AIRSAN – Coordinated action in the aviation sector to control public health threats

Work package 4

Guidance Document

Contact Tracing – Collaboration between the Public Health and the Aviation Sector

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Content

Abbreviations

API	Advance Passenger Information
CAPSCA	Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation
EC	European Commission
ECDC	European Centre for Disease Prevention and Control
EU	European Union
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IHR	International Health Regulations
MDR	Multidrug-resistant
MERS-CoV	Middle East Respiratory Syndrome Coronavirus
MS	Member State
NFP	National Focal Point
PHA	Public Health Authorities
PLC	Passenger Locator Card (now called Passenger Locator Form)
PLF	Passenger Locator Form
PNR	Passenger Name Record
RAGIDA	Risk Assessment Guidance for Infectious Diseases transmitted on Aircraft
SARS	Severe Acute Respiratory Syndrome
SOP	Standard Operating Procedure
WHO	World Health Organization
XDR	Extensively drug-resistant

Definitions

Aircraft: means an aircraft making an international voyage (1).

Airport: means any airport where international flights arrive or depart (1).

Arrival: means the arrival of an aircraft at an airport (1).

Competent authority: means an authority responsible for the implementation and application of health measures under the International Health Regulations (2005) (1).

Contamination: means the presence of an infectious or toxic agent or matter on a human or animal body surface, in or on a product prepared for consumption or on other inanimate objects, including conveyances, that may constitute a public health risk (1).

Crew member: means persons on board a conveyance who are not passengers (1).

> **Cabin crew member:** A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a pilot (2).

> **Pilot:** A crew member licensed to manipulate the flight controls of an aircraft during flight.

Departure: means, for persons, baggage, cargo, conveyances or goods, the act of leaving a territory (1).

Disease: means an illness or medical condition, irrespective of origin or source, that presents or could present significant harm to humans (1).

Event: means a manifestation of disease or an occurrence that creates a potential for disease (1).

Health measure: means procedures applied to prevent the spread of disease or contamination; a health measure does not include law enforcement or security measures (1).

Ill traveller: means a person undertaking an international voyage suffering from or affected with a physical ailment that may pose a public health risk (1).

Infection: means the entry and development or multiplication of an infectious agent in the body of humans and animals that may constitute a public health risk (1).

Passenger: a person who is traveling in an aircraft.

Personal data: means any information relating to an identified or identifiable natural person (1).

Public health risk: means a likelihood of an event that may affect adversely the health of human populations, with an emphasis on one which may spread internationally or may present a serious and direct danger (1).

Risk assessment: is a systematic process for gathering, assessing and documenting information to assign a level of risk. Risk assessment includes three components — hazard assessment, exposure assessment and context assessment (3).

Suspect: means those persons, baggage, cargo, containers, conveyances, goods or postal parcels considered by a State Party as having been exposed, or possibly exposed, to a public health risk and that could be a possible source of spread of disease (1).

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Members of the AIRSAN Team of work package 4 were responsible for developing the present document. All AIRSAN Partners were invited to support the development of this AIRSAN Guidance Document by providing their input to the preparation and review of the guidelines. All contributions are gratefully acknowledged.

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Experts with declared interests

All 43 contributors listed above were asked to state any declared interests in the past 4 years in written format. No interests besides the interests of the institution the AIRSAN Partner is representing due to his or her professional affiliation were declared by 35 persons handing in a declaration of interest from.

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1. Introduction

The AIRSAN Guidance Document "Contact Tracing – Collaboration between the Public Health and the Aviation Sector" aims to create a better understanding on diverging and joint positions of public health authorities (PHA) and airlines in the area of contact tracing. This document may positively contribute to intersectoral cooperation and to finding a common best practice of performing contact tracing.

The contents are based on several existing documents concerning the performance of contact tracing developed by World Health Organization (WHO), European Centre for Disease Prevention and Control (ECDC), International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA) (see list of references). In addition, the expertise of professionals in the aviation sector has been obtained to constitute the existing rationales and possibilities of public health authorities and airlines. The given guidance will be tested in a scenario-based exercise developed as AIRSAN Training Tool to support the implementation of AIRSAN Guidance Documents, the EU-Decision No 1082/2013/EU (4) and the International Health Regulations (IHR) (2005) (1) in EU Member States.

