

A network of occupational risk experts for evaluation of unusual workplace health events

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Background

The French Institute for Public Health Surveillance (InVS) monitors the health status of the population according to all health determinants, including occupational risks. To detect occupational health risks and diseases, the institute coordinates epidemiological surveillance programs and implements cluster investigations.

Since several years, we noted an increasing number of unusual workplace health events notified to the InVS but also to other institutions (the University hospital occupational consultations, the Regional medical inspections, the Labor Ministry). Occupational physicians, workers, or syndicates notified such events to several institutions at the same time and they often obtained a variety of different responses to their inquiries. To coordinate the responses, a network of occupational risk experts at regional level was implemented by the InVS.

Objective

The purpose is to organize the evaluation and the investigation of unusual workplace health reported events with a prompt, complete and consensual response of a local network of occupational risk experts, and to detect any unusual clustering.

Methods

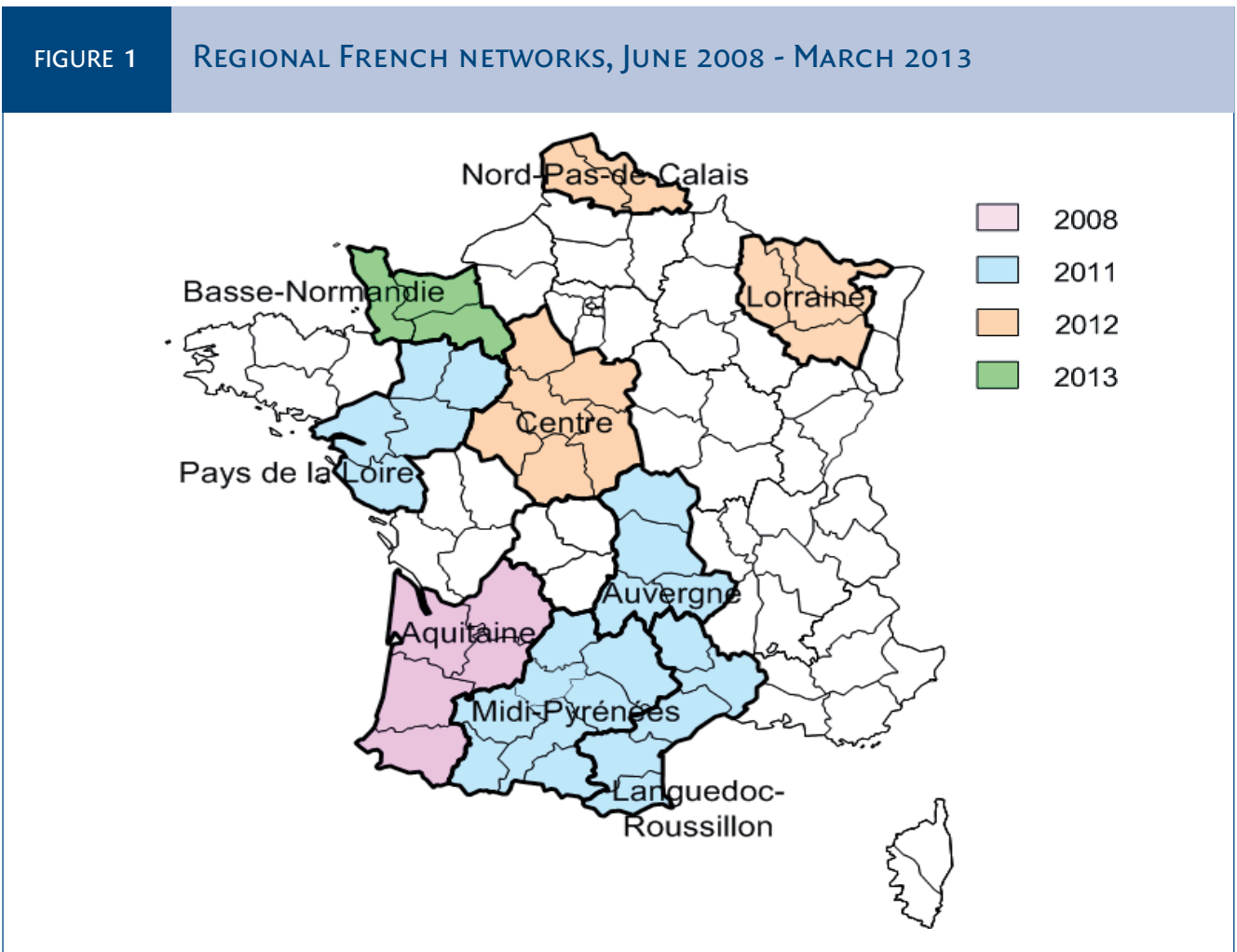
A local network is composed of a labour medical inspector, an occupational physician of the University hospital occupational consultation, and two trained InVS epidemiologists from the regional office and the occupational health department.

An unusual event is defined by any health event considered unusual, occurring in a workplace. This includes clusters of illness or similar symptoms, or unusual exposure that could have a health impact.

When such an event is notified to the regional health emergency platform, the regional office of the InVS, as network coordinator, organizes a prompt conference call with the network experts. According to available information, the experts evaluate the signal and come to a consensual decision about its validation and further investigations. A regular feedback and a systematic final report are provided to the inquirer and to the concerned company including recommendations on control or prevention measures.

Results

The first regional network was implemented in 2008 in the region of Aquitaine (South West France). Since 2011, eight other French regions have been involved (figure 1).



