Intersection 2: Non-Communicable Diseases and Global Health Equity

As recently as 1990, most illness worldwide was attributed to pneumonia, diarrheal disease, and perinatal infection. It is now recognized that by 2020, non-communicable diseases (NCDs) will be responsible for 60% of sicknesses worldwide and seven deaths in every ten. Most will be in the developing world.

For governments in high- and middle-income countries, which are feeling the budgetary effects of aging populations and urbanization, NCDs are now provoking the same kind of anxiety that HIV did a decade ago.[1,2] There, the burden of NCDs looms especially large, the result of rich diets, lack of physical activity, alcohol, and tobacco use. [3]

There is excellent reason, however, to think that the situation faced by very poor people in both low- and middle-income countries is substantially different. For them, the etiology and epidemiology of NCDs are distinct.[4] In fact, the term "NCD" is misleading with reference to the poor, since it may be linked to infection (for example, cervical cancer, which often results from a virus, or 'tropical splenomegaly,' a frequent symptom of malaria), as well as pollution, inadequate food, and lack of access to basic health care.

In poor countries of sub-Saharan Africa and elsewhere, NCDs are not the major causes of illness, but they are close behind AIDS, tuberculosis, and malaria, representing a quarter or more of deaths and disabilities. No single NCD accounts for a very significant fraction. They are part of a long tail distribution in which many disorders affecting small population groups add up to high disease burden. Even in middle-income countries like India that are often used to illustrate the epidemiologic transition at work, the poorest people are living with a high burden of an entirely distinct set of NCDs due to malnutrition, infections, and gaps in the healthcare system.

Combating heart disease, diabetes, cancer, chronic respiratory disease, and other NCDs requires specialized training and facilities that are almost never available in low-income countries outside large cities, if at all. No single NCD matches the toll of HIV/AIDS, tuberculosis, or malaria. But taken together, they pose a massive challenge to countries with low incomes and tax revenues, underfunded public health services, weak private health care markets, large rural populations, and poor transportation systems.

Because the programs and services needed to address NCDs are so chronically underfinanced in poor countries, they highlight deep global and national inequalities; they are a window into systemic institutional failure. In fact, because they have usually not been addressed at all, we really do not know how bad the problem is. The vicious circle of system incapacity and grossly underestimated disease burden cannot be cracked without a strong affirmative commitment from researchers, governments, and all levels of the health sector.

After the advent of effective antiretroviral medicines, HIV/AIDS became a paradigmatic example of access to care as a human rights issue because of the strongly patterned outcomes in poor and wealthy communities. Today, the burden of NCDs displays

in sharp relief the social fissures that demarcate the rights of different populations. In countries that are deeply unequal, such as India, the poorest communities suffer from both infectious and non-infectious diseases driven by the same fundamental causes. For example, patients with tuberculosis and with diabetes among the poorest people are both likely to be undernourished. In fact, a patient with diabetes in a poor community may have more in common with a tuberculosis patient in that community than with another diabetes patient living in an urban area, in terms of determinants, manifestations, dilemmas in therapy, and in outcomes. If we describe tuberculosis care as a human rights imperative, we can hardly do less for NCDs.

There is increasing evidence that vertical funding for major infectious diseases such as HIV has strengthened health systems around the world.[6] However, a vertical approach to endemic NCDs in poor communities will not work well. Viewed individually, each non-communicable disease is relatively uncommon. In many ways, the advocacy dilemma associated with endemic NCDs is similar to that faced and addressed by the neglected tropical disease (NTD) movement, which tackled a multitude of low-prevalence parasitic infections through a bundled approach.[5, 7]

Most of the interventions for HIV, tuberculosis, malaria, neglected tropical diseases, and maternal and child health can be delivered in the community or at the health center level. The long tail of endemic NCDs requires that well-trained physicians be present at district hospitals, and it also requires that referral center platforms be strengthened.

The task is not easy, but attention to NCDs catalyzed by middle-income countries concerned with epidemic lifestyle diseases can and should be extended to benefit the poorest populations in the world. This will only happen, however, if a commitment is made to study, treat, and avert the NCDs of the bottom billion. To that end, *Health and Human Rights* seeks scholarship at the forefront of NCD research. We would like to promote the development of tools and interventions where the discourse of rights can help break the logjam of unequal access to treatment and prevention for NCDS, both within and between countries.

References

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