

# Proposal of a Framework for Evaluating Military Surveillance Systems for Early Detection of Outbreaks on Duty Areas

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## OBJECTIVE

The objective of this study was to propose a new framework for evaluating military surveillance systems for early detection of outbreaks. This one was based on the French and UK military real time surveillance systems.

## BACKGROUND

Evaluation is a major topic in order to enhance syndromic surveillance. In May 2004, a CDC working group developed a framework for evaluating public health surveillance systems for early detection of outbreaks [1]. This framework has been used to evaluate some civilian and also some military syndromic surveillance systems, as the French system 2SE FAG (Surveillance spatiale des épidémies au sein des forces armées en Guyane) and the UK system RMS (Real time Medical Surveillance). Those systems have been set up since the 2002 Prague summit [2]. But because the objectives and the functioning of those systems have some military specificities, the current CDC framework was not totally adapted for their evaluation. This study presented a proposal of a new framework for evaluating military syndromic surveillance systems.

## METHODS

The development of a new framework had to take into account the experience obtained after the evaluations made for UK and FR military syndromic surveillance systems. Traditional methods were used as the CDC framework [1], some Knowledge Attitudes and Practice (KAP) surveys, technical audits, ergonomic studies, simulations and multinational exercises. The military specificities had to be integrated in this evaluation program : variability of geographical conditions for missions, especially possibility of deployment in an area without previous knowledge of the local sanitary conditions, high mobility of the armed forces on the field, important turn-over of the service people, increasing multinationality of the external missions with the involvement of more and more nations, necessity of surveillance permanency, necessary compatibility with the commanders information systems, maximal level of security for military and medical data.

## RESULTS

A new framework has been proposed for evaluating military surveillance systems for early detection of outbreaks on duty areas (cf. figure 1).

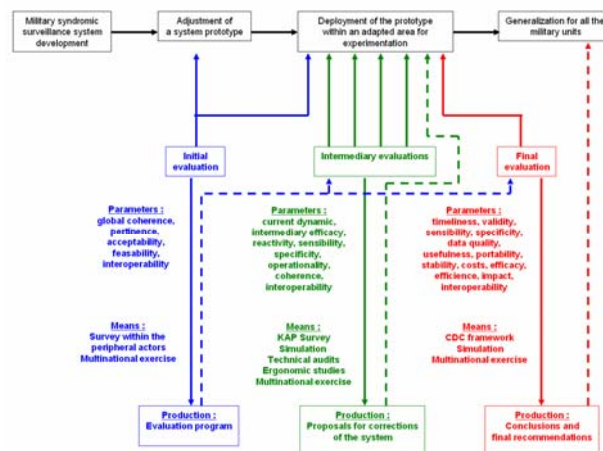


Figure 1 : Proposal of a new framework for evaluating military syndromic surveillance systems.

This framework was made of three main parts: initial, intermediary and final evaluations. For each time of this evaluation method, parameters to be studied have been defined, methods to be used and expected production as well.

## CONCLUSIONS

FR and UK experiences of syndromic surveillance for forces on duty areas permitted to develop a specific evaluation program for armed forces. This proposal constituted a tool usable for all nations which wanted to develop an evaluation program for its military syndromic surveillance system.

## REFERENCES

- [1] Centers for Disease Control and Prevention. Framework for evaluating public health surveillance systems for early detection of outbreaks; recommendations from the CDC working group. MMWR 2005;53: RR-5.
- [2] NATO. Prague summit declaration. Press Release 2002;127.

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