Global Services, Systems, and Policy

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Introduction

Public policymaking begins with an official acknowledgment of an identified issue or concern (Hanson, 2014). This begins a series of practical actions to resolve the issue; an issue is identified and a multilayered process begins to seek a solution that attempts to address problems at an individual (micro)level as well as at the meso- and macro-levels. The policymaking process includes the selection of a "working group" (i.e., an individual, a group of individuals, or an institution to examine the problem and to generate recommendations). To do so, the working group requests one or more policy analyses, depending upon the complexity of the problem and the scope of its mandate.

These policy analyses review the identified problems from numerous perspectives, including economic, political, or social, to define and describe the problem and recommend possible solutions. Social, statistical, and epidemiologic data regarding behavioral health are gathered, as is the evidence on best practices. After the recommendations, an external agency or the executive, judicial, or legislative branch of a state or federal government then takes over to initiate the designated actions. This process, or variants of the process, occurs daily across the world as we seek to find best solutions to address behavioral disorders, improve quality of life and outcomes for persons with these disorders, and to improve population health (Hanson, 2014).

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In this chapter, we attempt to integrate current trends in global behavioral health policy, systems, and services, examining the magnitude of the problem, from definitional and operational perspectives, with a focus on child and adolescent behavioral health. This includes a look at the ambiguity of behavioral health policymaking, as a policy problem, from numerous frames, perspectives, populations, and disciplines to the difficulties in integrating global and national priorities across disparate cultures, economies, and infrastructures.

Framing the Magnitude of a Public Policy Problem

Defining significant problems as policy actions in behavioral health are not only harder to define but also more open to dispute as to what constitutes a problem and what is the most effective solution to the problem. Public policy problems often are "wicked problems" (Rittel & Martin, 1973). Such problems are dependent upon how an issue is framed, the language used by stakeholders, and time and resource constraints, but more importantly, there is seldom a definitive solution. Such significant problems essentially are unique and do not have an exhaustively describable set of potential solutions.

Almost anything of an economic, social, or political nature can influence policy, particularly behavioral health policy. In almost any policy analysis in behavioral health, there are overlapping issues, including financing; organization of services; promotion, prevention, treatment, and rehabilitation; intersectoral collaboration; advocacy; legislation and human rights; workforce development; quality improvement; information systems; program evaluation; and research that can affect the continuation, revision, and development of policies that affect services delivery. Finally, any number of economic, social, and/or political factors (determinants) can affect each and every one of the issues identified above and may only reveal themselves during the policy process.

The measures of morbidity, mortality, and disability create a consistent narrative about behavioral health across age, gender, regions, and economies. Global, regional, and national studies that examine the global burden of disease (GBD), disability-adjusted life years (DALYS), and the social determinants of health (SDH) have different frames, but all are central to understand how best to address behavioral health services inequities from a policy perspective.

Behavioral health problems are a leading cause of health-related disability across all age groups (GBD 2016 Disease and Injury Incidence and Prevalence Collaborators, 2017; Maselko, 2017; Murray & Lopez, 1996; Whiteford et al., 2013). Further, the World Health Organization (WHO) estimates that nearly 35% of the global burden of disease (GDB) has its roots in childhood (Baranne & Falissard, 2018; Erskine et al., 2015; World Health Organization, 2014). Children and adolescents constitute almost a third (1.2 billion individuals) of the world's population (UNICEF, 2012).

National and global research estimates suggest behavioral health problems affect between 10% and 20% of children and adolescents worldwide (Kieling et al., 2011; National Research Council & Institute of Medicine, 2009; Waddell, Hua, Garland, Peters, & McEwan, 2007). Nearly 90% of children and adolescents live in low-income and middle-income countries (LMIC), where they form up to 50% of the population (Kieling et al., 2011). In the United States, studies report a 22–24% increase in inpatient behavioral health admissions among children and adolescents and 80% increase in hospital stays for children for mood disorders (Health Care Cost Institute, 2012; Pfuntner, Wier, & Stocks, 2013).

Systematic reviews of mental health promotion and preventive interventions show there are long-lasting positive effects on levels of functioning (e.g., activities of daily living) and social and economic benefits (Barry, Clarke, Jenkins, & Patel, 2013; Durlak & Wells, 1997; Jané-Llopis, Barry, Hosman, & Patel, 2005; Patel et al., 2010).

Such interventions can mitigate the often “poor fit” that occurs when traditional clinical training and practice models fail to address the clinically and socially complex presentations of children and adolescents with behavioral disorders. The success of evidence-based decision-making, particularly in secondary prevention initiatives (Aldrich et al., 2015; Rith-Najarian, Daleiden, & Chorpita, 2016), is based on making decisions using the best available peer-reviewed quantitative and qualitative evidence and the systematic use of data and information systems (Brownson, Fielding, & Maylahn, 2009). However, only about 10% of randomized clinical mental health trials for children and adolescents come from an LMIC (Kieling et al., 2011).

