

Postgraduate education and training of medical doctors on prevention and management of disorders due to substance use and addictive behaviours

Meeting report • Changsha, China, 1–3 February 2024





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This report contains the views of an international group of experts and does not necessarily represent the decisions or the stated policy of the World Health Organization.

Acronyms and abbreviations

AlcOL	Alcohol use disorders Online Learning
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ICD-11	International Classification of Diseases (11th revision)
ISAM	International Society of Addiction Medicine
NECPAM	Network of Early Career Professionals working in the area of Addiction Medicine
NExT	New professionals, exploration, training and education
SDGs	Sustainable Development Goals
SUDs	Substance use disorders
SUD/AB	Substance use disorders and addictive behaviours
ИНС	Universal health coverage
UN	United Nations
UNODC	United Nations Office on Drugs and Crime
wно	World Health Organization



Executive summary

Psychoactive substance use significantly contributes to poor global health, resulting in various health conditions, including substance use disorders, mental disorders, communicable and noncommunicable diseases, with millions of deaths attributed to alcohol, tobacco and drug consumption annually. Health services' ability to address this burden relies heavily on the availability of a well-prepared health workforce, yet many countries lack capacity and investment in their health systems to effectively manage substance use disorders. The present meeting aimed to discuss the postgraduate education and training of medical doctors in the field of substance use and addictive behaviours, including the scope and procedural aspects, core competencies required, and the role of the World Health Organization (WHO) in developing a health workforce specialized in prevention and management of disorders due to substance use and addictive behaviours. The meeting took place in Changsha, China, on 1–3 February 2024 and was hosted by the Central South University, a WHO Collaborating Centre for Psychosocial Factors, Drug Abuse and Health, and the National Centre for Mental Disorders.

The meeting reached a clear consensus about the need to further strengthen the education and training of medical doctors in the field of substance use and addictive behaviours. Informed by the presentations and technical discussions during the meeting, three key recommendations emerged. First, the meeting stressed need to adopt a competency-based framework in the (re)development of education and training programmes focused on the prevention and management of substance use disorders and addictive behaviours (SUD/AB). Second, participants emphasized the importance of directing these programmes to the medical workforce, in particularly medical doctors (both the specialized¹ and non-specialized in SUD/ AB), to ensure comprehensive coverage at all levels of the health system. Third, participants agreed on the need to adopt a nationally coordinated and systematic approach to the development of these programmes in order to establish consistency and synergy in efforts (e.g. aligning programmes with policies and national initiatives, registration and (re)certification processes and employment opportunities and, most importantly, the population's needs).

Finally, the meeting participants agreed to put forward recommendations to strengthen advocacy for the development of workforce in SUD/AB, to promote competency-based postgraduate education and training in SUD/AB and to enhance collaboration and support for coordinated national activities on developing systematic, sustainable and locally-driven education and training programmes. The meeting endorsed WHO's continued efforts to advance health workforce education in SUD/AB, and recommended that *"WHO develop a comprehensive quide for postgraduate"* education and training of medical doctors on prevention and management of disorders due to substance use and addictive behaviours". This guide should cater to both specialized and non-specialized medical professionals and focus on establishing a competency-based framework. It could also incorporate supplementary material, such as a tool for curriculum development and implementation. The meeting concluded with the consensus to establish an informal technical working group that will continue the work and discussions started at the meeting.

¹ In the context of this document, "doctors specialized in SUD/AB" includes those who trained and certified to provide comprehensive care (including diagnosis, treatment and prevention) for disorders due to substance use and addictive behaviours. The term "doctors non-specialized in SUD/ AB" includes all other medical doctors who can play an important role in care for these conditions, but who are not specifically trained or certified to provide comprehensive care for disorders due to substance use and addictive behaviours.

1. Introduction

1.1. Background and rationale

Psychoactive substance use is one of the main risk factors for poor health worldwide. Due to their psychoactive, intoxicating, dependence-producing and toxic properties, psychoactive substances lead to or contribute to the development of numerous health conditions – including substance use disorders (SUDs), substance-induced mental disorders, suicides, major noncommunicable diseases, injuries and infectious diseases. It is estimated that around 2.6 million deaths worldwide are attributable to alcohol consumption, around 8 million deaths are attributable to tobacco smoking, and around 0.6 million deaths are attributable to psychoactive drug use.

Health services and health professionals play an important role in the prevention and management of health conditions due to psychoactive substance use.

The potential of health services to prevent and reduce the health and social burdens caused by substance use depends to a large extent on the roles and competencies of health professionals in developing and delivering effective prevention and treatment strategies and interventions.

Despite the inclusion of a health target on strengthening the prevention and treatment of "substance abuse" in the 2030 Agenda for Sustainable Development, many countries lack sufficient capacity or investment in their health systems to address effectively the prevention and management of disorders due to substance use and to address substance use as a risk factor for many other health conditions. One of the major barriers is a lack or insufficient development of a specialized medical workforce on substance use and addictive behaviours. That includes the lack of, or insufficient development of, postgraduate-level medical education which is the basis for specialized health workforce development and service provision. This challenge is aggravated by rapidly growing complexity and diversity of the knowledge base in the field of addiction medicine, diversification of psychoactive substances, and increasing treatment demand associated with addictive behaviours. The 11th revision of the International Classification of Diseases (ICD-11) contains numerous innovations in the classification and nomenclature of disorders due to substance use and addictive behaviours that require proper reflection in the education and training programmes of health professionals.

The World Health Organization (WHO) has advocated for pre-service education on mental, neurological and substance use disorders for general health providers as this is often lacking in low- and middle-income countries. A meeting in Geneva organized in December 2022 by WHO's Department of Mental Health and Substance Use focused on pre-service education in mental health and resulted in a recommendation to develop a guide on pre-service education in mental health for general health professionals.

Effective implementation and scaling up of prevention and treatment interventions for disorders due to substance use and addictive behaviours in primary health care require the availability of specialized services for referrals and, accordingly, properly trained health professionals.

The present meeting aimed to complement the previous work and concentrated on postgraduate education and training of medical doctors in the field of prevention and management of disorders due to substance use and addictive behaviours. This work is in line with WHO's workforce development framework which has as its objectives: 1) optimizing the quality and impact of the health workforce; 2) aligning investment in this workforce to match pressing, current and future needs of the population and health systems; and 3) building the capacity of the health workforce and institutions at all levels.

1.2. Meeting objectives

The specific objectives of the meeting were:

- to discuss the concept, scope, nature and procedural aspects (setting standards, implementation, accreditation, certification) of the education and training of medical doctors in the field of substance use and addictive behaviours by sharing experiences and lessons learned;
- to discuss core competencies of medical doctors required the for prevention and management of health conditions due to substance use and addictive behaviours, with a focus on the postgraduate/ specialization stage of education and training;
- to discuss the role of WHO in the development of a health workforce specialized in the prevention and management of disorders due to substance use and addictive behaviours and required activities at global level; and
- 4. to develop a roadmap for WHO action on development of a health workforce specialized in the prevention and management of disorders due to substance use and addictive behaviours (which may involve fieldtesting and/or implementation in selected low- and middle-income countries).

