Why We Don't Spend Enough on Public Health

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The field of public health has long been the poor relation of medicine. Medicine — in which most resources are used to help cure individual patients after they have become sick or injured or to help manage already-existing chronic conditions — is flashy, its master practitioners and innovators lionized, and its accomplishments widely celebrated. In contrast, public health — in which most resources are focused on trying to keep something bad from happening in the first place — is seemingly mundane, its efforts and prime movers often all but invisible.

Medicine is primarily a private good — the patient receives the main benefit of any care provided. Payments usually come from the individual patient and, in the developed world, from private and governmental insurance. Public health, on the other hand, provides public goods — such as a good sewer system — and relies almost exclusively on government funding. It is generally acknowledged that public health is systematically underfunded and that shifting resources at the margin from cures to prevention could reduce the population's morbidity and mortality. I believe there are four key reasons for such underfunding.

First, the benefits of public health programs lie in the future. Our brains are structured so that we use different neural systems when considering the present and the future.[1] The problems of temptation, procrastination, and impatience exist in large part because of the desire of the ancient part of our brain, the paralimbic cortex, for immediate gratification. Since it takes willpower to delay gratification, individually and collectively we sometimes underinvest in the future. People typically seek medical care because they want quick relief for immediate concerns — current illness or injury. Most public health measures, however, incur costs today but don't provide benefits until sometime in the future.

When considering a public health investment today (e.g., improving road safety, preventing mad cow disease, or limiting climate change) that will potentially yield benefits in the future, many politicians correctly understand that their administrations will bear the costs, but the benefits will be reaped on someone else's watch. They therefore put great effort into putting out today's fires and relatively little into preventing tomorrow's conflagrations.

Second, the beneficiaries of public health measures are generally unknown. Whereas medicine typically deals with identifiable people (patients), public health typically deals with statistical "lives." The medical care you receive is directed at helping you. Public health interventions, on the other hand, are aimed at improving the health of a group of people; when lives are saved, it's often unclear whose lives they were.

People have stronger emotional and moral reactions to the plights of identifiable victims than to those of statistical victims.[2] In 1987, when 18-month-old Jessica McClure fell down a well in Texas, the country was enthralled. As a nation, we will spend tens of millions of dollars to save one Baby Jessica but are often unwilling to spend an equivalent amount to prevent the deaths of many statistical babies. We willingly provide resources for relief when publicized catastrophes affect specific individuals or communities, from New Orleans to Haiti. We are less willing to provide resources for the prevention of such widespread devastation. The scandal that people remember about Hurricane Katrina is not so much the lack of preventive measures (e.g., stronger levees) that would have averted the calamity but the inadequate rescue efforts.

Third, in public health, the benefactors, too, are often unknown. Although public health efforts are recognized by some as having played a more important role than curative care in improving our country's health over the past century,[3] the American public, through no fault of its own, has almost no idea what public health professionals and programs do. Public health has little news value — saving statistical lives doesn't make for good human-interest stories or photo ops. Public health also has few well-known scientists or leaders. Whereas many people have heard of such medical giants as Michael DeBakey and Christiaan Barnard, I would venture to guess that few

know about their contemporary, Maurice Hilleman, a researcher who developed more than 30 vaccines (including those for measles, mumps, and chickenpox) and who is credited with saving more lives than any other 20th-century scientist.

When people benefit from public health measures, they often don't recognize that they have been helped. In the United States today, it is easy for people to take it for granted when, on any particular day, they don't get sick at work (because of air-quality improvements), aren't poisoned (because the food is safe), or don't get run over (because the walkway has been separated from the road). In the few cases in which people do recognize that they've been helped by preventive measures, they rarely know who provided the benefit. In contrast, the help provided by curative physicians is more easily identified. So whereas grateful patients, in turn, provide much financial support for hospitals, there is generally no grateful public providing substantial support for public health initiatives.

Fourth, some public health efforts encounter not just disinterest but out-and-out opposition. Such initiatives often require societal change, which runs counter to the well-documented human characteristics of "status quo bias" and "tradition-bound resistance." Even the most successful public health initiatives, such as the "great sanitary awakening" of the 19th century, which dramatically reduced the spread of tuberculosis, were met with fierce opposition.[4]

Societal change is hard, and it is especially difficult when it imposes costs on powerful special interests. In the past half-century, those opposing beneficial public health measures have included some of our most potent political lobbies, representing the interests of the alcohol, tobacco, firearm, automobile, coal, and oil industries. For instance, Americans who die before 40 years of age are more likely to be killed by an injury than a disease. In the early 1990s, firearms were the second-leading cause of injury-related death in the United States, killing 100 civilians per day. The Centers for Disease Control and Prevention (CDC) began spending a disproportionately small amount of money on this enormous issue — $2.6 million (about a penny per person) on data collection and research each year. One CDC-funded study of violent deaths in the home showed that the presence of a gun in the household was a risk factor for such deaths.[5] But congressional delegates on the CDC appropriations committee, bowing to the wishes of an outraged gun lobby, tried to shut down firearm-related activities at the CDC. Although initially unsuccessful, their attempt had such a chilling effect that the CDC has effectively stopped funding research on this major public health problem.

In contrast, increases in resources for medical care are usually promoted rather than opposed by large special interests, from pharmaceutical and medical insurance companies to physicians, nursing homes, and hospitals.

Epidemiologists are taught to recognize and address the problems of systematic error. Hospitals are learning to detect and prevent systematic errors in providing medications and other practices. Similarly, our country needs to understand and try to correct systematic policy errors — including the tendency to underinvest in public health.

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Syphilis and Social Upheaval in China

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Syphilis, a sexually transmitted infection (STI) that was nearly eliminated from China 50 years ago,[1] is now the most commonly reported communicable disease in Shanghai, China's largest city.[2] No other country has seen such a precipitous increase in reported syphilis cases in the penicillin era.