There is ample evidence that behavioral disorders in childhood and adolescence adversely affect young adult and adult outcomes (Almuneef et al., 2016; Bellis, Lowey, Leckenby, Hughes, & Harrison, 2014; Crouch, Strompolis, Bennett, Morse, & Radcliff, 2017; Hughes et al., 2017; Hunt, Slack, & Berger, 2017; Ismayilova, Gaveras, Blum, To-Camier, & Nanema, 2016; Luby, Barch, Whalen, Tillman, & Belden, 2017; McGrath et al., 2017; Oh et al., 2018; Reuben et al., 2016; Sterling et al., 2018; Trotta, Murray, & Fisher, 2015). Hence, a developmental or life span approach is essential. Such a course incorporates universal actions, includes all social strata, and is proportionate to the level of disadvantage (World Health Organization & Calouste Gulbenkian Foundation, 2014). This approach will help “level the social gradient and successfully reduce inequalities in mental disorders” (WHO & Calouste, 2014, p. 10). By focusing on the relationships between and among macro-level context, systems, society, and life-course stages, nations can improve population behavioral health and reduce the risk of those mental disorders exacerbated by social inequalities.

Measuring and Developing Expert Evidence

Social, statistical, and epidemiologic data regarding populations, health, and illness have implications for global behavioral health policy, systems, and services across the developmental life span. The data illustrate the magnitude of the relationships among health, behavioral health, suicide, substance/alcohol use, intentional and unintentional injuries, interpersonal and community violence, war and disasters, and environmental factors across the life span.

Table 1 The World Health Organization's frames on social determinants of health

Action items	Themes
Adopt improved governance for health and development	Employment
Promote participation in policymaking and implementation	Social exclusion
Promote participation in policymaking and implementation	Priority public health conditions
Strengthen global governance and collaboration	Women and gender equity
Monitor progress and increase accountability	Early child development
	Globalization
	Health systems
	Measurements and evidence
	Urbanization

Excerpted from the Rio Political Declaration on Social Determinants of Health (World General Assembly, 2011)

There are numerous ways to frame the necessary evidence necessary to change policy. The World Health Organization, for example, drives the types of evidence for addressing SDH (Kelly et al., 2007). Divided into two components, the five "action areas" and nine themes focus on the conditions in which people are born, grow, live, work and age (World Health Assembly, 2011). Shaped by the distribution of money, power, and resources at global, national, and local levels, the SDH identifies health inequities, that is, the differences in health status seen within and between countries (see Table 1).

In 2015, all United Nations (UN) member states adopted the 2030 Agenda for Sustainable Development, with 17 Sustainable Development Goals (SDGs) and 169 associated targets. The Agenda commits the UN member states "… to the prevention and treatment of non-communicable diseases, including behavioural, developmental and neurological disorders, which constitute a major challenge for sustainable development" (United Nations General Assembly, 2015, p. 8).

Building upon the adoption of the Comprehensive Mental Health Action Plan (WHO, 2013) and the Global Strategy to Reduce the Harmful Use of Alcohol (WHO, 2010) by the World Health Assembly, Goal 3, Targets 3.4 and 3.5 include behavioral health as an integral element of national health policy, infrastructures, and services delivery plans. "Goal 3: Ensure healthy lives and promote well-being for all at all ages" (aka "Good Health and Well-Being") has two targets directly related to behavioral health. Target 3.4 aims to reduce premature mortality from NCDs by one-third with a three-legged approach: promotion of mental health and well-being, prevention, and treatment. Target 3.5 focuses on the prevention and treatment of substance abuse.

In the United States, plans are underway to develop a new set of 10-year national objectives as *Healthy People 2020* ends and *Healthy People 2030* begins. Like the SDH and SDGs, two of the foundational principles of *Healthy People*

2030 are health promotion and disease prevention for physical, mental, and social health while achieving health equity and reducing health disparities (Office of Disease Prevention and Health Promotion, 2018). *Healthy People 2030* continues the SDH, life-course, and population-based perspectives from *Healthy People 2020*, with an additional emphasis on community capacity (Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030, 2018).

Community-based and community-driven initiatives are necessary to change the multiple determinants of health that inhibit health equity to those determinants that build and promote health equity, strengthening the integration of health systems, services, and policies (National Academies of Sciences, Engineering,, & Medicine, 2017).

Indicators

Policymakers use a number of indicators to describe countries and their ability to implement health policy priority initiatives successfully. The public policy issue often establishes the framework and indicators, helped by national and international stakeholders, policies, and legislation. Since we are dealing with numerous countries, regions, naming authorities, and languages, there will be differences in terminologies and challenges in identifying which issues need to be addressed and if/how services will be delivered.

Economic Indicators

One major indicator is the level of economic development in a country. The World Bank (2018a, 2018b) categorizes countries by economies (low-, low-middle, upper-middle, and high-income) and geographies (East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, South Asia, and sub-Saharan Africa). The WHO follows the World Bank designations and separates out high-income countries within each of these regions as a seventh group.

Why is economy such an important consideration? A country's financial status affects how much it can or is able to allocate to identified, strategic concerns. Much of the literature establishes individual and national poverty as a significant factor that affects morbidity and mortality rates, infrastructure, employment, standard of living, political/social stability, health provision, population health, and resiliency to natural and man-made disasters (Balabanova et al., 2013; Bloom et al., 2011; Forouzanfar et al., 2015; Maselko, 2017; Stubbs et al., 2016).

