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BIOLOGICAL AND TOXIN WEAPONS CONVENTION

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COMMUNICABLE DISEASE SURVEILLANCE SYSTEM IN TURKEY

Recent changes in disease epidemiology and developments in diagnostic capability meant that the notifiable diseases and the surveillance methods in the Turkish communicable disease notification system needed to be overhauled. In 2001, a committee comprising of representatives from the Ministry of Health and some 60 academics was established. This committee initiated a review of the national communicable disease notification system with a view to launching a new system. Accordingly, a new and completely revised communicable disease notification was launched nationwide in 2005, by the Department of Communicable Diseases and Epidemic Control, Ministry of Health. The review committee continues to meet regularly to revise the system.

The communicable diseases situation in Turkey varies greatly by region, and depends on the level of development and healthcare services provided there. The review committee took into account these differences were taken into account when devising the new communicable disease surveillance system. Before 2001, the total number of infections notified in Turkey used to be under representative of the true burden of disease. Case definitions also varied.

During the review, the following objectives were pursued:

- a) Identifying the list of notifiable communicable diseases, determining the case definitions, establishing a notification system based on an appropriate communication web structure, with the aim of preventing and controlling communicable diseases,
- b) Maintaining the communication between the Ministry of Health and local health authorities responsible for collecting the relevant data,
- c) Maintaining constant communication between the Ministry of Health and local health authorities for an early warning and response system via appropriate equipment,
- d) Improving general or specific surveillance mechanisms or programs for diseases and,
- e) Determining diagnostic methods required for detection and control of epidemics.

The review committee considered the following factors were when reviewing the list of notifiable diseases:

- Is the disease a significant public health problem in Turkey, or could it be one in the future?
- Does the diagnostic capability exist?
 - Are special surveillance or prevention programmes already being carried out?

During the first stage of the review, standard case definitions for important communicable diseases were devised. During the second stage, the need for disease surveillance was considered. At the third stage, the diagnostic capacity for different diseases was reviewed. At the fourth stage, the notification system and the forms used for notification were examined and re-drafted.

In summary, the new system consists of the following:

1. An updated list of mandatorily notifiable diseases
2. Standard case definitions of mandatorily notifiable diseases.
3. A new system of disease surveillance systems
4. Systems for immediate and standard notification for each notifiable disease

The new list of mandatorily notifiable diseases consists of 51 diseases, divided into four groups; namely: A, B, C, D.

Group A mandatorily notifiable diseases: Data must be notified to the regional health authorities by all healthcare institutions, including primary healthcare. Most patients with these infections initially present to primary healthcare, and the physician diagnoses and notifies the infection according to the standard case definition. If diagnostic capacity is limited, the patient is referred or refers themselves to a state hospital. The state hospital must then notify the case to the regional health authorities, so that necessary contact tracing can be undertaken, and the source of the infection investigated, with the support of the provincial health directorate.

There are 23 diseases in group A, which includes acute viral hepatitis, AIDS Anthrax, Cholera, HIV, meningococcal meningitis, typhoid fever, rabies and suspected rabies exposure, malaria, measles, mumps, rubella, syphilis, tetanus and tuberculosis.

Group B mandatorily notifiable diseases: Diseases in group B have either never been seen in Turkey or not been present for a long time. However, they are still present in some regions of the world, have high transmission potential and mortality, and three of the diseases, smallpox, yellow fever and plague, are required to be reported according to the International Health Regulations. Any healthcare institution that encounters a possible case must directly notify the Turkish Ministry of Health immediately. The Ministry of Health is then responsible for reporting these at an international level as well as implementing control measures.

The four diseases in Group B are Epidemic typhus, Plague, Smallpox and Yellow fever.

Group C mandatorily notifiable diseases: There are 14 diseases in Group C. Most of them are new additions to the notification system. With the exception of trachoma, they are only under sentinel surveillance. This is because:

- Some of these diseases can only be diagnosed by state hospitals or other specialist institutions or laboratories. The notification done by these institutions is accepted as adequate.
- For diseases such as influenza, notification of each single case is not necessary, but identification of outbreaks and typing of infections is required.

Surveillance of group C diseases is a new and important application in Turkey's healthcare system. Provincial health directorates are responsible for acting on the information generated.

Some examples to the diseases in Group C are Acute haemorrhagic fever syndromes, Congenital rubella syndrome, Echinococcus, *Haemophilus influenzae* type B meningitis, New variant Creutzfeldt-Jakob disease (vCJD), Legionnaires' disease, Influenza and Leprosy.

Group D mandatory notifiable infectious agents: Group D involves the notification of an infectious agent. This is an important innovation that involves the direct participation of laboratories in the notification system. The aim is to get data on the source of communicable diseases that remain a public health problem, and to study the epidemiology of these diseases when necessary. Only laboratories using acceptable diagnostic techniques will be able to notify cases. Group D data are notified to the provincial health directorates who implement actions. Group D surveillance type, with the role of the laboratories at the notification of the A, B, C group diseases, will obtain a working comprehension with quality assurance and standardisation.

There are 9 infectious agents in Group D: *Campylobacter jejuni*, *Chlamydia trachomatis* (as a sexually transmitted infection), *Cryptosporidium*, *Entamoeba histolytica*, Enterohemorrhagic *E. coli* (EHEC), *Giardia intestinalis*, *Listeria monocytogenes*, *Salmonella* (Non-typhoidal Salmonellosis) and *Shigella*.

The information obtained from Group D surveillance, with the role of the laboratories at the notification of the A, B, C group diseases, will be quality assured and standardised.

The former communicable disease surveillance system has been completely replaced by the new system. Healthcare staff throughout Turkey are being trained in the new notification system. A national training meeting and several meetings at provincial level were held, and training materials have included 33 000 manuals, 50 000 CD-ROMS, and 100 000 posters.

Since the development of surveillance and diagnostic capabilities is an important part of comprehensive health systems, and of the BWC regime, Turkey continues regularly to revise its own surveillance systems and to coordinate with WHO and OIE to diagnose and survey international infectious disease threats such as H5N1, (novel) nH1N1 2009 influenza A.

Our activities in this framework are naturally in compliance with IHRs.

Turkey has a Bilateral Cooperation Agreement (BCA) with the World Health Organization Regional Office for Europe.

