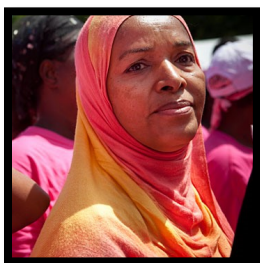


Key Messages:

- ◊ Women in low- and middle-income countries are at higher risk and face higher rates of depression, anxiety, migraine, and other debilitating mental disorders compared to men. In contrast to under-five mortality, mortality due to HIV, and maternal illnesses, mental health-related death and disability rates have remained constant over the past 30 years, indicating an urgent and persisting need to more adequately address the prevention, care, and treatment of these disorders.
- ◊ Most mental disorders begin in women’s late teens and twenties but they occur across the lifespan- affecting several key stages of women’s lives, impacting family stability and economic well-being. Vulnerability, stigma, and lack of access to resources makes this burden particularly acute for women in low- and lower-middle-income-countries.
- ◊ *Disease Control Priorities, 3rd edition* has identified six interventions to address women’s mental health needs that are both cost-effective and feasible in low-resource settings. Achieving 80% coverage in low- and lower-middle-income countries will require an additional US\$ 1.7 and US\$ 3.4 per capita per year of investment, respectively.

Mental health continues to be one of the most under-researched and under-resourced areas of global health despite the fact that **mental and neurological disorders contributed 22% of the overall disability burden** in both men and women in low- and middle-income countries (LMICs) in 2016. Further, a treatment gap of up to 90% has been identified in some LMICs. While the majority of the burden of mental and neurological disorders is attributed to morbidity, new evidence suggests that the mortality from these disorders has also been vastly underestimated.

DCP3 has identified cost-effective prevention and treatment interventions to improve women’s mental health and well-being in low-resource settings.



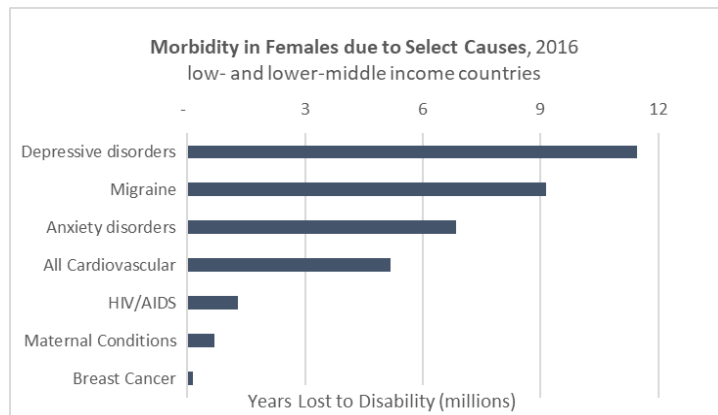
Why be concerned about women’s mental health?

Mental and neurological disorders are frequently grouped together because they share key features: 1) symptoms and impairments are due to some degree of brain dysfunction; 2) social determinants play a role in etiology and symptom expression; 3) disorders often co-occur in the same person; and 4) they can be chronic and remitting.

These disorders have complex causation, and the following risk factors are known to play a role: genetic risk, adverse social experiences (especially adverse early-life experiences),

certain medical conditions, sexual or domestic violence, young age at marriage, and low rates of personal autonomy. In LMICs, women are exposed to several of these risk factors at substantially higher rates than men. There is also evidence showing the linkages between mental health and poverty. Those suffering from mental disorders are more likely to experience poverty, and in turn, conditions of poverty can exacerbate some symptoms of these conditions.

Powerful negative stigmas surrounding these conditions persist in much of the world, associating mental illness with a lack of will power or moral failure. Shame and fear present significant obstacles to seeking and delivering care, and women suffering from a mental disorders are more likely to have negative interactions with legal systems, more likely to be victims of violence, and face heightened social exclusion. This is particularly true for those with severe disorders (such as schizophrenia).



These factors are exacerbated by systemic and legal and gender inequities related to gender, including limited options for recourse in the aftermath of experiencing trauma, limited legal protections for women, and restricted access to education and civic resources.

Stigma affects service delivery at multiple levels—lower prestige for professionals in the mental health community; inadequate resources allocated to prevention and treatment; and insufficient data on need for and coverage of evidence-based interventions for women. These structural barriers contribute to the high level of suffering among women living with these conditions and need to be addressed in parallel with scaling up basic services in LMICs.

*Low-income countries record **twice as many suicide deaths of women** as high-income countries*

Depression and Anxiety

Among mental and neurological conditions in women, the top three contributors to disease burden are depressive disorders (including major depressive disorder and dysthymia), anxiety disorders, and migraines, occurring in women at almost twice the rates that they occur in men. Depression, migraines, and anxiety disorders contributed over **27 million years lost to disability (YLDs)** in women in low- and lower-middle income countries in 2016. In comparison, maternal conditions, all cardiovascular disease, HIV/AIDS, and breast cancer contributed approximately 7.3 million YLDs combined in women in LMICs in 2016.

