[Announcer] This program is presented by the Centers for Disease Control and Prevention.

The New Global Health

Health has become an area for diplomatic engagement and a priority subject on the world stage. Funding for global health has reached about $30 billion a year. However, too often there is a lack of coordination across the inordinately complex architecture of global health. Agencies other than the World Health Organization, or WHO, such as the World Bank and the Bill and Melinda Gates Foundation, have become prominent funders that influence policy; and new multilateral organizations, such as the United Nations Joint Programme on HIV/AIDS and the Global Alliance for Vaccines and Immunisation. Civil society groups, such as Médecins Sans Frontières, implement programs and exert substantial political pressure.

These developments have challenged WHO, which although retaining unique credibility and convening authority, is hampered by funding shortages and donor-imposed earmarks, an inflexible bureaucratic and governance structure, and difficulty prioritizing in the face of unrealistic demands. Many decisions are now made outside the World Health Assembly, the world's senior and most representative forum of global health discussion. Newer global health actors are often seen as swifter and more focused on performance and accountability.

With global emphasis on austerity, there is now, more than ever, a need for bilateral and multilateral assistance to be coordinated for maximal effect, to avoid duplication and gaps, and to focus on measureable results. A first requirement, including for bilateral partners, is agreement on what constitutes global health and which agencies are best placed to play particular roles.

Progress requires revision of the dichotomous view of a static world of industrialized or developing countries, rich or poor. Today's health disparities are as extreme within countries as between them. A more useful perspective is that global health requires synergistic engagement by all countries in an interdependent world, replacing the model of donors and recipients.

Global Health

The term global health has replaced tropical medicine and international health. Global health is multidisciplinary, encompasses many elements besides development, and requires coordination of multiple parties, rather than direction by one organization or discipline.

Global health reflects the realities of globalization, especially the increased movement of persons and goods, and the global dissemination of infectious and noninfectious public health risks. Global health is concerned with protecting the entire global community, not just its poorest segments, against threats to health and with delivering essential and cost-effective public health and clinical services to the world's population. A fundamental tenet is that no country can ensure the health of its population in isolation from the rest of the world.

Development, Security, and Public Health

Three overlapping themes determine global health action: development, security, and public health. These themes provide the humanitarian and political bases for engagement by high-income countries in health matters internationally: for development, to promote health for

stability, prosperity, and better international relationships; for security, to protect their populations against internal and external health threats; aAnd for public health, to save lives worldwide and at home.

Development

Of 214 countries categorized by the World Bank, only 36 were classified as low-income countries, 26 of which were in Africa. Economic growth is moving some low-income countries toward middle-income status, and some of the greatest imbalances in wealth may now be within, rather than between, individual countries. With socioeconomic development, basic health indicators improve but so do countries' abilities to shoulder more of their own health expenditures.

A clear correlation exists between countries' gross domestic product and their health indicators, such as mortality rates in children less than 5 years of age (highest in low-income countries) or life expectancy (highest in high-income countries). Development raises living standards, accompanied by the improvement in basic services and drivers of health. The fundamental responsibility for development agencies, and their greatest contribution to health, is poverty reduction.

Although family planning and maternal and child health remain high on the development agenda, demographic trends are changing rapidly. Since 1980, the world's population has increased by nearly 60 percent. By 2025 more than half of the world's citizens will live in urban settings, all challenged by the need for basic infrastructure and services.

A welcome trend has been renewed attention to reducing avoidable deaths among children. The worldwide reduction in childhood mortality rates means that since the 1980s, deaths among adults have exceeded deaths among children.

Six countries account for about 50 percent of global deaths in children. Seven account for more than 50 percent of the world's maternal mortality rate. Further reduction in maternal and child mortality rates globally will require special focus on countries with the greatest absolute numbers of maternal and child deaths.

Health Security

Drawing on earlier United Nations perspectives that characterized poor health as one of the several threats to human security and well-being, health security captures the need for collective action and preparedness to reduce vulnerabilities to public health threats that transcend borders. Earlier optimism predicting the end of infectious diseases was replaced by recognition of the threat to global health from emerging infectious diseases and widespread antimicrobial drug resistance. Other aspects of globalization negatively affecting health security include the trafficking of drugs and persons and population movement consequent to conflict and instability.

The global framework for health security is embodied in the International Health Regulations that were revised in 2005 and adopted by the World Health Assembly, but whose implementation is lagging behind the 2012 target date. The diversity of health threats results in involvement of other sectors, such as defense and diplomacy, and linkage with other international agreements, such as those relating to control of chemical, biological, and nuclear weapons.

Surveillance and laboratory capacity through strong national public health institutes are essential components of functioning health systems that provide the basis for health security.

Public Health

The scale-up of programs for HIV/AIDS, malaria, and tuberculosis over the past decade led to substantial disease-specific progress. However, these experiences also highlighted the relative neglect of other priority areas and led to criticism that vertical, targeted programs failed to strengthen health systems overall. As a result, there has been renewed focus on the other health-related Millennium Development Goals, or MDGs, especially relating to children's and maternal health. These perceptions contributed to the establishment of the United States government's Global Health Initiative in 2009 that addresses all health MDGs and some neglected tropical diseases in a more integrated manner.