Poverty

Considered a measurement of deprivation, the poverty level of a nation is linked intrinsically with the SDH and to the ability of a country to provide basic health services. Most policy measures have two elements: (1) a measure of need (poverty threshold) and (2) a measure of the resources and goods available to meet those needs. The most common poverty measures are income-based poverty measures, in which measures of need and the available resources are expressed in monetary terms. The World Bank (2018a, 2018b) reports that, in 2015, 10% (736 million) of people in the developing world lived on less than US $1.90 a day.

However, the relative measure used in international comparisons and the official poverty measure may not gauge the effect of non-income programs or resources, so an alternative is to use multidimensional poverty tools that measure non-income-based poverty dimensions. The preferred tool for measuring the SDGs is the United Nations Development Programme (UNDP, 2018) Multidimensional Poverty Index (MPI). Approximately 1.3 billion individuals across 105 developing countries live in multidimensional poverty, of which 1.1 billion people live in rural areas and 0.2 billion live in urban areas (Oxford Poverty and Human Development Initiative, 2018). Eighty-three percent of all multidimensionally poor people live in sub-Saharan Africa and South Asia (India, Nigeria, Ethiopia, Pakistan, and Bangladesh). Two-thirds (889 million) of all multidimensionally poor people live in middle-income countries. Almost 50% (665 million children) live in multidimensional poverty (Oxford Poverty and Human Development Initiative, 2018).

The UNDP MPI captures three dimensions and ten indicators of poverty (Alkire & Jahan, 2018). The three dimensions and ten indicators are health (nutrition, child mortality), education (years of school attendance and years of school), and standard of living (cooking fuel, sanitation, drinking water, electricity, housing, and assets). These dimensions and indicators have been shown to be influential in child and adolescent behavioral health.

Frames

Framing involves the definition or scope of a policy problem or image, that is, how issues are categorized or portrayed. Policy often is linked to accepted national, social, or cultural values; however, core values differ widely from country to country and may or may not change over time. Further, policy issues are complex and multifaceted. Behavioral health can be framed in terms of health, mental health, population mental health, substance abuse, addiction, and more, often related to disciplines (philosophies, epistemologies, and ontologies) and current social, political, and cultural frames.

Currently, a number of global and national anchor frames are used. Anchor frames are a tool to make sense of complex social issues that have many interrelationships or interdependent components. Simply stated, how we interpret, communicate, and understand goals and values in policy is based upon the frame or frames we base our understanding, and these frames underscore the importance of language and symbolic action in policymaking (Edelman, 1988; Fischer, 2003; Stone, 2012; Yanow, 1996).

"Health as a Human Right"

The importance of health, and its definition, from a global perspective, changed over seven decades. In 1946, the Constitution of the WHO defined health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." In 1948, Article 25 of the Universal Declaration of Human Rights (UDHR) also mentioned health as part of the right to have an adequate standard of living. In 1966, the International Covenant of Economic, Social, and Cultural Rights (ICESCR) codified health as a "human right" and first addressed the "underlying determinants of health." In 1989, the UN Convention on the Rights of the Child specifically framed health as a human right that is universally applicable to all children, regardless of the culture of a society (United Nations General Assembly, 1989).

Since that time, numerous international human rights treaties have recognized or referred to the right to health and codified health as a human right in international and domestic declarations, legislation, and policies. These treaties argue fundamental human needs create human rights obligations on the part of both the public and private sectors. However, studies on indicators that tease out the political determinants of health are rare. For their analysis of health policy performance in 43 European countries, Mackenbach and McKee (2013) developed a set of process and outcome indicators that may affect the implementation of effective health policies at a national level. Process indicators measured the degree of implementation of policies that had proved effective, while outcome indicators measured the impact of these policies on the exposure of the population to health risks (prevalence) and the impact on population health. They concluded that various levels of implementation of preventive health policy measures were caused by both the "will and the means" of national governments to implement policies. Stuckler and Basu (2013) suggest there is correlation between decreased health care and failed government austerity programs.

Social Determinants of Health

In 2008, the Commission on Social Determinants of Health defined the social determinants of health (SDH) as "These inequities in health, avoidable health inequalities, arise because of the circumstances in which people grow, live, work, and age, and the systems put in place to deal with illness. The conditions in which people live and die are, in turn, shaped by political, social, and economic forces"(Commission on Social Determinants of Health, 2008, [i]). The World Health Assembly urged the adoption of the SDH, especially for priority public health programs and research on effective policies and interventions (World Health Assembly, 2009, May 22). Hence, an individual's right to health must also address how to reduce these social (societal) determinants of health. Common nomenclature for SDH includes "health inequities," "health inequalities," or "disparities."

Global frames are re-anchored or reframed to meet the needs of local, regional, or national entities. Although the concept of SDH recently has broadened to encompass both the social and *behavioral* determinants of health (SBDs), a 2004 WHO summary report on the prevention of mental disorders listed the social, environmental, and economic determinants of mental health (p. 21). A decade later, the US Institute of Medicine (IOM, 2014, 2015) and the UN/WHO Sustainable Development Goals specifically addressed the social and behavioral determinants of health (SBDs).