Migraines

Between **14% and 20% of women in LMICs experienced migraines in 2016**, though due to a lack of available data these figures may be underreported. and women in LMICs experience migraines at double the rate of men. While migraines cannot be cured, they can be effectively managed. Aspirin is a cost-effective and widely available form of self-management. Although migraines rarely signal a serious underlying illness, their causal association with burdens of pain, disability, and diminished quality of life make them a major contributor to ill health.

Alzheimer's and other dementias

The burden of age-related illnesses such as Alzheimer's and other dementias has been steadily increasing. In 2016 Alzheimer's and dementias contributed **over 3.4 million years lived with disability in women in low- and middle-income countries**. The burden for these disorders is an average of 50% higher in women than men in LMICs. Women with neurological disorders often require significant social and economic support because of physical, cognitive, and psychosocial limitations. Resources in LMICs are inadequate to address the high and growing burden.



Age matters

Adolescence

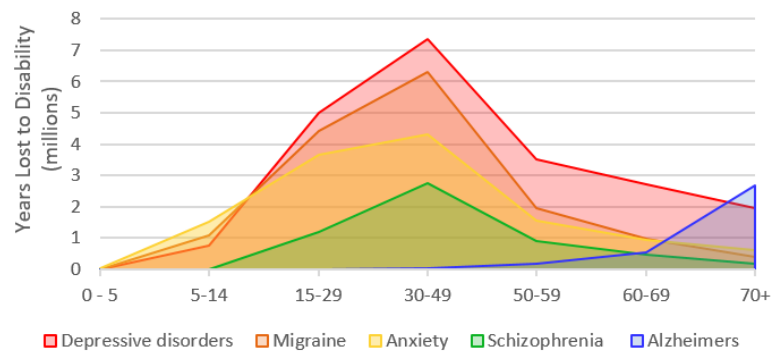
Approximately three-fourths of mental health conditions see their onset of symptoms in adolescence. Adolescence is a period of intense change—

both biologically and socially—where girls experience rapid physiological development, sexual maturation, and social changes such as changing peer groups, changing education status, and introduction into the workforce. It is now recognized as a critical time period for establishing health behaviors for the rest of a person's life, and therefore a critical time period for delivering mental health screening, services, and treatment.

Maternal Mental Health

Depression and other mental disorders affect approximately 16% of women in low- and middle-income countries during pregnancy. Approximately 20% of women suffer from mental disorders in the first year after giving birth. Stress, low socioeconomic status, intimate partner violence, and lack of social support are the most common predictors of maternal depression in LMICs. Maternal mental disorders lower the quality of life for the women who experience them and are associated with pre-term birth, low birthweight, stunting, increased disease risk, and poor child development outcomes.

Burden of Mental and Neurological Disorders in Females by Age, 2016
Low- and middle-income countries



Older Women

Due to advances in other areas of global health, particularly in achieving greater control of communicable diseases and progress on under-five mortality, women and men are now living longer than ever before. This has led to an increased prevalence of age-related illnesses such as Alzheimer's disease and other dementias. These disorders contributed over 1 million years lost to disability in women over age 60 in low- and lower-middle-income countries in 2016. Due to their longevity the majority of the burden of Alzheimer's and dementias falls on women— over half of all deaths and YLDs lost to these disorders in 2015 were among women. Older women are especially vulnerable to social isolation and abandonment as a result of their mental health needs, and it can be challenging to reach this population with health services.

Women as Caregivers

Women have critical roles as both paid and unpaid caregivers of patients with mental health disorders. Women serve as community health workers, midwives, nurses, and home health care providers for family. Studies of unpaid caregivers for patients with schizophrenia show that on average four out of five caregivers are women (often the mothers of those who are ill) and that women are more likely to experience psychological distress and ill health from the burden of providing care. In 2010, *The Lancet* estimated that the amount of caregiving done by women was equal to nearly 3% of GDP in low- and lower-middle-income countries. Programs that provide support to caregivers of patients with mental health disorders are a cost-effective method of improving the well-being of women who provide health care and those they care for.

What can be done: Prevention and Treatment

DCP3 identifies six interventions that are effective at addressing the mental health needs of women based on the burden presented above, and that are affordable in even the lowest resource settings. The design and implementation of these interventions must be tailored to meet specific population needs, but can serve as a strong starting point for policy discussions.

Prevention

There is limited evidence on interventions to prevent or delay the onset of mental and neurological conditions. Interventions targeting parenting skills and parent-child communication are highly recommended. *DCP3* also recommends targeting children and adolescents with life skills training in schools to build social and emotional competencies that could help mitigate the development of mental illness. Community-based education campaigns for the prevention of gender-based violence should be considered due to the relationship between discrimination and violence and mental illness.