Key questions regarding contact tracing from the perspective of the different involved actors will be discussed: the perspective of public health authorities and the position of airlines. Finally, a joint perspective for public health authorities, airlines and airports is shown and a joint mission statement of recommended common best practice is formulated.

2. One aim - many perspectives

Contact tracing is defined as "*….an investigation procedure aimed at acquiring contact information in order to approach contacts that were potentially exposed to pathogens*" by the RAGIDA guideline (5) and as "*measures implemented in order to trace persons who have been exposed to a source of a serious cross-border threat to health, and who are in danger of developing or have developed a disease*" the Decision 1082/2013/EU on serious cross border threats to health (4).

Daily practice shows that contact tracing remains a controversial topic. Public health authorities need to have a strong rationale to initiate contact tracing. If a public health authority came to the decision to perform contact tracing, a resource intensive process starts. One recurring obstacle is that airline operators as well as travel agencies are not able to provide adequate contact data from affected passengers in time.

Nevertheless, it is assumed that the actors involved (airlines, airports and public health authorities) share the same interest: to ensure safe and healthy air travel for passengers which are travellers and crew members. While on the one hand it is important to give travellers confidence that attention is paid to their health, on the other hand it is also central not to bother them through contacting without good reason. The challenge is to meet the requirements of both aspects.

3. Methods

The AIRSAN work package 4 (WP4) members by the Robert Koch Institute took a lead on preparing the AIRSAN Guidance Document on Contact Tracing.

Additionally all the other AIRSAN Partners contributed to this document: they represented public health authorities, airports, airlines and key international organizations like the European Aviation Safety Agency (EASA), the European Commission (EC), the European Centre for Disease Prevention and Control (ECDC), Eurocontrol, the International Air Transport Association (IATA), the International Civil Aviation Organization (ICAO) and the World Health Organization (WHO).

All persons contributing their expertise to the document were asked to fill in a declaration of interest form. Only interests other than those coming from the organization the person was affiliated to within the past 4 years were accepted as declared interests. No such interests were declared.

The topic "Contact Tracing – Collaboration between the Public Health and the Aviation Sector" was identified as a priority area by the AIRSAN Guidance Documents Survey (see "AIRSAN Guidance Documents Survey Report") conducted in September 2013 and by the AIRSAN Prioritisation Survey (see "AIRSAN Prioritisation Survey Report") conducted in January 2014. The Surveys aimed to define the need of clear or improved

guidance and to further set up the steps regarding which documents should be developed within the AIRSAN Project. The topic "Contact tracing: cooperation between airlines and health authorities" was ranked as the highest important one.

The AIRSAN WP4 Team of WP4 shared the first draft with the AIRSAN Partners prior the AIRSAN Interim Meeting in June 2014, where the draft was critically appraised. After the meeting, a second draft was circulated and opened for feedback per e-mail.

4. Key questions

4.1. Perspective of public health authorities

The following key questions intend to indicate responsibilities, rationale as well as feasibility of actions for public health authorities when initiating contact tracing.

4.1.1. Why do public health authorities perform contact tracing?

The main aim of performing contact tracing is to prevent secondary (additional) cases of infectious diseases. From a greater epidemiological perspective, contact tracing prevents the further spread of infectious diseases in populations.

One way to contract an infectious disease is by coming in contact with a person who is suffering from an infectious disease.

When a passenger suspected of currently contracting an infectious disease (so-called "index patient") is reported to a public health authority, it is the responsibility of the public health authority to find out whether any other people are at risk of acquiring the disease and if contact tracing is needed. Contact tracing is not an automatic procedure, on the contrary, public health authorities need to have a strong rationale to initiate contact tracing. Factors like severity of the disease, the infectiousness of an index patient during a flight and the possibility to prevent secondary cases by appropriate measures are assessed. For example, severe infectious diseases not endemic in a specific country or only occurring rarely such as viral haemorrhagic fevers, MERS-CoV, MDR-/ XDR-tuberculosis are under special focus. Aspects of international and national elimination strategies for special diseases (e.g. measles) are taken into account.

