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# Commentary: Emerging and other communicable diseases

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*There is an increasing need for integrated, sustainable, and cost-effective approaches to the management of infectious diseases. For example, an emerging disease in one country may already be endemic in another country but nearing elimination in a third. A coordinated approach by WHO towards infectious diseases is therefore needed that will facilitate more effective support of on-going efforts for the prevention and control of endemic diseases, intensify efforts against those diseases targeted for eradication and elimination, and result in better preparedness and response to new and re-emerging diseases.*

*In order to meet these challenges, WHO has created a new Programme on Communicable Diseases (CDS), which will replace the former Division of Emerging and other Communicable Diseases (EMC). The new Programme will better integrate surveillance, prevention, control, and research over the whole spectrum of communicable diseases. CDS will function as focal point for global data and information exchange on infectious diseases, and inter alia, will reinforce laboratory-based surveillance of bacterial, viral, and zoonotic diseases to ensure early detection of threats to international public health.*

*Changes in susceptibility to infectious disease, increased opportunities for infection, and the ability of microbes to adapt rapidly will continue to challenge WHO to improve prevention and control of infectious diseases in the future by establishing strong partnerships with both the private and public sectors.*

One of the main reasons why WHO was set up was to fight communicable diseases. Today, fifty years after the Organization was founded, challenges both old and new make that battle as relevant as ever. It was against the backdrop of disease emergence and resurgence discussed in the previous article on emerging infectious diseases that the World Health Assembly in 1995 adopted a resolution calling on WHO to strengthen and coordinate international efforts to respond to communicable diseases. The result was the establishment of the WHO Division of Emerging and other Communicable Diseases (EMC) to strengthen national and international capacity for the surveillance and control of communicable diseases, including emerging and re-emerging public health problems. The Division was also set up to ensure a timely and effective response to infectious disease outbreaks.

The growth of EMC has been significant and over the past three years, it has focused on reshaping and strengthening the network for communicable disease surveillance, preparedness, and response at both the global and national levels. Improving laboratory-based surveillance, international commu-

nication networks, national surveillance systems, and public health infrastructure have been the basis of this work.

Under WHO's Director-General, Dr Gro Harlem Brundtland, the activities carried out by EMC will be strengthened and broadened by merging five former Divisions to create a new Programme on Communicable Diseases. This will facilitate surveillance, prevention, control, and research on a wide spectrum of communicable diseases. As health sector reforms are undertaken across the world, the need for integrated, sustainable and cost-effective approaches to the management of disease becomes increasingly apparent. For example, an emerging disease in one country may be endemic in another country, and nearing elimination in a third. A coordinated approach by WHO will therefore enable more effective support of on-going efforts for the prevention and control of endemic diseases such as tuberculosis, cholera and meningitis; intensified efforts against those diseases targeted for eradication and elimination; and better preparedness and response to new and re-emerging diseases.

Global information access for the surveillance and control of infectious diseases requires effective, up-to-date electronic communications systems to support monitoring and alert. CDS will be a focal point for global data and information exchange on infectious diseases, providing clear, reliable and accessible information to both public health professionals and the general public. The Programme's widely used resources, including *Disease outbreak*

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Reprint No. 5893

news, the *Weekly epidemiological record*, and *International travel and health*, are available on the World Wide Web (<http://www.who.int/emc>) and also in printed form.

Effective global surveillance of emerging and re-emerging diseases relies on WHO information networks on bacterial, viral and zoonotic diseases to ensure early detection of threats to international public health. CDS will reinforce laboratory-based surveillance, a key component of infectious disease and antimicrobial resistance monitoring and alert, by providing support to existing collaborating centres and laboratories, seed funding for development and distribution of diagnostic reagents, and designating new centres to fill geographical gaps. These networks also encompass antimicrobial resistance monitoring networks and military laboratories in over 50 countries.

Epidemiological surveillance on the global level is being improved in several ways. Revision of the *International health regulations* will facilitate rapid reporting and response to infectious diseases of international public health importance. The establishment of an outbreak verification system emphasizes rapid alert through electronic links between WHO's network of regional offices, country representatives, and other partners. Priority surveillance systems have been set up to monitor influenza, HIV/AIDS, hepatitis C, Creutzfeldt-Jakob disease, rabies, and haemorrhagic fevers.

Global control of infectious diseases requires creating the international environment necessary for implementing surveillance and for undertaking prevention and control measures. WHO contributes to this by developing standards and strategies, promoting and conducting basic and operational research, and evaluating diagnostic tools and epidemiological approaches. The Organization has been instrumental in bringing together groups such as the pharmaceutical industry, nongovernmental organizations and other international organizations to help solve problems such as the supply and distribution of vaccine for epidemic meningitis.

In many cases, WHO coordinates the international response to outbreaks of public health importance, aiding countries in epidemic investigation and management when needed to ensure disease containment. In addition to addressing bacterial, viral and zoonotic diseases, the Organization and its partners are taking action in areas of increasing international concern such as xenotransplantation, biosafety, and hospital infection control.

National surveillance and control systems are needed to identify areas of high risk for disease, implement prevention strategies, and detect and contain the re-emergence of disease. Governments

must have a clear picture in order to prevent and control infectious disease in a country as a whole and in populations at special risk, as well as to be able to identify unusual disease patterns. Information from countries is needed at the global and regional levels to help guide international action and better direct scarce resources. WHO is reinforcing infrastructure and networks to recognize, report on, and respond to communicable diseases by assisting countries to improve their laboratory and epidemiological surveillance systems, implementing sub-regional initiatives to improve epidemic preparedness, and by training and networking national health professionals through a variety of different programmes.

Controlling infectious diseases is an international challenge requiring a sustained, committed effort and undiminished resources. In the coming decades, the world's population will continue to expand and interact with its environment in new ways, and the epidemiology and geographical distribution of infectious diseases will continue to evolve. Changes in susceptibility to infectious diseases, increased opportunities for infection, and the rapid adaptation of the microbial world will continue to challenge WHO to adapt, to improve prevention and control of infectious diseases over the years to come.

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## Résumé

### Maladies émergentes nouvelles et autres maladies transmissibles

De plus en plus, il apparaît nécessaire de mettre au point des approches intégrées, durables, efficaces et économiques pour combattre les maladies infectieuses. Il peut arriver en effet qu'une maladie fasse son apparition dans un pays, alors qu'elle est déjà endémique dans un autre et qu'elle est en voie d'élimination dans un troisième. C'est pourquoi l'OMS s'efforce de mettre au point une approche coordonnée, qui devrait permettre de mieux soutenir les efforts déjà entrepris pour la prévention et la lutte contre les maladies endémiques, de renforcer l'action contre les maladies dont l'éradication et l'élimination sont prévues, et d'améliorer les capacités de lutte contre les maladies nouvelles et en résurgence.

Pour répondre à ces besoins, l'OMS vient d'établir un programme sur les maladies transmissibles, qui remplace l'ancienne Division des maladies émergentes et autres maladies transmissibles. Ce programme nouveau doit promouvoir une meilleure intégration des éléments de surveillance,

de prévention, de lutte et de recherche concernant toute la gamme des maladies transmissibles. Le programme CDS jouera le rôle d'organe coordinateur pour l'échange mondial de données et d'informations sur les maladies infectieuses et pour le renforcement de la surveillance en laboratoire des maladies bactériennes et virales et des zoonoses, en vue de permettre une détection précoce des menaces pour la santé publique au niveau international.

Afin de répondre aux nouvelles évolutions inquiétantes observées en ce qui concerne la sensibilité des individus aux infections, la multiplication des risques d'infection et l'aptitude des micro-organismes à s'adapter rapidement, l'OMS devra poursuivre ses efforts à l'avenir pour renforcer les activités de prévention et de lutte contre les maladies infectieuses en établissant des partenariats actifs, aussi bien avec le secteur privé qu'avec le secteur public.