Policies are also interventions. Legislation regulating access to means of suicide (such as pesticides) can effectively lower mortality rates due to self-harm.

Treatment

The opportunity for substantial improvement in women's wellbeing lies primarily with treatment. The severity and course of most conditions can be greatly mitigated by psychosocial care coupled, where necessary, with generic formulations of essential medicines.

Each of these interventions can be offered at primary care facilities (or at home for those involving self-care), which patients with depression, anxiety, and migraine are more likely to access. This setting presents a significant opportunity specifically to reach women with basic treatment. Interventions for specific age groups can be instituted at the primary care level. Community health workers and other non-specialist providers can be trained to deliver evidence-based psychological interventions and to support adherence to care.

Selected cost-effective interventions include:

Living with sexual and physical violence and trauma

Sexual and domestic violence is estimated to impact nearly **1 in every 3 women** globally, and in some communities can be as high as 9 in 10 women. The vast majority of these instances are related to interpersonal violence (IPV) often at the hands of a partner. Experiencing intimate-partner violence can lead to lasting impacts of physical, emotional, and psychological suffering, including a diagnosis of post-traumatic stress disorder (PTSD), increased risk of injuries, infectious diseases, reproductive health problems, and noncommunicable diseases. There is also strong evidence of correlation between experiencing violence and risk of suicide. The health consequences impact a woman's economic stability, autonomy, educational opportunities, and overall quality of life.

DCP3 Recommended Health Services

Young Children and Adolescents

- ◇ Psychological treatment for mood, anxiety, ADHD, and disruptive behavior disorders in adolescents

Adults and Older Women

- ◇ Management of depression and anxiety disorders with psychological and generic antidepressant therapy
- ◇ Self-managed treatment of migraine
- ◇ Management of schizophrenia using generic anti-psychotic medications and psychosocial treatment and management of bipolar disorder using generic mood-stabilizing medications and psychosocial treatment
- ◇ Interventions to support caregivers of patients with severe mental disorders

All Ages

- ◇ Post- gender-based violence care, including counseling, provision of emergency contraception, and rape-response referral (medical and judicial)
- ◇ Long-term care services for patients with severe mental disorders

Improvement is possible

The impact on the health and well-being of scaling up these seven interventions as part of Universal Health Coverage (UHC) will be substantial. Approximately **1.7 million** years lost to disability could be averted in low-income countries and **6.0 million** YLDs could be averted in lower-middle income-countries in 2030 by achieving full coverage, addressing nearly a quarter of the projected burden of disability from these conditions that year. The majority of gains from implementing these recommendations accrue to women ages 30-59, primarily from a 34% reduction in women's disease burden due to anxiety and an 18% reduction in YLDs due to depression. The investment required to improve women's health is modest. Across 34 low-income countries an additional **US\$ 1.5 billion** would be needed per year to implement the *DCP3* women's mental health package; in lower-middle-income countries the figure is **US\$ 9 billion** annually. At US\$ 1.7 per capita in low-income countries this expenditure is similar to the investment required to address maternal and neonatal conditions but less than the investment required to address HIV/AIDS and other sexually-transmitted infections.

*Each \$1 million additional investment would avert **1,063 years lost to disability** among women in lower-middle income countries*

Recommendations for Policymakers

- **Rapidly expand evidence-based mental health care services.** The burden of mental health conditions in women living in low- and middle-income countries is high and growing. Reaching these women requires ensuring adequate resourcing for medications and psychological interventions. The growing body of evidence on cost-effective interventions and potential policy solutions can provide much needed relief to women world-wide if they are appropriately invested in and scaled-up.
- **Address social and cultural barriers that increase women's risk of mental health disorder and limit their access to care.** Substantial barriers exist that prohibit or delay seeking mental health care, particularly for women and girls. Additionally, the gendered differences in mental and neurological disorders highlight the need for policymakers and health providers to consider the differing needs of men and women in the diagnosis, prevention, and treatment of these disorders.
- **Integrate mental health training and basic services into antenatal care.** Women on average access primary care at higher rates than men in low- and middle-income countries, driven by existing services for reproductive and maternal health needs. Integrating screening and treatment programs in these settings is an obvious first step for early diagnosis and expansion of coverage of essential mental health services for women.
- **Explicitly consider the needs of women at different ages in national mental health strategies.** The mental health needs of women change with age, as do the opportunities for intervening. Increased global attention on adolescent health and education, specifically girls' education, provides an opportunity to integrate mental health education interventions into schools and classrooms. Supporting women in their roles as caregivers through young adulthood and middle-age can reduce key risk factors. It should be borne in mind that as women age additional resources will be needed for the ongoing care and safety of those with Alzheimer's and other dementias.



For more information and source materials, please visit www.dcp-3.org/gender