EU/ WHO Mission to Review the Exit Screening Measures at International Airports in Conakry, Freetown and Monrovia

Summary Technical Report

Context

On 8 August 2014, WHO declared the Ebola epidemic in West Africa a Public Health Event of International Concern (PHEIC) and recommended that affected countries should conduct exit screening of all persons leaving the affected countries at international airports, seaports and major land crossings for signs and symptoms of Ebola virus disease (EVD) and for history of exposure to EVD patients. WHO also recommended that known Ebola cases and people identified as contacts of EVD patients should be prohibited to leave an affected country unless the travel is part of an appropriate medical evacuation. The US Centres for Disease Prevention and Control (US CDC) published on 30 August 2014 a detailed guidance document for the development of standard operating procedures (SOPs) for implementing pre-departure/exit-screening in Ebola affected countries.

Aim of the mission

The aim was to review the current exit screening procedures at the international airports in the three West African countries with intense Ebola Virus Disease (EVD) transmission in order to give assurance on compliance with the existing guidelines, the effectiveness of their design and the level of implementation.

The mission was undertaken in response to calls by the Foreign Affairs Council and the European Council following discussions and recommendations of the High-level coordination meeting of EU Health Ministers on 16 October 2014. It is in line with the recommendations in the report of the 3rd WHO IHR Emergency Committee meeting held on 22 October 2014 which stressed that "exit screening in Guinea, Liberia and Sierra Leone remains critical for reducing the exportation of Ebola cases" and that "WHO and partners should provide additional support needed by the States concerned to further strengthen exit screening processes in a sustainable way".

Practical arrangements

The mission took place from 19 to 23 November 2014 and involved officials from the European Commission's Directorate General for Health and Consumers (DG SANCO), the European Centre for Disease Prevention and Control (ECDC), experts from four EU Member States (Belgium, Germany, Sweden and the United Kingdom) and the WHO Regional Office for Europe. The participants were divided into three review teams, one for each of the international airports of Sierra Leone (Freetown), Guinea (Conakry) and Liberia (Monrovia). On the ground, the review teams were supported by staff from the EU delegations and the WHO country offices. The teams interacted closely with locally deployed experts from the US CDC who have been supporting the implementation of exit screening procedures in the respective airports. In Conakry, staff from the French agency for health emergency measures (EPRUS) provided support.

Methods

The assessments in the three airports were based upon a common protocol and risk assessment table involving prior review of guidance documents, SOPs, reports from travellers and EU delegations, media reports etc.

The mostly qualitative review entailed an ascertainment of a detailed process description of the primary and secondary screening procedures, collecting elements of the monitoring process and the current state of implementation of databases as well as collecting information of the follow-up process of passengers who are denied boarding. Organisational aspects including staffing levels and funding were also assessed.

Overview of measures in place

The SOPs are roughly similar in all three countries and effectively translate the guidelines for exit screening.

The exit screening procedures take place at several points as the passengers move through the airports and can be divided into the following steps:

- All people, including passengers, friends and relatives and airport staff, must wash their hands in chlorine solution and have their body temperature measured with handheld infra-red thermometers at the entrance to the airport area. People who arrive in cars and buses are requested to exit the vehicles and walk through the gates where guards check their temperatures.
  - If normal temperature they can proceed
  - If above 37.5°C (38°C in Conakry and Freetown) they are denied entrance.
- Only passengers and airport staff are allowed into the terminal building. Before entering the terminal, everyone is required to wash their hands in chlorine solution and has the temperature taken. All departing passengers are required to complete a Health Declaration Form (HDF) once they are inside the terminal.
  - If normal temperature they can proceed
  - If above 37, 5°C (38°C in Conakry and Freetown)) they are denied entrance.
- The primary screening, which takes place before the check-in, is performed by clinically trained healthcare workers (nurses, final year medical students and physicians). This includes measuring and recording body temperature, assessing passengers for signs of illness, reviewing the HDFs for symptoms and potential exposure, and asking follow-up questions.
  - If normal temperature they can proceed
  - If above 37.5°C (38°C in Conakry and Freetown) passengers are escorted for secondary screening.
  - If the form lacks data, the data is added after asking the passenger. Passengers are also regularly asked the questions on the form for reassurance
  - If the passenger passes the primary screening, the form is stamped and signed by the healthcare worker. In Monrovia, the form is archived at this point while in Conakry and Freetown, the form is returned to the passenger who must present the form at the check-in desk.
  - Passengers are also offered an information sheet on Ebola
- At the check-in desk, airline staff checks that the passenger's temperature is recorded. In Monrovia, the temperature is recorded on a sticker in the passport, while in Freetown the airline staff checks the HDFs and then staple the forms to the boarding pass.
- At the gate, before finally leaving the terminal and boarding the flight, each passenger's temperature is again measured and also recorded on the boarding pass.
  - If normal temperature they can proceed
  - If above the cut-off, the passenger is taken to secondary screening.

