability of professional activities and competency-based curriculum. Medical Education. 2005;39(12):1176–7.

62. Shorey S, Lau T, Lau S, Ang E. Entrustable professional activities in health care education: a scoping review. Medical Education. 2019;53(8):766–77.

63. Bloom B, Mesia B, Krathwohl D. Taxonomy of educational objectives. New York: David McKay; 1964.

64. Anderson L, Krathwohl D, Airasian P, Cruikshank K, Mayer R, Pintrich P et al. A taxonomy for learning, teaching, and assessing: a revision of Bloom's taxonomy of educational objectives. Boston: Allyn & Bacon; 2001.

65. Mills JA, Middleton J, Schafer A, Fitzpatrick S, Short S, Cieza A. Proposing a reconceptualisation of competency framework terminology for health: a scoping review. Human Resources for Health. 2020;18:15.

66. Frank J, Snell L, ten Cate O, Holmboe E, Carraccio C, Swing S et al. Competency-based medical education: theory to practice. Medical Teacher. 2010;32(8):638–45.

67. Dreyfus H, Dreyfus S. Mind over machine: the power of human intuition and expertise in the age of the computer. Oxford: Basil Blackwell; 1986.

68. Mannava P, Durrant K, Fisher J, Chersich M, Luchters S. Attitudes and behaviours of maternal health care providers in interactions with clients: a systematic review. Globalization and Health. 2015;11:36.

69. Jepsen R, Ostergaard D, Dieckmann P. Development of instruments for assessment of individuals' and teams' non-technical skills in healthcare: a critical review. Cognition, Technology and Work. 2015;17:63–77.

70. Health Communication Capacity Collaborative (HC3). Factors impacting the effectiveness of health care worker behaviour change: a literature review. Baltimore: Johns Hopkins Center for Communication Programs; 2016.

71. Facilitating evidence-based practice in nursing and midwifery in the WHO European Region. Copenhagen: World Health Organization Regional Office for Europe; 2017.

72. Lee A, Steketee C, Rogers G, Moran M. Towards a theoretical framework for curriculum development in health professional education. Focus on Health Professional Education. 2013;14(3):70–83.

73. Pangaro L, ten Cate O. Frameworks for learner assessment in medicine: AMEE guide No. 78. 2013.

74. WHO guideline on health workforce development, attraction, recruitment and retention in rural and remote areas. Geneva: World Health Organization; 2021.

75. Training tools for curriculum development: a resource pack. Geneva: UNESCO International Bureau of Education; 2017.

76. Transforming health priorities into projects: health action in crises 1–2. Stakeholder analysis. Geneva: World Health Organization; 2009.

77. Schmeer K. Stakeholder analysis guidelines. Geneva: World Health Organization, Global Health Workforce Alliance; 1999.

78. Hart L, Carr C, Fullerton J. Task analysis as a tool for health systems strengthening: an implementation guide. Baltimore: Jhpiego; 2015.

79. Matrix specification of core clinical conditions for the physician assistant by category of level of competence. United Kingdom Department of Health; 2006.

80. Coombes I, Avent M, Cardiff L, Bettenay K, Coombes J, Whitfield K et al. Improvement in pharmacist's performance facilitated by an adapted competency-based general level framework. Journal of Pharmacy Practice and Research. 2015;40(2):111–8.

81. Czabanowska K, Klemenc-Ketis Z, Potter A, Rochford A, Tomasik T, Csiszar J et al. Development of a competency framework for quality improvement in family medicine: a qualitative study. Journal of Continuing Education. 2012;32(3):174–80.

82. Miller G. The magical number seven, plus or minus two: some limits on our capacity for processing information. Psychological Review. 1956;63(2):81–97.

83. Integrated Management of Childhood Illness (ICMI): planning, implementing and evaluating pre-service training. Geneva: World Health Organization; 2001.

84. Bloom B. Taxonomy of educational objectives, handbook: the cognitive domain. New York: David McKay; 1956.

85. Miller G. The assessment of clinical skills/competence/performance. Academic Medicine. 1990;65(9):63–7.

86. Wass V, van der Vleuten C, Shatzer J, Jones R. Assessment of clinical competence. Lancet. 2001;357:945–9.

87. van der Vleuten C, Sluijsmans D, Joosten-ten Brinke D. Competence assessment as learner support in education. In: Competence-based vocational and professional education, technical and vocational education and training: issues, concerns and prospects. Switzerland: Springer International Publishing; 2017:607–30.

88. van der Vleuten C. The assessment of professional competence: developments, research and practical implications. Advances in Health Sciences Education. 1996;1(1):41–67.

89. Biggs J. Constructive alignment in university teaching. HERDSA Review of Higher Education. 2014;1:5–22.

90. Kirkpatrick D. Evaluation of training. In: Training and development handbook. New York: McGraw-Hill; 1967.

Annex 1

Writing principles for the components of a competency framework: competencies, behaviours, practice activities and tasks

The following are the writing principles developed and applied in the development of the Global Competency and Outcomes Framework for UHC. They are also provided here to guide users in contextualizing the framework.

Competency	
Definition	The ability of a person to integrate knowledge, skills, and attitudes in their performance of tasks in a given context. Competencies are durable, trainable and, through the expression of behaviours, measurable
Characteristics	• Continuous, ongoing abilities • May develop or erode with time • Enables performance of multiple practice activities • A person can possess a competency • A competency is demonstrated in the context of performance • Requires the integration of knowledge, skills and attitudes • The behaviour demonstrating the competency defines the standard for performance • A competency is multifaceted (demonstrated through multiple behaviours) • Behaviours are the measurable expression of a competency
Writing principles	1. Action verb: third person singular 2. Lists are in alphabetical order 3. The focus is on the role of the individual, rather than why or what the end result might be; does not assign attitudes, beliefs, goals or motivations 4. No statements of what not to do 5. No relative or evaluative adverbs (for example quickly, slowly) or adjectives (for example good, effective, appropriate); these are more appropriate for standards 6. Each competency appears once in the framework; some competencies may have an overlapping focus if additional detail is provided, for example, communicates effectively with patients, colleagues and intersectoral teams. In this case judgement is required whether to organize as part of "communication" or "collaboration"

Behaviour	
Definition	Observable conduct towards other people or tasks that expresses a competency. Behaviours are measurable in the performance of tasks
Characteristics	• Continuous, ongoing behaviours (habits) • May develop or erode with time • Enables performance of multiple practice activities • Requires the integration of knowledge, skills and attitudes • Defines the standard for performance • Multiple behaviours demonstrate a single competency • Performance is measurable as a judgement on a scale of frequency (never, sometimes, always)
Writing principles	1. Action verb: third person singular 2. A single, measurable verb only 3. Lists are in alphabetical order 4. Does not assign attitudes, beliefs, goals or motivations; the focus is on the role of the individual, rather than why or what the end result might be 5. The expression of behaviour is within the power or control of the health worker; a health worker controls their actions or response to a situation but they cannot control the outcome 6. No statements of what not to do 7. No relative or evaluative adverbs (for example quickly, slowly) or adjectives (for example good, effective, appropriate); these are more appropriate for standards 8. Each behaviour appears once in the framework

Practice activity	
Definition	A core function of health practice comprising a group of related tasks. Practice activities are time limited, trainable and, through the performance of tasks, measurable. Individuals may be certified to perform practice activities
Characteristics	• Describes the common goal of a group of tasks • Time-limited, discrete actions, observable from start to finish • Requires the application of knowledge, skills and attitudes • A person can perform a practice activity or task, but they cannot possess it • The unit of assessment, certification or regulation
Writing principles	1. Single action verb: present tense, continuous 2. The "size" of a practice activity is not reflective of the curricular time; it is acceptable that these are variable 3. Each practice activity appears once in the framework

Task	
Definition	An observable unit of work within a practice activity that draws on knowledge, skills and attitudes. Tasks are time limited, trainable and measurable
Characteristics	• Time-limited, discrete actions, observable from start to finish • Requires the application of knowledge, skills and attitudes • A person can perform a practice activity or task, but they cannot possess it • The unit of assessment, certification or regulation • A smaller, measurable unit within a practice activity • Does not achieve a goal in itself; is abstract unless considered in the context of the wider practice activity • Performance is measurable on a dichotomous scale (yes or no)
Writing principles	1. Single action verb: present tense, continuous 2. Does not represent a guideline or sequential performance 3. Represents good practice 4. Applicable across roles, settings, situations or tasks, without specifying them 5. Does not incorporate occupational standards, such as the frequency, the circumstances in which to execute the task, or interpretations of what is appropriate or relevant 6. No relative or evaluative adverbs (for example quickly, slowly) or adjectives (for example good, effective, appropriate); these are more appropriate for standards 7. Appears once within a practice activity. May appear in multiple practice activities

Annex 2

Templates for contextualizing the Global Competency and Outcomes Framework for UHC for a specific context, set of services or occupational group

There is no single correct way to represent the competencies and practice activities, as it depends on their level of granularity, their number, the domains, and how much of the underlying detail is defined. Each of the two options below could be further expanded to add proficiency levels relating to the tasks within responsibility if the contextualized framework is intended to guide milestones in a learner's journey.

Format 1: competency and outcomes framework

Suitable for a framework that has broad application across multiple occupational groups or settings, for further adaptation and adoption.

Competency domain	Practice activity domain
1. Competency a. Behaviour b. Behaviour c. etc.	1. Practice activity a. Task b. Task c. etc.
2. Competency a. Behaviour b. Behaviour c. etc.	2. Practice activity a. Task b. Task c. etc.
3. Competency a. Behaviour b. Behaviour c. etc.	3. Practice activity a. Task b. Task c. etc.

Format 2: competency-based standards

Authoritative statements of performance or defined programme outcomes.

Practice activity	Title
Tasks	a. Task b. Task c. etc.
Performance standards	a. Behaviour (action verb) + content (tools, subject matter) + criteria (frequency, accuracy etc.) b. Behaviour (action verb) + content (tools, subject matter) + criteria (frequency, accuracy etc.) c. etc.

Health Workforce Department
World Health Organization
20 Avenue Appia
CH 1211 Geneva 27
Switzerland
www.who.int/hrh

9789240034662