The longstanding tension between vertical and horizontal approaches is now better understood, and there is greater emphasis on integration of efforts.

National public health institutes and strong ministries have the core responsibility for defining policies, goals and targets, and assuring technical guidance, supervision, program implementation, evaluation, and accountability. Although epidemiology remains at the core of such work, the increased complexity of combinations of interventions in public health has highlighted the utility of mathematical modeling for assisting in decision making and policy setting.

Modern public health agencies have to be global in outlook to fulfill their domestic mandates. Because of the credibility emanating from their technical expertise, these agencies play an essential role in health diplomacy and development of public health capacity.

Unfinished Business: Infectious Disease Priorities

Recent estimates of the global incidence of disease suggest that communicable diseases account for about 19 percent of global deaths.

There is increasing pressure to use resources for biomedical interventions with the strongest evidence of efficacy. Efforts toward achieving an AIDS-free generation are centered around HIV treatment scale-up, prevention of mother-to-child transmission, medical male circumcision, HIV testing and counseling, and focus on key populations in which HIV infection is concentrated. The commitment to virtual elimination of HIV disease in children could usefully link new initiatives to traditional maternal and child health programs delivered through development funding.

Tuberculosis is decreasing in incidence in all regions of the world, although more slowly than expected in some regions. The spread of drug-resistant tuberculosis and extensively drug-resistant tuberculosis highlights global vulnerability and interrelatedness of health systems and challenges health equality. Key scientific advances concern better understanding of the role and use of antiretroviral therapy for persons with tuberculosis co-infected with HIV, new diagnostics with the potential to make case finding more effective, and less strikingly, new drugs.

Poverty-related diseases such as the 17 conditions categorized as neglected tropical diseases have also received increased investment, especially those for which mass drug administration offers a control strategy.

Two groups of diseases meriting global health attention are those that are epidemic prone or vaccine preventable, including influenza. Dengue and yellow fever are the major mosquito-borne viral infections. In recent years, large outbreaks involving a specific arbovirus, chikungunya

virus, have affected the east coast of Africa and islands in the Indian Ocean with importation into Europe.

The second decade of this century has been designated as the decade of vaccines. The opportunity exists to have an effect on the 2.5 million deaths of children annually from vaccine-preventable diseases by use of new vaccines for prevention of rotavirus and pneumococcal infection, and by strengthening routine services. Vaccination against type A meningococcal meningitis in the Sahel and against hepatitis B virus and human papillomavirus illustrate the unrivaled possibilities in terms of controlling previously deadly epidemics or virus-induced cancers. A major unfinished priority is polio eradication; this goal is particularly threatened by funding shortfalls and ongoing transmission in Pakistan, Afghanistan, and Nigeria, which have seeded infection in other countries in which polio had been eliminated.

Lack of access to water and sanitation highlights some of the greatest inequities in global health. Approximately 1 billion persons worldwide do not have clean drinking water. Large epidemics of waterborne diseases continue to occur, as exemplified by ongoing cholera transmission in Haiti. It is difficult to explain why investment in separating human drinking water from human feces, the basis of the nineteenth century public health revolution in Europe and North America, has not been a higher political or development priority in resource-poor settings.

Noncommunicable Diseases

The high-level meeting on noncommunicable diseases at the General Assembly of the United Nations in 2011 emphasized how these diseases now dominate health worldwide.

Global funding for noncommunicable diseases is minimal and coordination is limited. Implementation of surveillance to assess incidence and needs, along with selected policy interventions to address them, will have the greatest immediate effect for the least cost. To encourage countries to take action, WHO is defining population-level targets for noncommunicable diseases and associated risk factors for program implementation.

Conclusions

Population growth, increased life expectancy, and decreased age-specific mortality rates in children and young adults have contributed to the altered global health landscape. The New Global Health concerns health in all countries and encompasses poverty alleviation, universal health security, and delivery of appropriate public health and clinical services, including for the increasing prevalence of noncommunicable diseases.

Equity, universal health coverage and access, and fairness in health financing are global aspirations likely to feature prominently in discussions about what comes after the 2015 MDG target date. The unfinished infectious disease agenda will remain a priority, but common approaches will have to address noncommunicable diseases, regulation of commerce in medical technologies and pharmaceuticals, health financing, and systems strengthening. An emerging topic will be surveillance for and mitigation of effects of environmental and climate change.

We must not forget the current challenges facing the lowest-income countries, the needs of disenfranchised or displaced populations, societies threatened by conflict and humanitarian emergencies, and the urban and rural poor living conditions in the midst of plenty. Global interconnectedness requires us to address the health of the planet’s entire population, irrespective of national borders. Engagement in global health is not simply a humanitarian concern but a priority for our collective well-being, efficient use of resources, and safeguarding our future.

This has been an abridgement of an EID Perspective of The New Global Health, published in the August 2013 issue of *Emerging Infectious Diseases*.

If you would like to comment on this presentation, send an email to eideditor@cdc.gov. I'm Dr. Mike Miller for *Emerging Infectious Diseases*.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO.