Approximately one-third of the developing world's population is not able to regularly access essential medicines. The World Health Organization (WHO) defines essential medicines as “those that satisfy the priority health needs of the population and are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality, and at a price the individual and community can afford. Essential medicines are selected with due regard to disease prevalence, evidence on efficacy and safety, and comparative cost-effectiveness.” For many low- and middle-income countries, improving access to appropriate essential medicines can be a tremendous challenge and a critical barrier to scaling up quality care for mental, neurological, and substance use (MNS) disorders.

In January 2014, the Institute of Medicine’s Forum on Neuroscience and Nervous System Disorders and the Board on Global Health convened a workshop with the goal of bringing together key stakeholders to discuss opportunities for achieving long-term affordable access to medicines for MNS disorders in sub-Saharan Africa (SSA). Workshop speakers and individual participants were invited to explore challenges and opportunities for improving access to essential medicines. In addition, participants examined successful activities that increased access to essential medicines both within SSA and in other developing countries.

Defining the Challenges

Workshop participants explored potential opportunities for improving access to medicines in four challenge areas: (1) insufficient demand, (2) inappropriate selection, (3) inadequate supply chains, and (4) high pricing/poor financing. Experts presented their individual definitions of each challenge area.

1. **Insufficient demand**: Oye Gureje, professor in the department of psychiatry at the University of Ibadan in Nigeria, noted that demand for medications to treat MNS disorders in SSA is driven by several often interrelated factors. Factors that influence help seeking for MNS disorders, their recognition and adequacy of treatment, and the dynamics of supply are important in any consideration of how to improve demand.

2. **Inappropriate selection**: Selection of essential medicines for MNS disorders poses several specific challenges, said Hans Høgerzeil, professor of global health at Groningen University in the Netherlands and former director of essential medicines and pharmaceutical polices at WHO. First, the effectiveness of many medicines for MNS disorders cannot easily be established, as treatment effects are difficult to assess. Second, the cost-effectiveness of most MNS treatments is not very well established, especially for newly developed medicines. Finally, many psychiatrists prefer to use a range of different medicines in the same therapeutic category in order to adapt to individual treatment response and patient preferences. Høgerzeil notes that contrary to short-term treatments, long-term medications are a challenge to the supply system and pose a real threat of cata-
strophic health expenditure to the patient. He stated that a rights-based approach, focusing on a small range of proven cost-effective medicines, is the best guarantee for equitable access to medical treatment of MNS disorders.

3. **Ineffective supply chains**: Improved access to medicines for MNS disorders requires a well-functioning supply chain that delivers these medicines to the end population affordably, reliably, robustly, and in an equitable manner, said Prashant Yadav, director of the Healthcare Research Initiative at the William Davidson Institute of the University of Michigan. Numerous challenges exist in the supply chains for MNS medicines, including (1) low levels of current use, often due to lack of provider and patient awareness, leading many supply chain actors to believe the true demand is low; (2) the fact that MNS medicines are currently offered only in selected secondary and tertiary health facilities, requiring long travel times for patients without a guarantee of access; and (3) the difficulty of carrying out procurement, storage, and distribution of the product from the point of production to the point of consumption while maintaining high quality and product integrity and minimizing diversion or misuse.

4. **High pricing and poor financing**: Margaret Ewen, a pharmacist in the global office of Health Action International, noted that relatively little is known about the price, availability, and affordability of medicines to treat mental health conditions in SSA countries. Where there are data, medicine availability is poor, especially in the public sector, forcing patients to purchase in the private sector where prices are unaffordable. Daniel Chisholm, health economist in the Department of Mental Health and Substance Abuse at WHO, elaborated that the appropriate provision of essential medicines is being held back by a lack of affordability and as well as by a lack of service access. Although most essential medicines for MNS disorders are inherently cheap (at the point of production), a combination of import tariffs, sales taxes, markups, and other charges raises the cost to end users by a considerable—and, for the poor, an unmanageable—degree. Chisholm went on to say that in populations with low or nonexistent health insurance/financial protection, out-of-pocket spending on medicines for MNS disorders and other costs of care represents a critical barrier to access as well as a potential source of impoverishment.

### Opportunities for Improving Access to Essential Medicines for MNS Disorders

Throughout the workshop, individual participants discussed a number of potential opportunities to improve access to essential medicines for MNS disorders related to the four challenge areas.

#### Cross-Cutting Opportunities

- **Commitment and support**: Several participants noted that commitment and support from key stakeholders in government, industry, academia, nongovernmental organizations (NGOs), and patients could help raise MNS disorders as a priority focus in health care. Many participants noted that identifying high-profile champions to help advance support for improved care, while breaking down stigmas associated with MNS disorders, could be beneficial.
- **Partnerships**: Many participants noted that improving access to essential medicines might benefit from strong partnerships across all levels of the health care system, organizations, and disease areas. Critical partnerships highlighted by various participants included: WHO; ministries of health, finance, and trade; the World Bank; professional organizations; pharmaceutical companies; employers; and NGOs.
- **Data**: Several participants noted a need for epidemiological and surveillance data on the prevalence of MNS disorders within countries to have a better understanding of the demand for access to essential medicines. In addition, a few participants noted that market and supply chain analyses may help stakeholders identify barriers within the system.
- **Training**: The need for trained human resources personnel, from distributors to providers, was noted by many participants. A few participants stated that training prescribers and local dispensary personnel to comply with regulations regarding the quality of medicines is also important.

#### Challenge Area Opportunities

- **Insufficient demand**: Several participants noted that low demand can be linked to the combination of low perceived need for MNS-specific medical care and inadequate training and education of health care providers and managers about MNS disorders. Implementation of WHO’s Mental Health Gap Action Programme (mhGAP)
intervention guide and training modules was suggested by several participants as a potential mechanism to address this barrier and increase demand for essential medicines by health care providers. Several participants noted the development of national task forces composed of key stakeholders, including government officials, to advocate for and develop training and education plans for MNS disorders. Integration of patient- and family-oriented training into existing community-based programs to develop an informed population was suggested by a few participants as a potential mechanism to increase demand for medicines. In addition, many participants suggested that greater access to prescribers and increased demand might be an outcome of increasing the ability of all levels of providers to prescribe medications.

- **Inappropriate selection:** A large number of participants suggested the utility of developing coherent and comprehensive national strategies for the treatment and care of MNS disorders. A few participants noted that selection of essential medicines at a national level and adherence to WHO guidelines might reduce inconsistencies in the selection and procurement of medicines for MNS disorders. In addition, many participants noted that increased inclusion of medicines that promote adherence might be beneficial, along with greater accommodation of a reasonable range of provider and patient medication preferences. Several participants stressed the importance of training and continuing education about MNS treatment guidelines to include key individuals and organizations involved with selection and procurement of essential medicines.

- **Ineffective supply chains:** Many participants suggested that effective supply chains could result in better forecasting of need and reduced stock-outs or over-stocking of medicines. Several participants suggested that development of an information network systems approach might improve availability of data. Increased training on data collection and analysis was suggested by a few participants as a mechanism for improving forecasting and reducing stock-outs and over-stocking. In addition to increased training, several participants indicated that greater allocation of human resources for supply chains and inclusion of supply chain workers in determining needs for health care systems might help improve access across the supply chain. It was suggested by a participant that learning and leveraging information systems of other vertical supply chain programs might be a useful approach. Many participants noted that the distribution process could be streamlined through reduction in the number of steps between central warehouses and patient distribution centers, improved transportation, better communication centers, improved transportation, better communication centers, and increased funds for national medicine supply agencies.

- **High pricing/poor financing:** Many participants suggested that development of evidence-based policies and increased resource allocation by governments, NGOs, and manufacturers might increase demand and, subsequently, drive down prices. A few participants noted that markets in SSA might be unattractive to manufacturers but that increasing competition and lowering barriers for entry might lead to decreased prices. Inclusion of MNS medicines on country-specific essential medicines lists and health insurance schemes, as suggested by many participants, might increase coverage for these medicines and, again, lower prices for patients. Several participants indicated that streamlined procurement of medicines at efficient prices and passing along low procurement prices to patients might lead to a decrease in the overall unit cost of medicines.