Since 2008, 19 signals have been analyzed, mostly clusters of cancer (n=10) and clusters of no specific symptoms (n=6), such as headaches or irritation, usually associated with sick building syndromes (figure 2). In 2012, unusual exposures to asbestos and chlorinated solvents were reported.

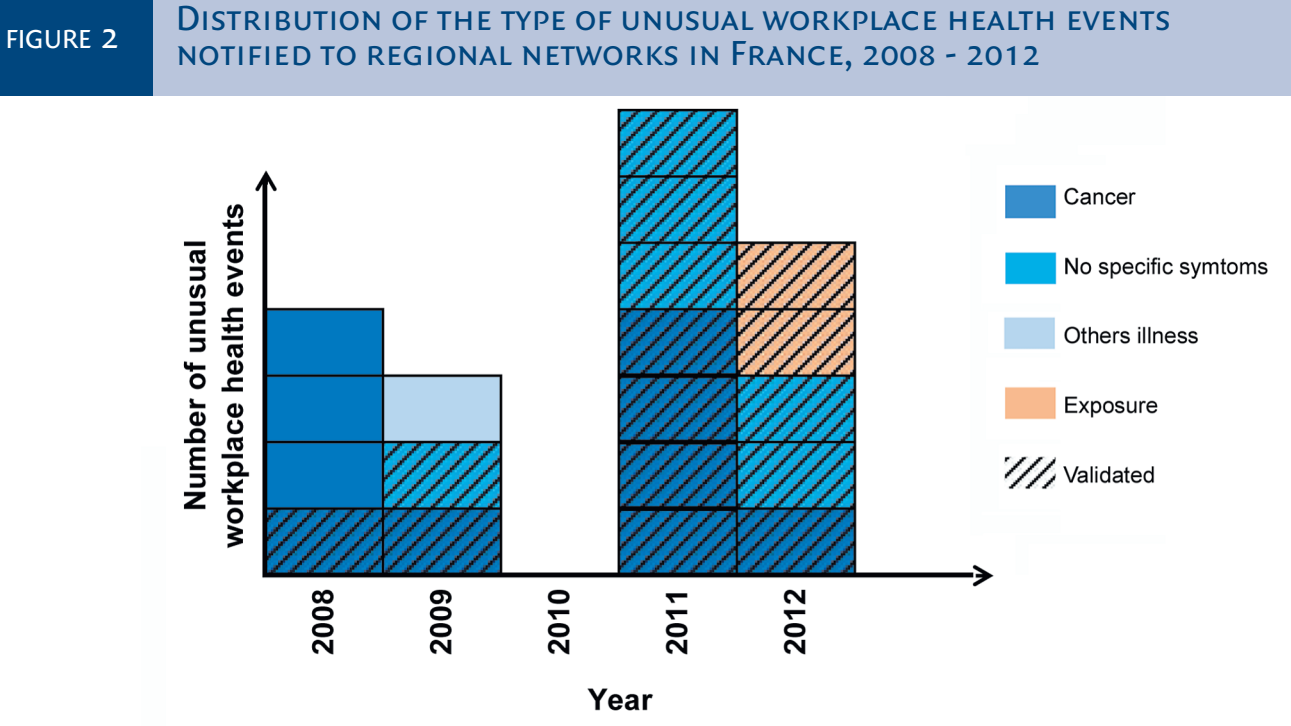


Table below shows various types of signals.

TABLE	DESCRIPTION OF THE SIGNALS NOTIFIED TO THE REGIONAL FRENCH NETWORKS, 2008 - 2012	
	Type of signal	Activity of the company
Illness	Cancer	Breast cancer
		Kidney
		Pancreas
		Various localisations (liver, brain, lung, bone...)
		Thyroid
		Lung
		Various localisations (leukaemia, lymphoma, breast, kidney...)
		Various localisations (lung, digestive, kidney, breast...)
		Pancreas
		Uterin and ovarian
No specific symptoms	No specific symptoms	Throat soreness, headache, tiredness
		Cough, malaise, throat soreness
		Eye soreness
		Headache, malaise
		Headache, cough, tiredness
		Eye soreness, headache, nausea
		Hospital
Other illness	Other illness	Urinary malformation
		Pharmaceutical industry
Exposure	Exposure	Chlorinated solvents
		Asbestos

The conference calls were performed in a timely manner: 50% of them were performed within 7 days (mean of 13 days, range 1 day to 2 months).

The median delay to deliver the formal response (mail or investigation report) was 2 months and varied from 7 days to 1 year in the case of cancer in employees working on a polluted industrial site.

Overall, 15 unusual signals were validated (figure 2). A relation with the occupational environment was rejected for 8 and confirmed for 4 signals. Investigations are still ongoing for 3 signals. Recommendations on prevention and control measures were suggested for all validated signals.

Conclusion

The added value of these networks is the timeliness of a complete response based on a consensual decision. The pooled knowledge of network members allows a more efficient system where experts are simultaneously early informed and feel more comfortable sharing their opinions. Moreover, these regional networks allowed to strengthen the mission of the InVS of health monitoring in collaboration with regional actors involved in occupational health.

Nevertheless, the availability of the experts represents the main limit. Experts must be accessible and reactive towards received signals. Sometimes, evaluations can be complex when events associate workplace and environmental risks, for example people can be exposed by living near an incriminated workplace.

The first years' experiences are positive with an efficient collaboration among different local institutions. Demonstrated added value of these regional networks was a rational response leading to better reactivity, accuracy and efficiency when treating the signals, and potential detection of emerging problems.

A database summarizing all the signals received by these networks is being developed by the InVS, with the objective to constitute an archive of signals and their treatment.