

# Economic Issue of the Day



Philippine Institute  
for Development Studies  
Surian sa mga Pag-aaral  
Pangkaunlaran ng Pilipinas

Vol. XVII No. 2 (July 2017)

## The triple burden of disease

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Global trends on the nature and causes of different health risks have shifted over the last century. Countries all over the world, including developing ones like the Philippines, are thus challenged to come up with health systems that can address these evolving health concerns. The World Health Organization (2017) estimated that about half of the 56.4 million deaths worldwide can be attributed to just 10 causes. Among them, ischemic heart disease and stroke were the lead killers, accounting for a total of 15 million deaths. Both communicable and noncommunicable diseases have been the primary culprits of deaths all over the world in the last two decades or so. However, in recent years, cases of road injuries have gradually increased to become one of the top causes of mortality.

This *Economic Issue of the Day* explains the concept of triple burden of disease and its implications for public health policy.

### What is the triple burden of disease?

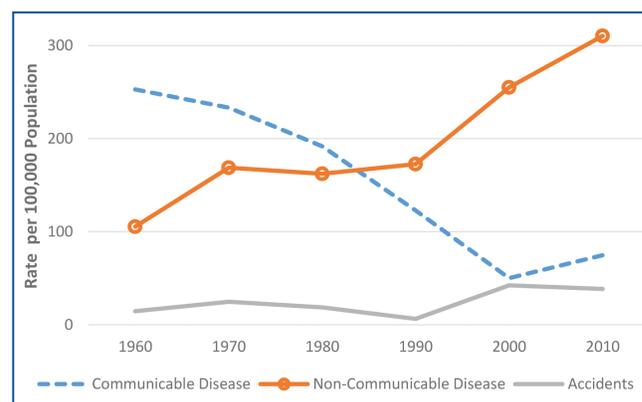
In the Philippines, like in other countries, communicable diseases (CDs), or those diseases caused by direct or indirect spreading of disease-causing bacteria, virus, or other microorganisms, had been the primary cause of death in the past. From 1960 to 1980, for instance, infectious diseases, specifically pneumonia and tuberculosis, were the leading causes of deaths in the country. As countries develop, improved sanitation and better access to health-improving technology among the population have greatly reduced the spread of communicable diseases. By 2010, CDs account for only 20 percent of the 10 leading causes of deaths in the Philippines, down from about 70 percent in the 1960s (Figure 1).

While economic development has been a major boon for combatting CDs, it has, however, contributed to the rise of another class of diseases. Economic growth, which is

usually characterized by urbanization, food availability, employment and technology, have influenced daily lifestyles, including physical activity, diet, and exposure to vices. Developments in food production, processing, and marketing have led to changes in dietary preferences—i.e., consumption of food with high fat, refined carbohydrates, and low fiber (Ulep et al. 2013). These have contributed to the rise of noncommunicable diseases (NCDs).

NCDs tend to be of long duration, and can develop as a result of the confluence of genetic, physiological, environmental, and behavioral factors. As such, these diseases (e.g., diabetes, cardiovascular diseases, cancer, and chronic respiratory diseases), are largely driven by unhealthy lifestyles—i.e., physical inactivity, unhealthy diet, exposure to tobacco smoke, and excessive alcohol intake. In the Philippines, the mortality rates from NCDs

Figure 1. Mortality rate by cause of death, 1960–2010



Note: Based on the top 10 leading causes of mortality in the Philippines  
Source of basic data: Department of Health Philippine Health Statistics (various years)

have doubled over the last 50 years, and now comprise about 70 percent of cases among the 10 leading causes of deaths in the country.

In many industrialized countries, the prevalence of NCDs began to increase only when CD cases have already been controlled at very low levels. But in many others, particularly in developing countries like the Philippines, while the prevalence of CDs is falling, it remains at high levels when cases of NCDs begin to rise. This is the double burden of disease. Still, in many countries where prevalence of CDs and NCDs are both high, afflictions related to rapid urbanization and industrialization (e.g., injuries, substance abuse, and mental illness) are also increasing, which create the triple burden of disease.

For instance, about 5 million people worldwide die each year from injuries (WHO 2017). About a quarter of these fatalities were caused by road traffic injuries. In the Philippines, accidents have increasingly contributed to the total number of deaths, ranking as the fifth highest among the leading causes in 2014. This was higher than the number of deaths caused by diabetes, chronic lower respiratory diseases, or tuberculosis (PSA 2016).

### How much burden are diseases?

Diseases place heavy economic burden on both families and societies. Premature deaths, for instance, can leave families with significant economic loss from incurred medical expenditures, and also from the loss of a contributing household member. In 2015, for every million Filipinos, 580 years of life have been prematurely lost because of heart disease and stroke. Tuberculosis and interpersonal violence, on the other hand, claimed 95 and 71 years, respectively, for every million Filipinos in the same year (Institute for Health Metrics n.d.).

In terms of direct costs, estimates from the most recent Philippine National Health Accounts (Racelis et al. 2015) indicate that families and the government paid a combined total of PHP 465 billion in 2012 to finance current

health expenditures (CHE). Two-thirds of this amount was borne directly by households through out-of-pocket payments. By classification of diseases/conditions, NCDs account for more than half of the 2012 CHE, followed by CDs at more than a quarter. Injuries constitute only a small portion of the total CHE at just 6 percent, but still substantial in absolute terms at about PHP 30 billion.

### Conclusion

The triple burden of disease is a serious public health concern. It is a costly burden that impacts both families and governments. Promoting healthy lifestyles and preventive health measures may be cost-effective solutions. As the adage goes: an ounce of prevention is worth a pound of cure. At the same time, improvements in the health system, which consists of elements such as effective service delivery network, functional and strategically located health facilities, and adequate human resource, are crucial in addressing this important health concern. It is also critical to have an effective health insurance program that will complement a strong health system to ensure access to needed health care.



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