Supplementary procedures

Secondary screening

- If needed according to above, the nurse/physician making the findings takes the passenger to a designated room (in practise a container/box, makeshift room) for further evaluation (temperature check, interviews and presence of other symptoms).
- Only a handful of cases have been referred to this level of screening in the three airports and none tested positive for EVD. Travellers with fever above the cut-off are denied boarding for 48 hours, those with others symptoms for 21 days. Further management procedures vary between the sites. Airlines are informed and no extra fees to alter the bookings are charged to passengers.

- A number of airlines have introduced additional temperature checks and hand out forms which they process under their own responsibility.

Observations

The teams confirmed that written procedures were in place in all three airports and observed that all departing passengers were screened in accordance with the SOPs for all observed flights.

In Monrovia and Conakry, a list of identified contacts of EVD patients under surveillance is provided daily to the Civilian Aviation Authority which allows for cross-checking against the names of departing passenger and customers purchasing airline tickets. Passengers on the list of contacts are then denied boarding passes or tickets.

The teams concluded that the likelihood of a febrile passenger being allowed to board a flight is close to nil in all airports.

The following issues are a matter of concern:

- The procedures in place are well functioning, and the performance of the exit screenings are constantly monitored by national authorities and external partners, but the reviewers have concerns about long term sustainability and long term planning of resources needed. This is particularly important when airlines that stopped flying to these destinations will resume flights, resulting in an increased number of passengers to be screened. Already today, the concomitant exit and entry screening for international flights pose some difficulties for the airport authorities. Procedures are not appropriately in place to allow systematic archiving and easy retrieval of the collected HDFs, analysis of the data on the forms or follow up of passengers and this could limit the possibilities of monitoring and reviewing the system over the longer term.
- Sufficient internal quality control mechanisms and processes for long term evaluation of compliance are not fully in place, although most issues are discussed at the regular review meetings on the operations conducted by the relevant authorities.
- The procedures for managing febrile or otherwise symptomatic passengers who are denied boarding after secondary screening require further development. Passengers who are screened out must be referred to adequate and safe health care facilities with proper ambulance transportation and with a reasonable period between start and confirmation of diagnoses.
- The facilities for secondary screening in the airports would benefit from upgrading.

The teams noted strong commitment from the national authorities and staff involved to thoroughly implement the procedures, without exceptions.

Conclusions

The review teams found a very high level of implementation of the SOPs in all three airports. The national authorities have developed the SOPs in close consultation with experts from the US CDC, and the SOPs represent an effective implementation of the WHO interim guidance of 6 November 2014.

While there are slight differences in the practices between the three airports, none of these are considered to impact the effectiveness of the screening process.

Based on all evidence examined, including observations, interviews with implementing staff, advisors and other staff working in the countries as well as civil aviation authorities, the review team states that, with the current level of compliance, no traveller is likely to board an international flight without first having been screened. The procedures in place are likely to detect travellers with fever above the cut off set in the guidelines. The audit team can give reasonable assurance on the effectiveness of the measures in place to prevent persons with symptoms consistent with Ebola Virus Disease from boarding a plane.

It is furthermore assessed that the critical element of the procedures at Freetown, Conakry and Monrovia is the presence of clinically trained staff at the first point of screening, which is likely to increase the chances of identifying an ill traveller at primary screening. This is likely to compensate for uncertainties regarding the accuracy of the information given by passengers in the health declaration form. The repeated temperature measurement during the stay in the airport is also likely to reduce the chances of a passenger succeeding in concealing a fever by taking antipyretics.

Recommendations

The review team makes the following recommendations for mitigating the assessed risks in relation to the current exit screening process:

- The secondary screening facilities should be upgraded in terms of isolation, space, lighting, etc. in order to allow for a thorough examination by a health care worker in PPE of a passenger suspected to be infected with Ebola virus on the basis of history of exposure, signs and symptoms. Safe and rapid transfer by ambulance to an adequate healthcare facility needs to be available.
- In order to increase sustainability, long-term strategic planning and integration with other existing, wider health activities is required. Recalling that in this context, several operational risks were identified such as lack of secured long term funding, uncertainties about the availability of clinically trained staff and high level of dependency of external support for the operation, it is proposed to develop an action plan for how the screening processes should be supported until the end of 2015 for each airport, with a clear identification of further objectives and milestones, description of the tasks and roles of partners committed including identification of human resources to be engaged, procurement of supplies and rolling out of training programme including drills and exercises, as necessary, based on a needs assessment and on regular evaluation. The planning should also encompass the development and implementation of monitoring and quality assessment tools.
- All airports should develop a SOP for the handling of the data on the HDF since it is important that the data access is secured while remaining available for future evaluation of the effectiveness of the exit screening.
- Operations are likely to benefit from increased sharing of experiences and results between the three airports. This can be achieved through increased networking between the three sites and through the development of integrated evaluation and monitoring tools and processes.
- The EU and its Member States should consider seconding experts to the airports in order to help to maintaining and improving the screening process at all sites. Such support should be closely coordinated with national counterparts and international partners and other stakeholders.

Further work to evaluate and upgrade the current procedures could be envisaged by the EU in the framework of the established collaboration with the WHO, US CDC, ICAO.

References

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