Perceived Threats and Real Killers

Our national priorities in public health have recently become focused on an abundance of fascinating new and emerging diseases: anthrax, smallpox, West Nile virus, Ebola virus, severe acute respiratory syndrome (SARS), Creutzfeld-Jakob disease, and monkeypox. Each outbreak has heightened interest in the medical community, received immense attention from the media, invoked fear in the public, and shifted public investment to accelerate the investigation and control of these diseases. In addition, the tragic and untimely deaths of Dr. Carlos Urbani, a World Health Organization expert, from SARS in Vietnam and of Dr. Matthew Lukwiya from Ebola virus at a hospital in Uganda serve as graphic reminders that members of the medical profession are on the front lines in dealing with new diseases. The highly publicized outbreaks of anthrax spread through the mail and of monkeypox introduced by exotic pets have made us all feel vulnerable. We have come to worry about whether we can sit outside in the summer without being bitten by a mosquito harboring West Nile virus or travel aboard an aircraft without contracting SARS. Fear is the common theme—fear of exposure to unknown infections and biological weapons, and to more widespread, fatal, and uncontrollable epidemic diseases. An immediate consequence has been that when the public is queried about the diseases they fear most and when policymakers are asked for funding for disease control, their responses usually cite the “epidemic of the day.”

These recent events and the alarm they evoke have become a driving force in determining public health practice in the United States and, by extension, in many parts of the world. Although this has energized interest in infectious diseases, increased public health surveillance, improved diagnostics, and mobilized the development of new drugs and vaccines, we must be clear about the opportunity costs these actions pose to the broader scope of infectious disease prevention and control. When international groups assess global priorities in public health, they generally focus on the real killers—diseases that cause the greatest mortality—not just on the new threats to public health. These killer diseases, each of which claims the lives of more than half a million people per year, include influenza, hepatitis, rotavirus, papillomavirus, malaria, HIV, tuberculosis, acute respiratory diseases, and diarrhea. Deaths from these conditions have become old news, “invisible” and less urgent to address when compared with the novelty diseases that captivate the populations of developed countries despite their being of limited public health consequence in terms of the relative number of deaths.

Bill Gates recently commented that if a 747 aircraft crashes, the news spreads rapidly; the incident is investigated thoroughly; and the press follows the incident, the victims’ stories, and the compensations with ghoulish interest. However, if half a million children die each year worldwide from rotavirus—the equivalent of several 747s full of children each day—the story does not sell a single paper. Similarly, another killer virus, influenza, remains underappreciated, and despite the availability of an effective vaccine, we still have 37,000 flu-related deaths in the United States each year.

Today, there seem to be two distinct types of infectious diseases: the rare but much feared diseases for which investigators greatly outnumber the fatal cases, and the major everyday infectious diseases that are real killers, for which the number of deaths massively outnumber the investigators. The challenge for us all is to sustain research on the killer diseases while keeping in perspective those diseases that remain largely as threats. As we set priorities in public health, we should ensure that new interest generated by emerging infections helps to both sustain and support programs to control and prevent the recurrent killer diseases whose global burden remains great and where investments can be lifesaving. We need to guide the public’s attention and policymakers’ priorities to keep the response to the epidemic of the day in perspective and not lose sight of the real infectious disease problem: the everyday killers of children and adults around the world.

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Roger I. Glass (May 13, 2004)
Science 304 (5673), 927. [doi: 10.1126/science.304.5673.927]

Editor's Summary

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