The meeting took place in Changsha, China, on 1–3 February 2024 and was hosted by the Xiangya School of Medicine and the Second Xiangya Hospital of Central South University, a WHO Collaborating Centre for Psychosocial Factors, Drug Abuse and Health.

1.3. Background papers

Four background papers were distributed to participants prior to the meeting. The content of the background papers is further described in the following sections of this report. The persons who contributed to the development of the background papers are listed in the Acknowledgements of this report. The background papers were:

- Background paper 1. Core competencies for medical doctors on prevention and management of disorders due to substance use and addictive behaviours.
- Background paper 2. Training needs of early-career doctors in addiction medicine: preliminary results of a multi-country survey.
- Background paper 3. Training for medical doctors in addiction medicine: current landscape and available opportunities.
- Background paper 4. Pre-service education in mental health: forming the right foundations.

2. Overview of presentations

The agenda of the meeting can be found in Annex 1.

Presentations and discussions during the three days of the meeting included sessions on the following topics:

- Current practices of postgraduate education and training of medical doctors on prevention and management of health conditions due to substance use and addictive behaviours: examples from countries.
- Postgraduate education of health professionals on substance use and addictive behaviours in the activities of other organizations.
- Core competencies of medical doctors on prevention and management of health conditions due to substance use and addictive behaviours at different levels of health care.
- International collaboration on further development of postgraduate education of health professionals on substance use and addictive behaviours: the role of WHO.

2.1. Setting the scene

Dr Vladimir B. Poznyak set the scene for the meeting with a presentation that highlighted the meeting's alignment with the agenda and targets of United Nations (UN) Sustainable Development Goals (SDGs) and WHO's work on universal health



coverage (UHC). Dr Poznyak highlighted *the need for* greater promotion of mental health and well-being,

strengthened prevention and treatment of substance use disorders, and increased recruitment, development, training and retention of the health workforce.

The presentation drew attention to high-level policy frameworks that address alcohol and drug use, as well as the prevention, treatment and care for disorders due to substance use – such as the UN SDG Health target 3.5 (Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol), operational recommendations of the Thirtieth Special Session of the UN General Assembly on the world drug problem, the Global strategy to reduce the harmful use of alcohol and the Global alcohol action plan 2020-2030. The present meeting would help to shape future work on core competencies for the medical workforce in terms of prevention and management of substance use disorders and addictive behaviours (SUD/AB). Participants also heard of other landmark public health decisions by WHO in this area, such as the 2023 inclusion of two medicines (acamprosate and naltrexone) for the treatment of alcohol use disorder in the WHO Model List of Essential Medicines. In tandem with ensuring the necessary education and training to make use of these and other medications, this decision would help boost the prevention and treatment of alcohol use disorders. In addition, the International Classification of Diseases, 11th revision (ICD-11), has incorporated several innovations, including the introduction of a special section for disorders due to addictive behaviours. All these developments highlight the synergistic ways in which health systems should work - e.g. being mindful that decisions made about medications for inclusion in national plans should have an impact on the curricula of education and training programmes and, consequently, channels of communication should remain open between all stakeholders.

Ms Siobhan Fitzpatrick of

WHO's Health Workforce Department presented an overview of WHO's approaches and projects in the area of competency-based education. In 2022, WHO published its *Global competency and*



outcomes framework for universal health coverage. This document offers guidance on the (re)design of competency-based curricula that are oriented towards population health needs through primary health care. This model shows that health practice involves conducting a series of context-specific tasks. The same practice activity may involve different tasks in different settings or at different times. The acquisition of competencies ensures that these practice activities are performed proficiently in all settings. In other words, this approach helps to ensure that health practitioners acquire the necessary competencies to perform the required practice activities to a defined standard in any given context. Competency-based education programmes incorporate assessment strategies that allow learners to demonstrate their proficiency, thereby ensuring that they do not just "know" but can "know and show" how to perform the practice and effectively carry out the required activities. Developing a competency-based education and training programme starts by identifying the health needs which in turn will help in identifying the competencies required in the field, ultimately guiding curriculum development. The curriculum should include tailored learning experiences and competency-focused instruction in order to help learners develop the necessary competence – i.e. the essential knowledge, skills and attitudes to perform as required in their practice. Ms Fitzpatrick also highlighted the multidimensional nature of curricular (re)design when using a competency-based framework which includes population health needs as the first guiding dimension with which all programme outcomes should be aligned.

Dr Brandon Gray of WHO's Department of Mental Health and Substance Use described WHO's ongoing work on preservice education in mental, brain and behavioural health, with a focus on medical doctors and nurses. In the context of this



work, pre-service education is defined as the learning that takes place before entering the medical profession and in preparation for this professional role. The groundwork for this initiative started in 2022 with a scoping review and key informant interviews, followed by a two-day global expert consultation. During that consultation, participants aimed to define key competencies and curriculum content for effective preservice education programmes on the basis of their expertise, experiences and lessons learned through best practice; they also identified processes and practices needed to implement this work and advised WHO on how best to support implementation. Overall, the advice from that consultation was to develop a guide to pre-service education that would be evidence-based, globally relevant and adaptable, practical and accessible, and would be developed in collaboration with multiple stakeholders such as government institutions, professional organizations and the students themselves. The ongoing work in developing this guide has adopted a competency-based approach. Dr Gray shared the key competencies identified through this work which - in addition to including assessment, management and the provision of psychosocial support, follow-up and referral – also included enacting foundational support, providing rights-based care and engaging in self-care. Finally, he explained that while all these competencies are essential for medical doctors and nurses, the attitudes, knowledge and skills required of each may vary between professionals.

Dr Dzmitry Krupchanka of WHO's Department of Mental Health and Substance Use introduced recent estimates of the prevalence of people living with alcohol use disorders and drug use disorders. Existing evidence reveals the overall



unacceptably high burden linked to these conditions, as well as the strong bidirectional association between these conditions, mental health disorders and physical health. This shows the importance of ensuring that all medical doctors, across specialties and areas of work, have the necessary knowledge, skills and attitudes to provide care and support to people with disorders due to substance use and addictive behaviours. This is further highlighted by the very low contact coverage for people with SUD/AB seen in many countries, which results in a large majority of people with SUD/AB receiving not even minimally adequate treatment. The significant gap in the availability of a specialized mental health workforce around the world worsens this situation, which is even worse in low- and middleincome countries. Additionally, even when a specialized workforce is available, there is no matched availability of the necessary postgraduate education and training that would allow this workforce to provide adequate care to people with SUD/AB. This situation is further exacerbated by the significant heterogeneity of training programmes, sometimes even within the same country. Some of these programmes offer no practical experience or pay little attention to psychosocial interventions, and some do not even include substance use or addiction within the curriculum. Further, challenges include not only the lack of a specialized workforce to provide the necessary education and training but also the lack of clinical sites where skills can be practised. Nevertheless, postgraduate education in SUD/AB is available in a growing number of countries. When delivered properly, this training enables learners to demonstrate positive attitudes and less stigma and to engage confidently with people living with SUD/AB.