### Considerations for Moving Forward

Throughout the workshop, individual participants discussed the practicalities of drawing attention to and beginning to take action on the four challenge areas of insufficient demand, inappropriate selection, ineffective supply chains, and high pricing and poor financing. Hans Hogerzeil reiterated that SSA is made up of regions, countries, and people of many different languages and cultures, and there is no one-size-fits-all approach for access to essential medicines for MNS disorders. He emphasized country-based solutions based on the unique challenges in each country. Daniel Chisholm noted that the strategies discussed throughout the workshop are really a menu of potential options for countries to consider based on their current systems and situation. A participant noted that countries might be able to better strategize potential solutions if best practices and examples of successful access to medicines programs were disseminated widely.

Although the focus of the workshop was on potential mechanisms for improving access to medicines to treat MNS disorders, individual workshop participants discussed the broader challenge of increasing
access to MNS treatment and care. Many workshop participants noted that the general lack of attention to these disorders was a central barrier across all four challenge areas, and the need to encourage countries to address MNS disorders in the context of their overall health needs and national programs was emphasized by many participants. They stressed that access to medicines to treat MNS disorders can be integrated into existing activities and health care systems. In resource-limited environments, a few participants noted the importance of highlighting the return on investment for health in general, not just mental and neurological health. Addressing supply chain issues, for example, can impact access to medicines for many conditions. According to several participants, challenges associated with access to medicines are not specific to MNS disorders, but working to address MNS disorders could be positioned in policy discussions as an entry point for making changes in the country to address broader system issues.

In addition, several participants discussed demonstration projects that could be developed in partnership with government agencies to assess the feasibility of improving access to medicines. These demonstration projects could be implemented at the local level to achieve tangible results and provide evidence to support scale-up efforts. To be most effective, several participants suggested a need to focus on a few medicines or disorders for these demonstration projects. The evidence collected could empower champions to drive demand and push for systemic change, one participant noted. Champions can be public figures that draw attention to MNS disorders and help reduce stigma, clinicians in the field who have firsthand experience with the needs of patients and the treatment gap, or others in the country or community engaged in the demonstration projects. Several participants reiterated that continuous monitoring of such projects is important for sustainability to assure officials that investments have been spent wisely and resulted in reduced costs, improved health outcomes, and/or reduced burden of disease.

Lastly, many participants discussed how partnerships with key stakeholders are essential to help foster action. Multiple roles for key stakeholders were suggested, such as creating consortia for guidelines and best practices, education and credentialing aligned with the use of guidelines, and incorporating tools and strategies from workshop proceedings into mhGAP programs. It was suggested that the annual mhGAP forum, which brings together governments, international NGOs, researchers, and other stakeholders, could be one venue to reach out to the target audience for many of the concepts discussed during the workshop. Individual participants were also eager to see MNS disorder outcomes linked to the United Nations Millenium Development Goals.

Although it was acknowledged that the challenges associated with improving access to essential medicines for MNS disorders have been discussed for decades, many participants believe there is an opportunity now to conduct an all-inclusive exploration and develop system-wide solutions to the barriers impacting access to MNS medicines. The strategies discussed by many workshop participants may help countries conduct individual assessments of their needs. The potential opportunities and strategies to improve demand, selection, supply chains, and pricing and finance rely heavily on increasing public and political awareness of, and provider training in, MNS disorders. Finally, applying global knowledge from other chronic disease areas, sharing best practices that can be adapted to a country’s policies, and leveraging existing systems may offer additional insights on potential solutions. As potential next steps, a few participants discussed the value of developing a toolkit that countries could use to assess their individual country needs and inform their decisions and system improvements. Several participants also reiterated the role and potential value of small, focused demonstration projects in developing the evidence base to support incremental and sustainable systemic change at a national level. 😊