How feasible it is to reach the identified contact persons often depends on the specific location where an exposure occurred: while communication might be easily established with household contacts, passenger contacts on aircraft are usually harder to find. Whereas contact information on household contacts may be directly provided by an index patient, the public health authority needs to contact an airline responsible for the respective flight in order to obtain contact information on passengers and crew members.

International regulations support the performance of contact tracing.

According to Article 23 of the IHR (2005) (1), for public health purposes, on arrival and departure of an aircraft, a State Party may require with regard to travellers: *"information concerning the traveller's destination so that the traveller may be contacted (…)"*. Above that, according to Article 18 of the IHR (2005) (1), recommendations issued by WHO to States Parties may include to "*implement tracing of contacts of suspect or affected persons"(1).*

The Decision 1082/2013/EU on serious cross-border threats to health (4) lays out in the recital: *"The consequences could require the Member States concerned to take particular control or contact-tracing measures in a coordinated manner to identify those persons already contaminated and those persons exposed to risk. Such cooperation could require the exchange of personal data through the system, including sensitive information related to health and information about confirmed or suspected human cases of disease, between those Member States directly involved in the contact-tracing measures."*

Therefore, both the EC and the WHO indicate that contact tracing and the associated investigation of individuals, who may have been exposed and may be at risk of developing a disease, are important elements of public health investigations. Still, the exact procedures heavily rely on existing national systems and laws, especially in respect to personal data protection.

4.1.2. What criteria do public health authorities consider before initiating contact tracing?

In the EU, most countries follow the "*RAGIDA - Risk Assessment Guidelines for Infectious Diseases Transmitted on Aircraft – Part II*", published by the ECDC (6-8), risk assessments (e.g. for MERS-CoV (9)) published by the ECDC, or, in case of Tuberculosis, the "*Tuberculosis-and-air-travel*" document issued by the WHO (10). These guidelines provide a strong rationale to the initiation of contact tracing based on existing evidence from peer-reviewed publications and expert opinion. Accordingly, public health authorities perform contact tracing exclusively in situations when it is indicated e.g. when the risk assessment signals that travellers, who have been exposed to a severe communicable disease e.g. tuberculosis, could be prevented from developing the disease.

However risk assessments procedures and criteria vary between the sovereign Member States often leading to different results. Also each event, where an exposure occurs, is unique and requires specific risk assessment. A risk assessment depends on the epidemiological situation in the country and the specific exposure situation.

Specific criteria to support decision making whether contact tracing is needed are (5):

- Infectiousness of an ill traveller

- Timeliness of information on diagnosis

- Duration of exposure of contact persons

- Incubation period of the disease

- Potential transmissibility in the context of air travel (e.g. sexually transmitted diseases excluded)

- Person-to-person transmissibility

- Outbreak potential

- Pathogenicity

- Likelihood of starting a new transmission cycle when imported to the EU (if newly introduced)

- Ability and justification for disease containment

For example the RAGIDA risk assessment criteria for tuberculosis are (8):

"Contact tracing should be considered:

- *if the index case is confirmed as having infectious pulmonary tuberculosis (positive smear microscopy in a sample of spontaneously produced or induced sputum, or a sample from bronchoalveolar lavage);*

  AND

- *there is evidence of transmission to other contacts (refers to cases with evidence of transmission in household or other close contacts);*

  AND

- *the duration of the flight is longer than eight hours;*

  AND

- *the time elapsed between flight and diagnosis of the case is no longer than three months."*

4.1.3. Which travellers on board an aircraft carrying an ill traveller need to be traced?

Public health authorities perform a risk assessment on the basis of specific criteria (further information can be found in section 4.1.2.) to determine which travellers should be included in the contact tracing. The outcome depends on a number of factors like the severity of the disease and the existing level of infectiousness.