Millennium Development Goals/Sustainable Development Goals

In 2000, the UN/WHO Millennium Development Goals (MDGs) committed world leaders to eight global goals that would reduce poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. In 2015, the MDGs were recast within the 2030 Agenda for Sustainable Development as Sustainable Development Goals (SDGs). The 17 new SDGs (aka Global Goals), building upon the original MDGs, seek to eliminate rather than reduce poverty and have specific targets to achieve for health, education, and gender equality. Goal 3 of the SDGs clearly place mental (behavioral) health within the framework of health.

The European Framework for Action on Mental Health and Well-Being

The European Pact for Mental Health and Well-being, formed in 2008, resulted in the EU Joint Action for Mental Health and Well-being: Mental Health in All Policies initiative in 2013 (EU Joint Action on Mental Health and Wellbeing, 2016). The objective of the EU Joint Action is threefold: (1) the promotion of mental health and well-being, (2) prevention of mental disorders, and (3) social inclusion of persons with serious mental disorders. It focuses across five areas: (1) workplace mental health; (2) school mental health; (3) community-based mental health care; (4) e-health initiatives targeted to depression and suicide; and (5) the integration of mental health in all policies (EU Joint Action on Mental Health and Wellbeing, 2016).

To accomplish this, the EU JA MH-WB involved its 28 member states, the EU, pertinent stakeholders, and international organizations, using national working groups, to inform the EU (multi-country) working groups on national situations, capacity building, and commitments among stakeholders. The *European Framework* is the culmination of an EU Green Paper (European Communities, 2005), earlier works by the European Pact for Mental Health and Wellbeing, and the WHO's Global and European Mental Health Strategies and Action Plans.

Mental Health in All Policies (MHiAP)

The UN/WHO focus on health in all policies (HiAP) requires governments to examine the consequences of public policies that do not address the social determinants of health and to better prioritize efforts and capacity building to improve population health (Pena et al., 2013). The specific mention of mental health promotion and prevention as a critical NCD target within the larger global health and sustainable development agendas shows how the reframing of mental illnesses as noncommunicable diseases may be a first step to reducing the stigma attached to mental illnesses and the integration of mental health and physical health promotion and prevention efforts and initiatives. The EU Joint Action for Mental Health and Wellbeing: Mental Health in All Policies initiative has 14 points of discussion, of which two, measuring and monitoring MHiAP and translating MHiAP into practice, are of especial importance for implementation and assessment.

Projects, such as the European Commission's Mapping NCD project (Berg Brigham et al., 2016), and studies on issues surrounding policy, implementation, and governance (Bauman, King, & Nutbeam, 2014; Oneka et al., 2017; Stahl, 2018; Storm, Harting, Stronks, & Schuit, 2014; Synnevag, Amdam, & Fosse, 2018; Van Vliet-Brown, Shahram, & Oelke, 2018) hopefully will provide information to ensure that we do reach the goal of mental health in all policies.

Data from a Policy, Systems, and Services Perspective

How can we best monitor and measure actions to address the SDGs that can inform policymaking, evaluate implementation, and ensure accountability? What data do we collect? How do we normalize the data so we know we are comparing apples with apples, specifically red apples with red apples? How do we disaggregate data to understand better baseline levels and potential impacts of policies? While these are important questions, the answers and the processes necessary to produce the answers and the system in which to collect and use the data are complex.

The typical data sources are data generated through civil registries, vital statistics, economic and labor force statistics, educational systems, administrative systems of governments, utilities, geospatial and environmental agencies, and central banks. These include, but are not limited to, population and housing censuses, agricultural censuses, economic surveys and censuses, and periodic household surveys. If the data are collected, there is no guarantee the available data are current. There often are considerable time lags between data collection and data analysis, not to mention publication and dissemination. Most government data are at least 1–2 years out of date and, in the case of behavioral health data in the United States, for example, often 2–3 years older than year of publication.

There are challenges surrounding the use of interdependent data. Census data is central to calculating per capita economic data, civil registries and vital statistics track access to services, and administrative data and household surveys address safety net and other social programs usage by population. Administrative data in behavioral health captures service performance and population data, but may not capture more qualitative data collected in household surveillance sampling surveys.

Explaining the differences in data availability across countries requires us to examine a number of factors. These include variation in policy priorities, statistical capacities, overall development statuses, institutional/infrastructure, and whether the country sees the applicability or relevance of the indicators in its review of the SDGs and its own policy focal areas. In addition, when looking at regional or subregional policy priorities, there is more data collection on economic goal indicators than on environmental indicators. Further, targets under social goal indicators are more likely to be linked to economic indicators, particularly those which address the multidimensional aspects of poverty.

Of the 161 SDG indicators, there are 20 core objectives, measurement concepts, and indicators for the proposed monitoring system for action on the SDH (World Health Organization, 2016). Approximately one-third of the indicators (6 out of 20) are SDG indicators. A little over one-third of the indicators (8 out of 20) come from existing WHO program assessment initiatives. The remaining third are already part of routine information reported by WHO. At national levels, proposed indicators for monitoring action on the SDH will come from numerous sectors, including health, social protection, education, labor, and human rights.

