

## Health professionals are the cornerstone of public health security



An efficient health security system—based on early detection of risks to the population's health and establishment of operational public health measures—is crucial to population health. In France, the health security system is deemed efficient, as exemplified in 2017 when despite mild symptoms and few cases, the surveillance laboratory system identified contaminated powder milk as the source of a *Salmonella enterica* serovar Agona epidemic, which infected 38 infants,<sup>1</sup> and led to the recall of all identified products from the market.

The world is evolving at an exponential pace, especially with intensive globalisation, climate change, and technical progress. Thus, the risks of tomorrow are new. Accordingly, our system must constantly adapt and innovate to guarantee the public's health. Although some of these issues might seem distant from their daily practice, health professionals are the cornerstone of the health security system. Distributed over territories, they have genuine experience of on-the-ground realities, they are in direct and regular contact with people in hospitals, medical practice, schools, and workspaces; hence, they are the forefront of detection, alert, and first response when adverse public health events occur.

To ensure we respond to tomorrow's public health threats, we need to identify current challenges and adapt the health security system to health professionals.

Surveillance data and notifications are the raw materials for assessing public health risks and implementing appropriate measures. Yet, this fundamental contribution might be compromised if it is perceived as a burden and an obstacle to the clinical activity of health-care professionals. For this reason, the reality of the daily practice of health-care professionals needs to be accounted for when designing notification tools and procedures.

The French Ministry of Health held a conference on Jan 23, 2019, about the essential participation of health-care professionals in the health security system.<sup>2</sup> The conference was also an opportunity to review the use of an online portal, launched in March, 2017, that intended to open up the notification process to individuals and facilitate notifications for professionals.<sup>3</sup> In addition to the 34 mandatory notifiable infectious diseases, a

wide panel of fields for declaration have been added, ranging from adverse health events caused by medical products or practices, to other products such as food supplements, pesticides, or cosmetics. Some areas for improvement have been identified. Because entering information multiple times can be time consuming, there is a need to simplify the process as much as possible by retaining only data relevant to public health emergency management and surveillance. Additionally, professionals would like to receive feedback once notifications have been processed to better understand the usefulness of their contribution. Finally, because the amount of information to analyse is huge, an advanced algorithm would be a valuable addition to detect weak and relevant signals (ie, any information on a health phenomenon or exposure to a hazard, which requires an investigation to validate and whether or not to consider it as an alert) and avoid missing threats to public health.

Beyond notifications, health-care professionals can engage with health security in other ways. They can volunteer to perform their primary function of caregivers during acute moments—eg, the French emergency medical team, established in 2007, can intervene during exceptional sanitary situations—such as the Zika epidemic in 2016. In addition to the operational response network, they can also engage in surveillance networks. For example, the French Sentinelles network<sup>4</sup> is composed of general practitioners and paediatricians and collects and operates clinical surveillance on ten health indicators, of which nine are infectious diseases. Thanks to their epidemic forecasts, the network allows health authorities to prepare early responses. Another important way to promote health security is active prevention, which includes educating people about hygiene measures, healthy behaviours, and immunisation to foster individual-level health and contribute to collective health.

Overall, the technical improvements and the awareness raised here through the French example could foster a shared health security culture among health professionals for them to acknowledge and endorse their keystone role within the health security system.

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