Dr Rodrigo Ramalho of the Network of Early Career Professionals working in the area of Addiction Medicine (NECPAM) presented an overview of training delivery (levels, methods, settings and providers) of SUD/AB. Focusing



on the current landscape, Dr Ramalho drew attention to available training opportunities for medical doctors in addiction medicine, based on work coordinated and supported by WHO and prepared in collaboration with members of NECPAM. This work has explored available literature that discusses training opportunities in addiction medicine for medical doctors, complemented by contributions from medical doctors in all WHO regions about national addiction training programmes available to medical doctors in their countries. Most postgraduate education and training tend to concentrate heavily on the professional development of psychiatrists, with other residency training programmes much less commonly including a SUD/AB component in the curriculum. More specialized addiction training programmes - e.g. in addiction medicine and addiction psychiatry - are sometimes also available, although these are not always accompanied by the structures required to accredit and recognize them as specialties. These programmes, which usually deliver their education and training in person and through didactic lectures and clinically supervised work, are often delivered exclusively in larger urban areas where the universities or main hospitals are located. At the same time, the programmes are not normally delivered by certified addiction medicine specialists because of the persistent scarcity of specialists as trainers globally.

2.2. Current practices: examples from participating countries

During the first two days of the meeting, experts from different countries discussed the impact of current practices in postgraduate education and training of medical doctors on the prevention and management of health conditions due to substance use and addictive behaviours in their countries. For this purpose, participants were provided with a template outlining a potential structure for their presentations. The template proposed the inclusion of an overview of the historical development of the postgraduate education and training, current practices, levels of modalities of education and training, discussion of how the education and training are delivered, and a description of what is included in this education and training.

Professor Xuyi Wang of the Mental Health Institute, Second Xiangya Hospital of Central South University, China, presented an overview of medical education in China, Chinese medical school postgraduate education and



psychoactive substance use in China. After five years of undergraduate education and training, medical doctors in China have access to a three-year standardized graduate medical education programme. However, there is no unified national addiction training plan or standard for postgraduate education of medical doctors in substance use disorders. Addiction-related training is available to psychiatry, neurology and general practice residents; however, it is mainly part of psychiatry residency programmes and is delivered via theoretical courses and clinical exposure under direct supervision. Some medical schools also offer specializations in addiction psychiatry and addiction medicine but these are not yet formally registered as specialties. Other postgraduate programmes range from certificates and fellowships to Master's degrees and PhDs. All training is organized on-site, with significant differences across the country. Despite these programmes, training needs remain unmet – particularly in prevention, community-based care and advocacy. At the same time, most addiction-related training is led by general psychiatrists, and professionals specialized in addiction medicine remain a scarce resource.

Professor John Saunders from the National Centre for Youth Substance Use Research, University of Queensland, Australia, described medical education and training on addictive disorders in Australia. Following an overview of the



history of medical education on addictive disorders in Australia, Professor Saunders explained that postgraduate training in addiction medicine and addiction psychiatry is provided in Australia (and New Zealand) at accredited training sites with designated supervisors, primarily in major cities. The Royal Australian College of General Practitioners, through a special interest group, offers resources focused on maintaining broad generalist skills for general practitioners - the centrepiece of primary health care in Australia and the gateway to specialist services. Postgraduate education and training are competencybased, and teaching methods, assessment practices, learning experiences and overall goals are aligned with the competencies. In the areas of addiction medicine and addiction psychiatry, key competencies include team leadership, communication with patients, addiction medicine assessment and treatment planning, consultation liaison and quality improvement. The speaker also gave a summary of learning, teaching and assessment programmes used in advanced training in addiction medicine. Continuing professional development efforts, which are mandatory for all registered medical practitioners in Australia, was described. It was noted that continuing professional development in addiction medicine is not mandatory for persons who do not declare it as a specialty.

Professor Lívia Milena Barbosa

de Deus e Méllo, General Coordinator of Strategic Health Education Actions, Ministry of Health of Brazil, provided background on the Brazilian national health system and its principles, guidelines and



historical context, including a description of Brazil's reform of health care in 1988 and the psychiatric reform of 2001. The reorientation of the health-care model emphasized the importance of primary health care. The new approach led to the development of family health teams and a network that includes community-based mental health centres (the cornerstone of the community-based mental health network), street outreach teams (focused on homeless persons) and community-based residential services (designed to support the health centres). Professor Mello also described the types of postgraduate courses for medical doctors in Brazil, as well as the laws and regulations governing these courses and the institutions that plan and accredit them. Medical education on SUDs offered at a postgraduate level is focused on residencies in psychiatry and in family and community medicine. This training is provided in a variety of settings and includes theory and clinical practice under direct supervision.

Dr Akemat Pawirowiyono from

the Directorate of Health Work Force Provision, Minister of Health, Indonesia, outlined the development of postgraduate education of medical doctors in addiction medicine, which includes a short course on



addiction medicine, a Master's course in public health with a specialization in addiction, and a sub-specialist programme in addiction psychiatry since 2017. Graduates from this sub-specialty, which runs through two years and is accredited, should demonstrate mastery of a set of general (e.g. professionalism, ethics, effective communication, introspection) and specific (e.g. critical thinking in aspects of managing cases of mental disorders in populations with addiction problems) competency areas. Dr Akemat also presented an overview of Indonesia's ongoing health system transformation. As part of this transformation, efforts are being made to enhance the availability, quality and distribution of health workers in the country, with a special focus on areas that lack a specialized workforce (including plans to expand training in addiction psychiatry). Dr Akemat highlighted that, at the current rate of graduation from the sub-specialty addiction psychiatry programme, it will take approximately 33 years to meet the current needs of the country.

Dr Oleg Yussopov from the Monitoring Centre on Alcohol and Drugs, Kazakhstan, presented an overview of the history of postgraduate education in mental health and addiction. Mental health and addiction services were separate



in the past but have now been merged. In Kazakhstan, medical universities and scientific institutes licensed for postgraduate education are entitled to develop their residency curricula independently. The curricula are competency-based, regularly updated and certified by the Ministry of Science and Higher Education and the Ministry of Health (Department of Science and Human Resources) according to the State Obligatory Standards for Higher and Postgraduate Education. Employers and stakeholders from related sectors are also involved in the process. Addiction care in the country is led mainly by psychiatrists, with psychiatry residency training provided at various accredited centres around the country. In general, medical doctors require additional training every five years as part of the certification process. As residency is a prerequisite for enrolment in a PhD programme, residents are required to participate in scientific projects and write articles for publications. Addiction-related additional training for the general medical workforce, who lack access to addiction-related training programmes at national level, is provided in collaboration with international organizations.

Diana López Gómez of Mexico's

National Commission of Mental Health & Addiction gave an overview of the postgraduate courses on SUDs for physicians in Mexico. In the past, these courses focused on theoretical issues and included a few



classes that mainly focused on severe presentations. However, by the end of the 1990s there was an upward trend in the provision of addiction-related education and training. This then included clinical practice in specialized services and a postgraduate course in addiction management for psychiatry specialists which led in 2000 to the first generation of two psychiatrists with this specialty. This remains the only postgraduate course available to psychiatrists in the country. Other postgraduate courses open to the general health workforce, including general practitioners, are limited and may not include clinical practice. Courses are mainly focused on continuing medical education, although they also include Master's and PhD programmes which emphasize research and lack a clinical focus. The country does not have a regulatory system for licences or accreditation or specific prescribed competencies for the treatment of SUDs by physicians. As a result, the country faces a significant gap in addiction-related training for the medical workforce.

Dr Otgonchimeg Batbaatar

from the Department of Human Resource Development, Centre for Health Development in Mongolia, presented an overview of Mongolia's laws and regulations in the field. Dr Batbaatar also discussed



existing human resources in Mongolia. Although there is a variety of professionals providing support in this area – including nurses, psychotherapists, social workers and psychologists – there is still a further need for medical specialists (e.g. psychiatrists and addictologists) particularly in non-urban areas. Addictologists are medical doctors who have pursued an additional training programme, first approved in 2011, which is licensed and led by the Centre for Health Development (Ministry of Health). A ministerial order that was issued in the country in 2014 listed mental health disorders that should receive care at a primary health care level and included disorders due to the use of alcohol, tobacco and other drugs. The primary health sector is expected to engage in preventive measures, as well as the provision of treatment and support to people with conditions related to substance use. The secondary health sector is expected to provide more specialized care, including hospital services, and works in liaison with the National Centre for Mental Health or the Addictology Treatment Centre.

Professor Muhammed Iqbal

Afridi of the Jinnah Sindh Medical University, Karachi, Pakistan, provided an overview of the country's context. Pakistan is one of the most populous countries in the world. Professor Afridi outlined



Pakistan's current situation with regard to SUDs, including the significant gap between the population's needs and the availability of mental health and addiction specialists and services. The country faces various challenges in postgraduate medical education - including resource constraints, faculty shortages, and a curriculum that remains non-responsive to the evolving needs of the population in the area of substance use. Professor Afridi discussed the recent integration of the Integrated protocols for the treatment of drug use disorders in Pakistan and the National standards for the treatment of substance use disorders in Pakistan, both of which were developed in collaboration with international organizations (the United Nations Office on Drugs and Crime [UNODC] and WHO). There are also ongoing reforms in the prison system that are focused on prevention and rehabilitation. Some additional courses to which medical doctors have access are offered by international organizations. However, these courses are not regulated at local level and do not lead to recognized specialties. Psychiatry training in Pakistan covers some aspects of

substance use but there is still a need for further development of competencies related to this field. As a result, the country continues to face an urgent need for specialized training in order to be able to provide holistic care and have a significant public health impact. Currently, however, there is a significant gap in terms of prevention and health promotion.

Dr Ma. Teresa C. Iñigo, from the Department of Health, Philippines, began by providing contextual information about the country, including a description of the prevalence of substance use. Dr Iñigo referred to the Comprehensive



Dangerous Drugs Act of 2002 which described how all inpatient substance use-related treatment should be court-mandated, gave the Department of Health the responsibility for developing policies, guidelines, and training and accreditation standards for drug treatment and rehabilitation, and dictated that only physicians accredited by the Department of Health can evaluate the presence of SUD - which in turn would then trigger the court-mandated treatment when necessary. Physicians accredited by the Department of Health are trained, certified and authorized to conduct "drug dependency examinations" after completing a basic training course for physicians on the assessment and management of drug dependence. Generally, addictionrelated postgraduate training in the country has included training in residency programmes - particularly those in psychiatry, internal medicine, family medicine, fellowship programmes, continuing professional development and certification programmes. It also includes the Postgraduate Division of Addiction Medicine of the University of the Philippines, approved by the Postgraduate Institute of Medicine and the Philippine College of Addiction Medicine which is an affiliate society of the Philippine Medical Association and an accrediting body for physicians involved in addiction medicine. However, there remains an ongoing need for standardized, evidence-based training in the prevention and management of SUD/AB to help meet the population's needs.

Associate Professor Goodman Sibeko of the University of Cape Town, South Africa, first summarized SUDrelated undergraduate and postgraduate education and training, focusing on the training of psychiatrists. This training is



provided in person and through online lectures, clinical supervision and other approaches. The training covers a wide range of competencies integrated within general psychiatry training, although there are ongoing efforts to include an addiction-focused track within this training. Family physicians are also exposed to addiction-related learning outcomes – mostly workplace-related – in primary care, emergency care and community-based services, when available. There is also a postgraduate diploma in addiction care which is an interdisciplinary two-year degree course that targets psychiatrists and medical doctors in general as well as other healthcare professions. The two universities that provide this programme - the University of Cape Town and Stellenbosch University – also provide psychiatrists with an MPhil programme in addiction psychiatry and a sub-speciality certificate in addiction psychiatry. Additionally, there are various stand-alone modules, short courses, continuing professional development opportunities and workshops. Although addiction psychiatry is currently an accredited specialty, there is still a need to incentivize professionals to follow this training path.

Professor Rakesh Lal, from the National Drug Dependence Treatment Centre, India, presented an overview of the extent of substance use in the country, highlighting the treatment gap and the need to make treatment available,



accessible, affordable and acceptable. Professor Lal then focused on psychiatry training for medical doctors, discussing prerequisites for joining the programme, general objectives and components of the curriculum, and clinical rotations within the programme which includes a minimum of three months in neurology and addiction psychiatry. Topics related to addiction are mainly focused on substance use (including tobacco, alcohol, opioids and cannabis) which are taught through a variety of teaching modalities.

Dr John Kelly, from the Massachusetts General Hospital Recovery Research Institute, presented an overview of the current state of addiction training in the United States of America. He described the history of this training, including



the recognition of addiction psychiatry as a specialty by the American Board of Medical Specialties in 1991 and Addiction Medicine in 2016. Dr Kelly then addressed ongoing concerns in the country with regard to alcohol and opioid use with a growing number of drug-involved overdose deaths, signalling the significant unmet medical need to address highly prevalent SUDs, particularly in rural areas. At the same time, there is a clear gap in training. For example, psychiatric training guidelines require only 2 % of psychiatry residency to be focused on addiction education and training, with SUD-specific instruction not being required at all levels of medical training. This training gap is further highlighted by the low number of universities that offer addiction courses within their programmes. Nevertheless, addiction medicine and addiction psychiatry fellowships accredited by the American Council for Graduate Medical Education are available in the country, as well as a pain medicine subspecialty. A variety of relevant organizations also focus on addiction - including the American Academy of Addiction Psychiatry, the Association for Multidisciplinary Education and Research in Substance Use and Addiction, and the American Society of Addiction Medicine - all of which provide additional education and training resources for medical doctors and health professionals.

Professor Julia Sinclair, from the University of Southampton, United Kingdom of Great Britain and Northern Ireland, provided some historical context to addiction-related postgraduate training in the United Kingdom, including the foundation of the



addiction faculty within the Royal College of Psychiatry. Professor Sinclair discussed a national project of 2008 focused on undergraduate competencies in SUDs across the curriculum, which in turn highlighted a similar need at postgraduate level across the medical and surgical postgraduate curricula. Professor Sinclair then addressed the importance of ensuring the acquisition of competencies at generalist, intermediate and specialist levels for the provision of quality care to people with SUDs, which has been agreed with the relevant royal colleges (responsible for postgraduate training). However, to ensure that these competencies are part of the training and assessment process, there is a need for addiction specialists to provide the clinical leadership and to drive the implementation of the training policies. Positive recent developments (2022) are the changes to the psychiatry training curriculum which now mandates that all psychiatry trainees have to undertake at least two assessments in addictions to help them develop the necessary knowledge, skills and attitudes to provide quality care. There are also ongoing efforts to develop a credential in addiction psychiatry for consultants who wish to gain additional competencies after they have completed their training.

Dr Victor Makanjuola of the University of Ibadan, Nigeria, presented an overview of postgraduate medical education in substance use in Nigeria. Currently, this training takes place in residency programmes at various neuropsychiatric



hospitals and in the psychiatry departments in teaching hospitals around the country. The duration of this training varies from three months to several years,

depending on whether the trainee is part of a general programme or is seeking specialization in addiction psychiatry. Postgraduate education and training of medical doctors on substance use prevention and the management of health conditions due to substance use is provided by the Faculty of Psychiatry, National Postgraduate Medical College of Nigeria. While based in Nigeria, the West African College of Physicians offers membership to medical doctors in francophone countries and similarly offers education and training in the field. Both colleges offer competency-based training, with revision and updating of courses bringing together trainees from all centres and contributing to the further standardization of training programmes (which are ultimately regulated by the Federal Ministry of Health). There are also informal and ad hoc training programmes, often run in collaboration with international organizations. However, there remains a significant gap in the specialized workforce in the country as the existing specialized workforce often has to address other pressing mental health needs of the population it serves.

2.3. Activities of other organizations

Five organizations presented a diverse range of efforts towards enhancing education, training and clinical care in the field of SUD/AB. These were the World Psychiatric Association's Section on Addiction Psychiatry, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the International Society of Addiction Medicine (ISAM), the International Nurses Society on Addictions, and the Canadian Centre on Substance Use and Addiction. Efforts led by these organizations included ISAM's international certification examination, the universal nurses addiction curricula of the International Nurses Society on Addictions and the ongoing efforts of the Canadian Centre on Substance Use and Addiction to identify core competencies for physicians and prescribers working in addiction medicine in Canada. These efforts also included various education and training initiatives - such as the evidence-based online course for medical professionals of the World Psychiatric Association's Section on Addiction Psychiatry and the EMCDDA's summer and winter schools, along with the European Prevention Curriculum. These various efforts underscore the collective dedication of these organizations to advancing addiction medicine globally in the pursuit of improving care and outcomes for persons affected by SUD/AB.

Dr Marc N. Potenza, presidentelect of the International Society of Addiction Medicine (ISAM), gave an overview of ISAM, a global organization founded in 1999. ISAM seeks to promote the exchange of information and ideas about drug addiction



research, treatment and management. Along with its more than 20 affiliate societies and organizations, ISAM is working to advance education, training, clinical care and public health. As a global organization, ISAM runs activities and initiatives that bring together a worldwide network of experts and key stakeholders - such as the first online General Assembly of Addiction Medicine Societies and Associations, the Global Expert Network, and annual congresses and collaborative regional meetings. Other activities include ISAM bytes (a bimonthly news and information output), topical interest groups and committees, travel fellowships for earlycareer investigators, as well as ISAM NExT (new professionals, exploration, training and education) which was established as a committee for early-career addiction medicine professionals, and research activities such as a recent global survey that explored training needs among these early-career professionals. ISAM's work has highlighted a broad lack of access to training and mentorship opportunities. In this regard, ISAM leads educational and training initiatives, such as a leadership masterclass in training and education in addiction medicine, the development of textbooks and the international certification examination. The latter is offered during ISAM annual meetings and on specific dates online and has been completed by people from 25 countries.

Dr Charon Burda and Dr Carmel Clancy from the

International Nurses Society on Addictions (IntNSA) stressed the importance of educating nurses on their role in drug demand reduction and described the efforts led by International Nurses Society on Addictions on this front. In partnership with the Global Centre for Credentialing and Certification (GCCC), now part of the International Consortium of Universities in Drug Demand Reduction (ICUDDR), IntNSA has developed the first Global Addiction Nursing Competency





Framework. The project was established to support GCCC in the development of the first Global Credential for addiction nurses universally. Five major competency domains were identified, namely: 1) health promotion, prevention and outreach; 2) screening, triage and brief intervention and referral to services; 3) initial assessment and needs analyses; 4) ongoing biopsychosocial treatment planning and implementation interventions; and 5) professional nursing practice. Each domain addresses two levels of competency: level 1 for any nurse working in any environment, and level 2 for nurses working in the field of addiction and who will require more comprehensive formal training. Dr Clancy and Dr Burda described a separate project that they were independently undertaking which involves the development and piloting of the universal nurses addiction curricula (draft title: International certified addictions professional - registered nurse) which targets nurses globally and is developed in partnership with the Drug Advisory Program, the Colombo Plan, and is funded via the Bureau of International Narcotics and Law Enforcement Affairs. The speakers highlighted the crucial role that addiction nurses play globally in reversing the negative effects of alcohol and other drug use, as they work across the continuum of care, as well through advocacy and community support.

Professor Yatan Pal Singh Balhara from the World Psychiatric Association's Section on Addiction Psychiatry presented a course developed by that section for the association. The course aims to strengthen the evidence-based



management of SUD/AB. It is an online asynchronous course that targets medical doctors, is focused on clinical care, follows evidence-based recommendations and can be followed at each participant's pace. The course includes eight modules, with an initial introductory module offering learners an overview of the course, including sources of information. The next module offers an introduction to addictive disorders, including a description of the concepts of addiction and recovery. It focuses on assessing and diagnosing addictive disorders, including a description of different diagnostic categories and criteria. The following modules cover the pharmacological management of disorders due to the use of alcohol, opioids, nicotine, benzodiazepines, and other substances and addictive behaviours. The final module focuses on nonpharmacological interventions, including motivational interviewing and relapse prevention. This comprehensive course includes case vignettes and takes professionals through all the steps to manage addictive disorders. Professor Balhara also highlighted various other learning resources available to healthcare professionals, including Alcohol use disorders Online Learning (AlcOL) resources and courses on addictive behaviours.

Dr Marica Ferri, Head of Sector of the European Monitoring Centre for Drugs and Drug Addiction gave participants an introduction to the work of the EMCDDA, an agency of the European Union that has been carrying out training for several



decades - starting with national initiatives in collaboration with the agency in the 1990s. In 2011, the EMCDDA started its summer schools in Lisbon, Portugal, offering two weeks of training to professionals worldwide in critical addiction-related topics. In recent years, the organization has also started to run winter schools which, unlike those in summer, are delivered online. Each iteration of these courses has a different theme, and sessions within each iteration are dedicated to discussing these themes – e.g. gender-related issues and psychostimulants. The EMCDDA also runs training dedicated particularly to prevention. The European prevention curriculum (The EUPC), a curriculum adapted to the European context and now rolled out on demand, is accessible via the EMCDDA's online learning platform. The Agency developed an e-learning platform called PLATO currently hosting an online version to the EUPC but that will soon offer training for other areas like treatment, harm reduction and social reintegration. Given EMCDDA's current access to more resources thanks to its new mandate which will entail a new name: European Union Drugs Agency (EUDA), the organization aims to operate at a larger scale starting in 2024, including having new initiatives focused on capacity-building and training, which will also create opportunities to collaborate with other international organizations, including WHO.

Dr Alexander Caudarella, Chief Executive Officer of the Canadian Centre on Substance Use and Addiction, discussed the work of the Centre on identifying core competencies for physicians and prescribers working in addiction medicine. The Centre provides



national leadership and guidance to decision-makers in the area of substance use in Canada. The organization's work stems from the importance of standardizing quality care in the country, including the development of national standards for clinical practice and interpersonal approaches for physicians and prescribers. This will ensure that all prescribers see substance use care as part of universal practice and that those seeking support receive care that is nonstigmatizing and humanized. The overall goal is to ensure that all prescribers can provide the necessary support, given that people in need of care will seek this support from a variety of places within the health system. Ultimately, no door should be the wrong door. The identified competencies include technical and behavioural competencies. Technical competencies relate to understanding substance use, screening and assessment, referral and the provision of pharmacological and psychosocial interventions – all of which should be conducted with a focus on harm reduction and the ability to adapt to changing patterns in the field. Behavioural competencies include those that would enable prescribers to humanize care and practise compassion, empathy, humility and self-reflection.

3. Challenges and opportunities

On the second day of the meeting, participants formed three groups to discuss challenges and how to overcome them, as well opportunities and how to utilize them, drawing from their own experience at national level. The first group consisted of meeting participants from China, the second group included participants from India, Kazakhstan, Mongolia and Pakistan plus the participant from NECPAM, and the third group included participants from Brazil, Indonesia, Mexico, Philippines and South Africa plus the participant from ISAM.

When reporting the outcomes of these discussions, it was noted that *postgraduate education and training in* SUD/AB for the specialized and non-specialized medical workforce faces a myriad of challenges globally. A common challenge was the absence of a specialized workforce that could contribute to the provision of this education and training. Similarly, there were reports of the lack of a systematic approach to the process, with a lack of coordination among stakeholders, including government institutions, and a lack of institutionalized mechanisms to support postgraduate education of the medical workforce at national level. This situation often led to the *fragmentation of training programmes*, a lack of standardized quality criteria, a concentration of available education and training opportunities in highresourced areas such as large urban centres, and poor distribution of resources and capacity in educational settings country-wide. As a result, the system was often overloaded, which in turn contributed to overburdened professionals who may not be attracted to pursue further education and training, even if made available, in view of the stigma often associated with this field. The situation was often worsened by missing prevention initiatives and campaigns at national level. At the same time, it was highlighted that the high variability in health systems and national policies between countries often required, as a first step, the analysis of training and competency needs that, if addressed, could help meet the population's needs. This was an

element that was often overlooked or side-lined in favour of accessing internationally available resources which, while contributing to capacity-building and representing a clear opportunity to increase access to training, may not adequately address local needs.

Despite these challenges, various opportunities were also identified in the group discussions, particularly with regard to the importance of national-level and coordinated efforts between key stakeholders. For instance, opportunities mentioned were the (re) development or update of national policies that would boost further efforts in this area, the establishment or strengthening of professional and civil society organizations, and the key roles of advocacy and collaborative partnerships between governmental and nongovernmental institutions. Even if not currently available, the development of an addiction-medicine/ addiction-psychiatry specialties or sub-specialties was seen as an important opportunity, along with the demand to include SUD/AB curriculum units in all postgraduate education and training of the medical workforce. New developments in the field, including new advances in the prevention and management of SUD/AB, were also seen as opportunities. Nevertheless, the need for more research was recognized, and this further research could in turn prove an opportunity to strengthen national data collection on SUD/AB in order to inform education and training with locally created and relevant knowledge and research.

All groups put forward recommendations for next steps. A key recognized next step was the need to bring the meeting discussions back to the participants' respective countries. The possibility of establishing national task forces was also mentioned as a potential step forward. The key role of advocacy was also acknowledged and the participants highlighted the role of both governmental and nongovernmental institutions in this regard. The need for a competency-based framework informing further education and training curricula and requirements for practice was also highlighted.

WHO could play a substantial role in the development of a framework for postgraduate education in prevention and management of SUD/AB in collaboration with representatives from relevant national institutions. The framework may also help with integrating best practices into existing or future education and training programmes, setting up processes to recognize specialties or sub-specialties on addiction medicine, and advocating ways in which these programmes can best reach the wider medical workforce countrywide, ensuring their public health impact.

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4. Approaching core competencies

Presentations from **Dr Dzmitry Krupchanka** and **Dr Rodrigo Ramalho** focused on approaching core competencies for the postgraduate education and training of medical doctors in the prevention and management of substance use and addictive behaviours. Dr Krupchanka reminded participants of the principles of competency-based education, including its focus on learning and outcomes as the driving forces for curriculum development.

A presentation by Dr Ramalho highlighted existing needs which in turn could represent an initial point of consideration in the development of a competencybased framework. The presentation focused on the preliminary findings of a multi-country, online and anonymous survey coordinated and supported by WHO's Alcohol, Drugs and Addictive Behaviours team and prepared in collaboration with NECPAM members. The survey aimed to identify the current proficiency level and training needs of early-career doctors working in addiction medicine across several countries in different WHO regions. Participants in the survey at times reported a high sense of proficiency in regard to certain competencies, such as using an evidencebased approach in assessment, selecting appropriate screening/assessment tools, screening for risk of substance use problems, and providing general medical and social care to the patient. However, these same participants reported a strong or fair need for additional training in these same areas. At the same time, there were some competencies with a clear need for further training - such as using basic psychosocial strategies to support recovery, motivational interviewing techniques to support adherence, using group interventions effectively, managing medical emergencies, and managing overdose.

Dr Krupchanka introduced the idea of a WHO guide to inform the development of a competency-based

framework for the education of medical doctors in the prevention and treatment of SUD/AB. Initial preparatory steps in the direction of a guide had already been taken, including mapping and collating resources and expert consultations. Participants received a background paper showing the results of a scoping literature review on core competencies for medical doctors on prevention and management of disorders due to substance use and addictive behaviours that analysed existing SUD/ AB-related competency frameworks. The results of the work highlighted the diversity of approaches (analytic, synthetic, developmental) that could be adopted in the development of a competency-based framework. This included the possibility of matching the framework to various levels of care or different service roles or profiles and the different approaches that could be used in the grouping and categorizing of all identified core competencies, as well as the different levels of detail that could be adopted in the framework. The review identified five key domains of competencies that could inform the development of a competencybased framework of the specialized workforce. The five domains are: 1) practice; 2) professionalism; 3) learning and development; 4) management and leadership; and 5) prevention, community and advocacy. Each of these domains contains a set of competencies and practice activities which could potentially be included in the competency-based framework.

The first domain – practice – includes activities and competencies – e.g. assessment, diagnosis and treatment planning as activities; and personcentred, evidence-based and trauma-informed care as competencies-related to the interaction between the specialist and the person with SUD/AB and family members. The second domain – professionalism – includes activities and competencies that support SUD/ AB care delivery and the well-being of professionals (i.e. professional integrity, collaboration, safety, quality). The third domain – learning and development – includes activities and competencies related to the reflective practice and professional development of the specialist and of others. The fourth domain – management and leadership – includes activities and competencies relating to team leadership as well as service development and evaluation. This domain also includes participation in research and clinical governance activities. Finally, the fifth domain – prevention, community and advocacy – includes activities and competencies relating to prevention efforts, advocating the needs of the community, supporting community members to be empowered to access available resources, and contributing to longterm beneficial change.

Meeting participants also discussed the application of a core competency framework in the prevention and treatment of SUD/AB for the non-specialized workforce such as general practitioners, family medicine doctors, paediatricians, and doctors working with communicable and noncommunicable diseases - such as cardiologists, gastroenterologists or those treating infectious diseases. In view of the high prevalence and burden of SUD/AB, it is essential that adequate and quality care is available at different levels of the health system and within a broad scope of specialties (e.g. primary care, emergency medicine, obstetrics and gynaecology, hepatology, neonatal care), although most of these professionals do not have specialized training in SUD/ AB. In order to scale up care provision and encompass a larger portion of the affected population, it would be important to improve access to additional training in the management of SUD/AB. While the scope of the exact practice activities to be included in this framework will depend on factors such as the national health-care system and legislation, it would be important to have core competency frameworks for the non-specialized workforce in the prevention and treatment of SU/AB. The meeting noted that this could be approached in different ways.

5. Overview of technical discussions¹

It became evident during discussions that there is a pressing global need to enhance the capacity of the medical workforce to prevent and manage SUD/ AB. While it was acknowledged that undergraduate or pre-service education plays a crucial role in this process, postgraduate medical education is essential for preparing specialized professionals and ensuring up-to-date knowledge and skills for medical doctors across all specialties.

Because of the huge prevalence, burden and treatment gap related to SUD/AB, there is an urgent demand for a stronger workforce specialized in prevention and management. Where available, the local specialized workforce should act as a catalyst for further development at national level, promoting further education and training of the health workforce on SUD/AB across specialties and contributing to these efforts. If no local specialized workforce is available, the development of such a workforce may be addressed as a priority – a process which may in turn accelerate further local health workforce development.

However, despite rapid efforts to grow and develop a specialized workforce, it remains unlikely that a sole focus on the highly specialized personnel will help meet the overwhelming demand. Therefore, to secure the coverage and quality of care and to make a significant impact on population health, it is *equally imperative to enhance the capacity of the workforce that is not specialized in SUD/AB*. The local health workforce should have access to diverse programmes targeting professionals at all levels of specialization and care. These programmes should be available, accessible and appropriate to the needs of all medical doctors working throughout the country.

It is vital that all further education and training should promote the necessary knowledge, skills and attitudes to enable medical doctors to address the entire spectrum of harm associated with SUD/AB. However, as with a sole focus on the specialized workforce, providing medical doctors with access to education and training programmes focused only on the severe end of the spectrum would fail to meet the population's needs. These programmes should not fail to include addictive behaviours, as well as nicotine and alcohol.

As a first step at national level, it could prove helpful to map existing subnational, national and regional education and training programmes and their curricula. This would enable the identification of gaps where additional programmes may be needed, as well as where necessary training may already be provided and leveraged. The appropriate structures and regulations should be in place to ensure that this training is responsive to the population's needs and is of appropriate quality standards. These structures should include not only training institutions but also professional organizations and relevant government institutions involved in accreditation and certification.

National plans should be implemented to secure the availability, accessibility and adequacy of all further education and training. The workforce should also have access to incentives that would attract professionals to further upskilling. There should be clear employment opportunities with a match between the training and the health system structures. The training should also be aligned with national campaigns and initiatives. As such, their development requires the contribution of health-care providers, service managers and policymakers. Ideally, the process should include the active participation of people with lived experience who will help to further ensure the adequacy and responsiveness of the programmes.

The meeting unanimously agreed that all further education and training programmes should be competency-based, and *the set of competencies*

¹ This section contains the views of the participants and does not necessarily represent the decisions or the stated policy of the World Health Organization.

presented during the meeting should serve as a starting point to guide the development of a competencybased framework. This framework would help identify specific knowledge, skills and attitudes required to address SUD/AB needs effectively across all levels of care. The framework will help to target all efforts and resources towards the development of these specific competencies, will facilitate assessment and evaluation, and will ensure that health-care professionals are equipped to meet the population's needs. The goal of all these efforts should be to optimize the prevention and management of SUD/AB, thereby improving public health outcomes and promoting well-being nationally. International organizations such as WHO could play an important role in supporting these efforts – for instance, by producing an international guide and competency framework for SUD/AB, assisting with curriculum development, providing technical assistance, and delivering targeted support as needed.

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6. Summary and conclusions¹

6.1. Meeting recommendations

Following the presentations and technical discussions during the meeting, the following recommendations were put forward by participants:

1. Advocate for and support the development of a workforce specialized in SUD/AB

There is an urgent need to address shortages of specialized health workforce through actions at global, regional and national levels.

2. Advocate for and support strengthening of the capacity of the non-specialized workforce to address SUD/AB

While specialization is crucial, it is equally imperative to enhance the capacity of the workforce that is non-specialized in SUD/AB in order to ensure comprehensive coverage of SUD/AB prevention and management at different levels of the health system.

3. Promote competency-based postgraduate education and training in SUD/AB

It is essential to ensure sustainability of health workforce preparedness through postgraduate education in SUD/AB that is provided through a competency-based framework. Such a framework would inform curricula design to facilitate the development of the knowledge, skills and attitudes necessary to address SUD/AB-related harm at all levels of care. Education informed by the framework should be provided through different modalities of postgraduate education (e.g. psychiatric and other residency, in-service training, continuous education, certificates and fellowships for the health workforce).

4. Coordinated national initiatives

All key stakeholders – including training institutions, professional organizations and government institutions – should collaborate to establish systematic efforts and a coordinated approach that will foster consistency and synergy (e.g. by aligning national policies and campaigns, certification and registration processes, and clear employment opportunities and incentives). While national efforts could leverage support from international organizations such as WHO, they should ultimately aim to be driven and led locally. This would ensure that all initiatives are tailored to the specific needs and contexts of the country concerned. While international organizations can provide valuable support and expertise, the focus should remain on developing systematized, sustainable and locally driven education and training programmes.

5. Support from international organizations.

Participants recommended that WHO continue efforts to advance health workforce education in the area of substance use disorders and addictive behaviours, and that WHO should prepare a guide for the postgraduate education and training of medical doctors (specialized and non-specialized) on the prevention and management of disorders due to substance use and addictive behaviours.

6.2. Next steps

The meeting on postgraduate education and training of medical doctors on the prevention and management of disorders due to SUD/AB concluded with a consensus to set up an **informal technical working group** that will continue with the work and discussions begun at the meeting. This informal technical working group, which could include additional participants as necessary, will continue discussions about the necessary steps with regard to the development of competency-based education. The working group discussions will feed into **WHO's work on a guide for postgraduate education and training** and the country support activities that

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could be conducted in collaboration with WHO to support the implementation of the competency-based framework. The meeting discussed five domains of the framework which could also include a glossary, curriculum and other tools.

6.3. Conclusion

In conclusion, discussions and presentations held at the WHO meeting on the postgraduate education and training of medical doctors on prevention and management of SUD/AB underscored the urgent need to address shortages in the capacities of both the specialized and nonspecialized medical workforce to address SUD/AB effectively. A consensus was reached on the importance of adopting a competency-based education framework covering prevention, harm reduction, treatment and care. The meeting also noted the importance of establishing collaborative networks between training institutions, government institutions, professional organizations, and other key stakeholders such as people with lived experience. These networks will facilitate synergy in efforts towards developing institutionalized and formalized training programmes with appropriate structures and regulations to ensure the successful integration of trained professionals in the health system, bridging the gap between training and practice. Ultimately, all efforts should start with a focus on addressing existing population health needs and should aim to have a significant impact on population health outcomes. The meeting welcomed and endorsed WHO's efforts to advance health workforce education on the prevention and management of disorders due to substance use and addictive behaviours.

Annex 1. Agenda of the meeting

Time	Thursday, 1 February 2024 Session
09:00-09:30	 Opening Ben Lv (President of the Second Xiangya Hospital of Central South University) Vladimir Poznyak (Unit Head, Alcohol, Drugs and Addictive Behaviours, Department of Mental Health and Substance Use, WHO) Minghua Wu (Executive Vice Dean of Xiangya School of Medicine) Yebin Cao (Director of the International Cooperation Division of the Hunan Provincial Health Commission) Wei Hao (Director of WHO Collaborating Centre)
09:30-09:35	Introduction of participants
9:35–9:45	 Background, objectives and procedures of the meeting Vladimir Poznyak (WHO) ⊘15 min
9:50–11:00 (© 70 min)	 Session I: Setting the scene WHO Global competency and outcomes framework for UHC Siobhan Fitzpatrick (WHO) ①10 min WHO Guide to pre-service education in mental health Brandon Gray (WHO) ①10 min Workforce development in the area of substance use and addictive behaviours Dzmitry Krupchanka (WHO) ②10 min Overview of training delivery (levels, methods, settings and providers) on substance use and addictive behaviours Rodrigo Ramalho (NECPAM) ③10 min Discussion ③30 min
11:00-11:30	Break
11:30-13:00 (ⓒ 90 min)	 Session II: Current practices in postgraduate education and training of medical doctors on prevention and management of health conditions due to substance use and addictive behaviours: examples from countries Xuyi Wang (China) ③15 min John Saunders (Australia) ③15 min Lívia Milena Barbosa de Deus e Méllo (Brazil) ③15 min Rakesh Lal (India) ④15 min Discussion ④15 min
13:00-14:00	Lunch
14:00–15:30 (♥ 90 min)	 Session II (continued): Current practices in postgraduate education and training of medical doctors on prevention and management of health conditions due to substance use and addictive behaviours: examples from countries Akemat Pawirowiyono (Indonesia) ©15 min Oleg Yussopov (Kazakhstan) ©15 min Diana Lopez Gomez (Mexico) ©15 min Borkhuu Turtogtokh (Mongolia) ©15 min Muhammad Iqbal Afridi (Pakistan) ©15 min Discussion ©15 min
15:30-16:00	Break
16:00−17:30 (⊘ 90 min)	 Session II (continued): Current practices in postgraduate education and training of medical doctors on prevention and management of health conditions due to substance use and addictive behaviours: examples from countries Ma. Teresa C. Iñigo (Philippines) ©15 min Victor A. Makanjuola (Nigeria) ©15 min Goodman Sibeko (South Africa) ©15 min John F. Kelly (USA) ©15 min Julia Sinclair (United Kingdom) ©15 min Discussion ©15 min

Friday, 2 February 2024 Time Session 09:00-09:15 Summary of deliberations on the first day of the meeting • Dzmitry Krupchanka (WHO)- 15 min 9:15-11:00 Session III: Core competencies of medical doctors on prevention and management of health conditions due to (**O**105 min) substance use and addictive behaviours at different levels of health care Training needs of early career professionals in the area of addiction medicine Rodrigo Ramalho (NECPAM) @15 min · Competencies and practice activities of medical doctors specialized in addiction medicine Dzmitry Krupchanka (WHO) 🙆 30 min 11:00-11:30 Break Session III (continued): Core competencies of medical doctors on prevention and management of health conditions due 11:30-13:00 (**O** 90 min) to substance use and addictive behaviours at different levels of health care · Competencies for prescribers providing substance use care Alexander Caudarella (Canada) 🙆 15 min Competencies and practice activities of medical doctors non-specialized in addiction medicine Dzmitry Krupchanka (WHO) 015 min Discussion 60 60 min 13:00-14:00 Lunch 14:00-15:30 Group work I: Postgraduate education and training of medical doctors on substance use and addictive behaviours in (**O** 90 min) settings with different levels of resources: scope, typology, modalities, implementation, procedural dimensions 15:30-16:00 Break 16:00-17:30 Session IV: Postgraduate education of health professionals on substance use and addictive behaviours in activities of (🕑 90 min) other organizations Mark Potenza (ISAM) ©15 min Marica Ferri (EMCDDA) ©15 min Carmel Clancy and Charon Burda (International Nurses Society on Addictions) @15 min

Discussion 🥝 30 min

Saturday, 3 February 2024

lime	Session
09:00-9:20	Summary of deliberations on the second day • Dzmitry Krupchanka (WHO) ⊘15 min
9:20–10.00 (🌝 40 min)	Session V: International collaboration on further development of postgraduate education of health professionals on substance use and addictive behaviors – the role of WHO
10:00–11:00 (ⓒ 60 min)	 Session VI: A roadmap for WHO actions on development of health workforces specialized in prevention and management of disorders due to substance use and addictive behaviours Vladimir Poznyak (WHO) ©10 min Discussion © 50 min
11:00-11:30	Break
11:30–12.30	 Session VI (continued): A roadmap for WHO actions on development of health workforces specialized in prevention and management of disorders due to substance use and addictive behaviours Vladimir Poznyak (WHO) ©10 min Discussion © 50 min

Annex 2. List of participants

Country representatives

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Mental Health Institute Second Xiangya Hospital of Central South University China Postgraduate education and training of medical doctors on prevention and management of disorders due to substance use and addictive behaviours Meeting report • Changsha, China, 1–3 February 2024

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