The availability of data on social determinants, however, is poor. Not all governments collect the same type of data consistently over a period of years within the same region or among a specific population. Something as simple as registering all children who are born into a national registry does not happen in every country. UNICEF estimates the births of nearly 230 million children under the age of five have never been recorded (United Nations Children's Fund, 2014). For example, 39% of the children born in South Asia were unregistered and 44% of all births in sub-Saharan Africa were unregistered. Children are less likely to be registered if they come in poor households or from remote or rural areas, have uneducated mothers, or are female (United Nations Children's Fund, 2014). Lack of a birth certificate or registration may deny child access to basic education and health care. Without documentation, that child does not exist; hence, the child is not counted. When children are not counted, it is difficult to determine incidence or to estimate prevalence of disease.

Establishing Prevalence to Show the Need for Services

Prevalence is defined as a proportion of persons in a population in a given location and at a particular time, e.g., a count of the number of people affected. Counts are used to help determine need for resources, workforce requirements, scope of services, and other elements important to the delivery of behavioral health-care services. Prevalence estimates adjust the counts of the affected individuals to the size of a source population. Prevalence data is critical for child and adolescent health, as almost 75% of the cumulative prevalence of many behavioral health problems, including but not limited to substance abuse, anorexia nervosa, major depressive disorder, bipolar disorder, and schizophrenia, have their onset before age 25.

Reporting prevalence over a region or country can be problematic, as in the case of the European Union and the United States. The Child and Adolescent Mental Health in Enlarged European Union (CAMHEE) report provided a snapshot of child and adolescent behavioral health policies and practices across 15 European countries (Belgium, Bulgaria, Estonia, Finland, Germany (Heidelberg), Greece, Hungary, Latvia, Lithuania, Norway, Poland, Romania, Slovenia, Spain (Catalonia), and the United Kingdom (England)) (Braddick, Carral, Jenkins, & Jané-Lopis, 2009). About 50% of countries reported prevalence rates on positive mental health in children. More specifically, 13 of 15 countries reported the existence of information about the prevalence of mental disorders, whereas just 8 of 15 reported collecting the prevalence of some indicator of positive mental health (e.g., well-being, self-esteem, quality of life, and resilience). Budgets dedicated to CAMH issues, however, were rarely clearly identifiable and were often mixed with other funds (Braddick et al., 2009).

Within the United States, estimating prevalence is extremely difficult due to the lack of a “standard” inclusive definition for a minimum functional level of impairment for an agreed-upon duration in determining prevalence of disorders among children and adolescents (Brauner & Stephens, 2006). The term “serious emotional disturbance” (SED), for example, is not a formal DSM-IV diagnosis. State and federal agencies use that term to identify a population of children who have significant emotional and behavioral problems, who have a high need for services, and who may have a range of functional limitations (Center for Mental Health Services, 1998).

Therefore, estimates of the prevalence of behavioral disorders in children and adolescents in the United States vary widely. While some researchers estimate that between 13 and 20% of children and adolescents in the general population of the United States experience a DSM mental disorder in a given year (National Research Council & Institute of Medicine, 2009), others differentiate the lifetime and current prevalence of mental disorders among children and adolescents in the United States, that is, 21% and 14.8%, respectively (Lu, 2017).

Children and adolescents in specialty care systems, such as child welfare or juvenile justice, have a much higher prevalence of mental disorders (Underwood & Washington, 2016; Yampolskaya, Sharrock, Clark, & Hanson, 2017). However, the estimated prevalence of SEDs was 8.0% (Kessler et al., 2012). More than half (54.5%) of the SEDs were due to behavior disorders, and almost a third of SEDs (31.4%) were attributed to mood disorders (Kessler et al., 2012). Another interesting finding was that just under a third (29%) of respondents with complex (3 or more) disorders from the 12-month DSM-IV/Composite International Diagnostic

Interview disorders constituted more than 60% (63.5%) of children and adolescents with SEDs (Kessler et al., 2012).

Increasingly, in the United States and globally, comorbidity is seen as an index of burden of disease, with more severe courses and outcomes for children and adolescents with mental disorders. These findings then beg the question of how granular definitions should be, how to map between disorder differences effectively, and how to determine risk and effect of high comorbidity with DSM disorders, as well as with SED. This is another of the "wicked" problems in determining policy priorities for addressing global behavioral health problems in children and adolescents.

Overview of Child and Adolescent Behavioral Health Policies Globally

In 2003, the WHO first identified treatment gaps, promoted training, addressed evidence-based treatment, and promulgated a model national policy. Priority disorders were determined by higher frequency of occurrence, degree of associated impairment, therapeutic possibilities, and long-term care consequences (WHO, 2003). The WHO also emphasized the diagnosis of children and adolescents cannot be considered solely from a Western perspective. Presentation of a disorder would vary across countries and cultural/societal subgroups within a country. It also emphasized the importance of determining the degree of impairment and/or disability associated with a diagnosis. The specific diagnosis may be less important than the degree of impairment of the disorder and what supports the individual will need to participate in his or her society (WHO, 2003).

Finally, the WHO stressed the importance of a continuum of care to ensure good quality of care, compliance with best practices, and the ability to maintain children and adolescents in the least-restrictive environments. Establishing guidelines for a continuum of care can help in determining benchmarks and the collection of epidemiological and/or surveillance data to address treatment and services delivery (WHO, 2003).

In 2011, the WHO reported that spending on behavioral health was less than two (US) dollars per person per year, less than 25 cents per person in low-income countries (WHO, 2011). Further, only 36% of people who live in low-income countries overall were covered by behavioral health legislation.