Not all passengers who were in contact with a fellow passenger suffering from an infectious disease need to be traced. For instance, contact tracing is not required for travellers in contact with a passenger suffering from seasonal influenza without increased virulence or an infectious disease which cannot spread within the aircraft (e.g. vector-transmitted diseases such as malaria). Even if contact tracing isn't required, medical care might still be necessary during the flight (see IATA Guidelines) or upon arrival.

In case contact tracing is required the RAGIDA criteria define which passengers need to be traced, for example in case of a tuberculosis event (in accordance with the respective WHO guidelines) (6, 8, 10):

- *"We recommend limiting contact tracing to passengers sitting in the same row, two rows ahead and two rows behind the index case in accordance with the WHO guidelines. The exposure of the cabin crew is generally less intensive and should be assessed by the airline's medical service."*

  […] "In large aircraft with many seats per row, it might be useful to consider that the risk of transmission is likely to be highest within two seats of the index case"

In case of an Ebola virus event, contact tracing is recommended for (in accordance with the WHO "Travel and transport risk assessment: Interim guidance for public health authorities and the transport sector" document) (11):

- Passengers and crew with reported direct contact

  "To gather this information, any records of significant events on the flight should be obtained from aircraft operator. Co-travellers and crew members who report direct body contact with the index case should undergo contact tracing."

- Passenger seated adjacent to the index case

  "As direct contact is the main route of transmission for Ebola virus, only passengers who were seated adjacent to the index case on the side, in front or behind, including across an aisle, should be included in contact tracing."

- In addition staff cleaning the affected aircraft

  "If the case is suspected or diagnosed after the passenger has left the aircraft , the staff who cleaned the section and seat where the sick passenger was seated (or the toilet or any soiled part of the aircraft, if the patient experienced vomiting or diarrhoea during flight) without wearing the personal protective equipment (…) should also undergo contact tracing."

4.1.4. Which data do public health authorities need to perform contact tracing?

Overall, there is no evidence what proportion of airlines can provide adequate data for public health authorities to perform contact tracing of passengers. Practical experience shows that public health authorities often fail to retrieve adequate data for contact tracing purposes from airlines (7).

In case contact tracing is necessary public health authorities need the following data from the respective passengers for a successful contact tracing (listed in the passenger locator form (PLF) (12)):

- Flight information (airline name, flight number, seat number, date of arrival)

- Personal information (last name, first name, sex)

- Accurate and valid data allowing to contact the concerned person, such as:
    - Phone numbers (mobile, business, home) and/or e-mail address
    - Residence address information at period relevant to event

In case the booking of the flight was done via a travel agency, contact information of the appropriate travel agency is necessary to trace the affected passengers.

According to the Decision 1082/2013/EU on serious cross-border threats to health (4) the EC is about to give *"a recommendation providing an indicative list of the personal data that may be exchanged for the purpose of the coordination of contact tracing measures."*

4.1.5. Why is the use of the passenger locator form recommended?

From a public health perspective, a standardised format is helpful to quickly get adequate passenger information. For collecting relevant contact details (listed below) and to assist contact tracing, a standardised so-called passenger locator form (PLF) has been developed by WHO (12). The ICAO "Guidelines for States Concerning the Management of Communicable Disease Posing a Serious Public Health Risk" (13) lines out that the PLF "*provides an appropriate method of rapidly collecting traveller contact information: aircraft operators should determine if the PLCs (passenger locator card)* [1] *will be kept on board, or at all destination airports. Depending on the specific hazard, the number of PLCs needed may vary, from a few to one for each traveller*". That means it depends on the communicable disease and its infectiousness as well as the respective mode of transmission if PLFs are necessary only for the travellers with close contact to the index case or for each traveller (passenger and crew) on board.