In its 2013–2020 mental health action plan, the WHO defined mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (World Health Assembly, 2013, p. 3). In that report, mental health for children emphasized the developmental aspect of mental health. The definition included for adolescents "having a positive sense of identity, the ability to manage thoughts, emotions, and to build social relationships, as well as the aptitude to learn and acquire an education, ultimately enabling their full active participation in society" (World Health Assembly, 2013, p. 3).

North America

Both Canada and the United States lack a strong national strategy on behavioral health for children, a national framework for indicators, and a national organization to do the measuring. The systems of care in the United States and Canada also have difficulty in assessing prevalence and are underfunded to address the need for services in an increasingly larger child and adolescent population.

In the United States, the fragmented systems of care and difficulty normalizing data across multiple reporting agencies are still problematic. Integrated cross-referral social services and health-care data systems are rare. National studies suggest future surveillance should include standard case definitions of disorders to reliably categorize and count disorders, as well as to ensure comparability and reliability of estimates across surveillance systems (Perou et al., 2013). However, the continued lack of national health care and the inevitable federal vs. state's rights issues result in "best-guess" analysis from numerous sampling surveys and longitudinal studies.

In Canada, there was a concerted effort to address data collection about the behavioral health of children (Junek, 2012). The provincial and national governments wanted the data for policymaking, program construction, priority setting, and resource allocation. The most requested data concerned baseline information about children, specific groups of children, social determinants, characteristics of the user and general population, comparisons of regions and years, and indicators of child functioning, population health, and early identification data. However, across the reports, there were no standard criteria used which would allow comparison across governments (Junek, 2012). Hence, none of the published 64 reports could be considered effective monitoring reports.

South America

The 2011 WHO-AIMS report covers 10 of the 12 countries in South America. Six of the ten reporting countries in South America reported having a document that explicitly stated a national mental health policy (Pan American Health Organization, 2013). However, it is important to note that, similar to the Latin American, Caribbean, and Mexico group, governments in power often did not draft new policies or implement current policies. In addition, 9 of 10 countries reported having a national health plan. Only two countries have specific behavioral health legislation

(Brazil and Uruguay). In the eight reporting countries, the mental health budget as a percentage of the total health budget had a median of 2.05%. Eight countries reported having some coordinating structure (Pan American Health Organization, 2013). Eight countries reported the percentage of children treated ranges from 12% to 38%, with an average of 23% of children and adolescents receiving services (Pan American Health Organization, 2013).

Brazil

Children and adolescents comprise approximately 37% of the population of the Northeast of Brazil (Januário et al., 2017). The prevalence of child and adolescent mental disorders were similar to global estimates (10–20%) with 3–4% of children and adolescents classed with serious, chronic mental illnesses (Januário et al., 2017). Mental health indicators started to be part of the group of national basic health-care indicators after 2005 when Brazil increased their ambulatory care centers. In addition, the number of Psychosocial Healthcare Centers (CAPS) overall has increased dramatically. In Bahia State, CAPS increased from 14 in 2002 to 89 by 2011; Pernambuco State almost tripled its number of CAPS facilities within the last 4 years. More importantly, Brazil formally recognized child and adolescent mental health as a significant public health issue, which should be integrated into the larger Brazilian mental health system, not just limited to educational and social support systems (Januário et al., 2017).

Asia and the Pacific Island Region

Like the other regional reports, Asia and the Pacific Island region are difficult to compile as a single view (OECD & World Health Organization, 2012). Often divided into five regions (North and Central Asia, South and Southwest Asia, Southeast Asia, East and Northeast Asia, and the Pacific), the national, economic, and ethnic complexity of the region make it difficult to provide country comparisons (UNESCAP, 2017), especially when conducting SDG trend analyses. Only 64 of the 244 global SDG indicators, with two or more data points, are collected in fifty percent or more of the countries in the region. Although 89% of Tier 1 indicators have some data, less than 90% of Tier 1 indicators are collected on a regular basis (UNESCAP, 2017). In addition, data availability across the 17 goals is uneven. For SDG Goal 3: Good health and well-being, one or more data points are available for many of the indicators; however, a little over a quarter of indicators are unavailable (48 indicators are available for trend analysis, 22 indicators have an OK status, 4 have limited status, and 26 are unavailable) (UNESCAP, 2017).

Southeast Asia Region (SEAR)

In 2011, seven of the ten countries in the WHO Southeast Asia region (SEAR) reported a dedicated mental health policy (World Health Organization, 2011). In 2017, nine countries had a stand-alone mental health plan or policy, and eight countries had updated their plans or policies since 2013 (World Health Organization, 2018).

Australia

The Australian mental health "system" is a complex system comprised of cross-sector and inter-jurisdictional initiatives, with governments at federal and state levels that influence policy, strategy, funding, laws and legislation, regulations, and public and private services delivery entities (DeLoitte Australia, 2017). In addition to its National Mental Health Strategy and National Mental Health Commission, its *Roadmap for National Mental Health Reform 2012–2022* places an emphasis on "prevention and intervention activities appropriate to each person's life-stage and circumstances" (Council of Australian Governments, 2012, p. 15). This life span/developmental perspective is particularly key for child and adolescent behavioral health.

The second Australian Child and Adolescent Survey of Mental Health and Wellbeing determined the prevalence of mental disorders among children and adolescents in Australia was almost 14% (13.9%, or 1 in 7) (Lawrence et al., 2016). Almost 60% (59.8%) of children were diagnosed with mild mental disorders, a little over a quarter (25.4%) of the children were diagnosed with moderate mental disorders, and almost 15% (14.7%) were diagnosed with severe mental disorders (Lawrence et al., 2016). The Survey also showed a significant association between the presence of a mental disorder and suicidal behavior (Zubrick et al., 2016).

In the national *Young Minds Matter* survey, Johnson et al. (2016) found that 17% of all 4- to 17-year-olds used services for emotional or behavioral problems. Of those children with mental disorders, a little over 50% (56.0%) used available services.

More recently, Wave 6 of the K-cohort of the Longitudinal Study of Australian Children of adolescents who experienced bullying determined there was a marked increased incidence of mental disorders and heightened risk of poor mental health outcomes, self-harm, and suicidal ideation and behaviors (Ford, King, Priest, & Kavanagh, 2017).

Over $9 billion annually is spent on mental health-related services in Australia to serve the approximately 8.6 million, or 45% of Australians aged 16–85 will experience a common mental health-related condition such as depression, anxiety, or a substance use disorder in their lifetime, with an annual prevalence rate of 20% (1 in 5) (Australian Institute of Health and Welfare, 2018). Behavioral health problems are estimated to be responsible for 12% of the total burden of disease in Australia, with 1 in 4 years lived with a disability due to behavioral health disorders the leading cause of non-fatal burden (Australian Institute of Health and Welfare, 2018).

Africa

Africa is often broken into sub-Saharan Africa and North Africa. Sub-Saharan Africa includes all countries that are fully or partially located south of the Sahara, also referred to as East Africa, West Africa, and South Africa. North Africa covers Algeria, Egypt, Libya, Morocco, and Tunisia. There are 55 recognized countries in Africa. Africa is also one of the most diverse continents; the sub-Saharan region of Africa contains over 1000 languages, which is around one-sixth of the world's total number of languages.

Behavioral health issues generally are a very low priority in health services policies. In Africa, the majority of morbidity and mortality occurs from communicable diseases and malnutrition, and the armed conflicts and/or natural disasters in Africa have resulted in burgeoning refugee and displaced populations.

Of the 45 African member states surveyed in the WHO's 2011 *Mental Health Atlas project*, 30 reported they have an existing mental health plan and 20 reported they have existing mental health policies (World Health Organization, 2011). Seventy percent of African countries allocate less than 1% of the total health budget to mental health (Bird et al., 2011). Africa also has the lowest rate of mental health outpatient facilities, at 0.06 per 100,000 people (World Health Organization, 2011). Of the five countries in Africa which are reported in the *Atlas* survey, none had any prevention or promotion programs in schools.

South Africa

Children and adolescents may represent up to 50% of the population in low- and middle-income countries in Africa. However, even upper-middle-income countries may not have a vibrant child and adolescent mental health policy. In 2003, South Africa developed a national child and adolescent mental health policy as a policy and implementation framework for its nine provinces. A policy review by Mokitimi, Schneider, and de Vries (2018) found neither provincial child and adolescent mental health policies nor specific implementation plans supporting the 2003 national policy. Plans that did address child and adolescent mental health did so in a tangential manner and within the context of communicable diseases (e.g., HIV/AIDS and tuberculosis), maternal and child mortality, and the Millennium/Sustainable Development Goals (Mokitimi et al., 2018). However, specific goals for child and adolescent behavioral health can address family disadvantage, abusive parenting, and violence reduction, which in turn can reduce at-risk behaviors by adolescents, thereby improving developmental (psychological, behavioral, and physical health) outcomes across the life span (Meinck et al., 2017).

Central America and the Caribbean

The countries and territories of Central America and the Caribbean often are organized into two groups: (1) Central America, Mexico, and Latin Caribbean, who are comprised of the Spanish-speaking countries, and (2) the non-Latin Caribbean, who are comprised of the Dutch, English, and French-speaking countries. The subregions of the two groups are very different from each other. Each subregion includes countries of different sizes; different population sizes, from 5000 to 2.5 million inhabitants; different socioeconomic statuses; and different geographical locations, on the continent or on islands. The languages spoken also vary widely, including Dutch, English, French, Papiamento, Spanish, Caribbean Hindustani, and Antillean, Haitïan, and English Creoles.

However, the region is epidemiologically heterogeneous; many countries must deal with the double burden of communicable and chronic noncommunicable diseases. Like North America, a major policy emphasis is to integrate behavioral health into primary health care. A second policy emphasis is a universal health strategy (PAHO & WHO, 2017), approved by the PAHO member states in October 2014 (53rd Directing Council, 2014). Universal coverage and access would reduce inequities by strengthening health systems and services and decrease morbidity, disability, injuries, premature mortality, and risk for other health conditions (PAHO & WHO, 2017).

In Central America, Mexico, and the Latin Caribbean, eight countries currently have a national mental health policy (Pan American Health Organization, 2013). In the non-Latin Caribbean, 8 of 16 countries or territories have an explicit policy, Haiti had recently begun preparing one, and the remaining 7 had no specific policy (Pan American Health Organization, 2013). However, only three countries in the Central America, Mexico, and the Latin Caribbean area had specific behavioral health legislation, i.e., Dominican Republic, Mexico, and Cuba. In the non-Latin Caribbean area, only one country, Belize, did not have specific behavioral health legislation.

Behavioral health funding is also problematic. In the countries of the Central America, Mexico, and the Latin Caribbean, the median behavioral health budget was 0.9%. In the non-Latin Caribbean, the median was 3.5%.

All the countries in Central America, Mexico, and the Latin Caribbean have some central coordinating structure. In the non-Latin Caribbean, only five countries and territories have a coordinating entity at the Ministry of Health.

The percentage of children and adolescents receiving treatment in the Central America, Mexico, and the Latin Caribbean area ranges from 8% to 40%, with a median of 23%. In contrast, in the non-Latin Caribbean, the average number of children and adolescents receiving treatment is just 7.5%, making it the lowest in the region. So, within even the Caribbean, there are major differences among the Latin and non-Latin Caribbean. However, as with North America, the lack of a standard definition for surveillance makes it more difficult to determine prevalence, need, and services for children and adolescents with behavioral health problems.

Implications for Behavioral Health

Major gaps in data on adolescents pose one of the biggest challenges for behavioral health policy and services. Not only are data on early adolescents aged 10–14 scarce, data on pre-adolescence/middle childhood (ages 5–9) is practically unknown. Much of this has to do with the fact that fewer international indicators are disaggregated for children aged 5–9 than for early childhood or adolescence. Further, there are few internationally agreed-upon and collected indicators on adolescent mental health, disability, level of disability, and quality of life. Worse, for many developing countries, these data are simply not collected.

Further, disaggregation of data and causal analyses are critical to gain a better understanding of children and adolescents with behavioral disorders as well as the effects of the social determinants of health on this population, need for services, level of disability, and outcomes. Internationally accepted indicators disaggregated by age, disability, sex, ethnicity, caste, and religion are essential to provide for culturally and societally appropriate programs and policies.

There is a lack of numbers to address care in behavioral health services. Determining prevalence and having a 360° view for incidence reporting across public and private sectors are problematic. Two issues surrounding prevalence are definition and standardization. Since there are no consistent national or international criteria for the definition or standardization of prevalence data, the numbers are incomplete and inaccurate.

At a national level (United States), Brauner and Stephens (2006) offer the following recommendations to address the definitional issues surrounding prevalence as an argument for improving behavioral health services. The first steps are to expand the research and establish the use of valid and reliable screening measures, define levels of impairment in ranges, and update the standard definition (Brauner & Stephens, 2006). The next steps would be to create a standard "Developmental At-Risk Profile," remove barriers to treatment, and create and implement a new "Early Childhood Mental Health Plan" (Brauner & Stephens, 2006).

The use of standardized, fully structured, self-administered epidemiologic questionnaires and standardized screening measures designed for families would assist in the collection of data to help in the diagnosis and early treatment of a disorder and complex, multi-morbid disorders. As noted earlier, there is little consensus on how minimum functional impairment should be defined or measured. Without a clear definition or guideline, children and adolescents will not receive the appropriate levels of treatment and supports they need based upon level of impairment.

Misclassification of disorder results in skewed statistics as well as in inappropriate diagnosis and treatment.

As with any disease, the earlier practitioners diagnose and treat disorders, the better responses patients have. With lifelong chronic diseases, this maxim becomes even more important. Measures, such as the DALYS, clearly show the lifelong impact of behavioral disorders on individual levels of functioning and disability as well as larger societal concerns of morbidity and mortality. Creating family-focused measures also allows us to approach the prevention, identification, and treatment of behavioral disorders and accompanying morbid disorders from a generational, holistic public health perspective. If the definition of health from a global perspective is "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948), then clearly we have a formidable challenge ahead of us.

Governments, NGOs, and professional associations can all play a role in helping to push a global agenda for behavioral health across the life span (Remschmidt & Belfer, 2005). Each stakeholder has a role, whether it is in raising awareness through public health prevention and promotion campaigns to help establish facilities to provide services, to provide training programs for behavioral health-care workers, or to advocate and ensure global conventions are followed internationally.

Working with governments and NGOs to change behavioral health policy, services, and systems at global and national levels require intersectoral actions that are, by definition, highly collaborative and voluntary. Creating a conducive policy framework and approach to health brings together many of the issues touched upon in this chapter, starting with effective communication and a common language. Forming partnerships, creating a shared framework regarding visions and missions, determining "implementable" and sustainable goals, garnering political support, and ensuring transparency and accountability are all important elements in creating consensus on policy priorities.

An important consideration in global health policy is that "one size does not fit all." "The one size" should be addressed by a specific country due to its income, of infrastructure, and/or political stability. However, all countries can agree in principle that prevention and early intervention in child and adolescent behavioral health is a critical issue, and they can support it as an actionable item. By using SDH and SBD approaches in global behavioral health policymaking, we are looking at an extremely complex issue that is compounded since SDH and SBD affect the very fabric of society and the rationale of government. Nevertheless, with foresight, planning, and adherence to a global agenda, such an objective may be achievable.

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