The PLF requests an adult member of each family to complete information on:

- Flight information (airline name, flight number, seat(s) number, date of arrival)
- Personal information (last name(s), first name(s), sex(es))
- Phone numbers (mobile, business, home) and e-mail address(es)
- Residence address information
- Temporary addresses information
- Emergency contact information of someone who can reach the traveller(s) during the next 30 days
- Information on travel companions (family and non-family)

If it is not possible to fill in the PLF, the minimum information required is:

- Flight information (airline name, flight number, seat(s) number, date of arrival)
- Name, e-mail or phone number and temporary address for the next 48 hours

WHO and ICAO advocate the use of the PLF and propose that "*the use of passenger locator forms should be promoted by both the air industry and public health*" (14). IATA participated in the development of the PLF and accepts its use but has always considered it to be an interim measure that should eventually be replaced by an electronic method under the responsibility of public health authorities.

ICAO recommends in its "*Template for a National Aviation Public Health Emergency Preparedness Plan*" (15) that "*Airlines shall liaise directly with the responsible agency for initial supply and replenishment of the required forms.*"

4.1.6. Who has access to the passenger locator form templates?

The PLFs are publically available in the 6 official UN languages English, French, Spanish, Russian, Arabic and Chinese (for example, at the CAPSCA Website: http://www.capsca.org/CAPSCARefs.html).

ICAO suggests in the *ICAO Health-Related Documents* (16) that "*States make available adequate stocks of the Passenger Locator Card, for use at their international airports and for distribution to aircraft operators, for completion by passengers and crew.*"

In the Guidelines for Cabin Crew (17) the IATA recommends that "*Unless stated otherwise by ground medical support or public health officials, ask all travellers seated in the same row, 2 rows in front and 2 rows behind the sick traveller to complete a passenger locator card if such cards are available on the aircraft or at the arrival station."*

Accessibility of PLFs is under the responsibility of the competent public health authority. The competent PHA can arrange with the airport that the PLFs are stored by the emergency manager of the airport. Furthermore,

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[1] Now called Passenger Locator Form (PLF)

airlines can individually decide where they store PLFs (normally at the stations where they operate or in the aircraft).

4.1.7. Who will have access to the completed passenger locator forms?

In case cabin crew members manage to have PLFs completed during a flight they need to collect and supply them to the competent public health authority after landing.

If the PLF is completed upon arrival, the distribution of PLFs and the collection of the completed PLFs are under the responsibility of the competent public health authority.

4.1.8. How quickly do public health authorities need the data to perform contact tracing?

In general, public health authorities need passenger data promptly which means without any significant time delay. The time slot open to initiate and perform contact tracing depends on the incubation period of the specific disease involved and the time left to apply public health measures like chemoprophylaxis or vaccination. This time slot starts from the exposure in the aircraft and ends after successful implementation of the respective public health measures.

The specific actions that need to be completed are:

- Event detection

- Event notification and description

- Event assessment

- If required, public health authority request of appropriate passenger contact information from the airline operator (more information can be found in section 4.2.4)

- Receipt of appropriate contact information (from airline to public health authority)

- Establishment of contact with affected passengers followed by information, advice and potentially an appointment for a medical assessment

- Where appropriate, application of prophylaxis or other public health measures

For most infectious diseases, the incubation period and the time left to apply public health measures is short, therefore the contact information needs to be available promptly.

For instance, for measles, post-exposure-vaccination should be applied within 3 days after exposure; for meningococcal disease within a maximum of 10 days after exposure.

For few infectious diseases, the incubation period and the specific time frame to apply public health measures is longer: for instance for tuberculosis passenger tracing might be effective up to 3 months after exposure.

4.1.9. How do public health authorities handle personal data?

Treatment of personal data is regulated by national and international law. According to Article 45 of the IHR (2005) (1):

1. *"Health information collected or received by a State Party pursuant to these Regulations from another State Party or from WHO which refers to an identified or identifiable person shall be kept confidential and processed anonymously as required by national law.*

2. *Notwithstanding paragraph 1, States Parties may disclose and process personal data where essential for the purposes of assessing and managing a public health risk, but State Parties, in accordance with national law, and WHO must ensure that the personal data are:*

   a. *processed fairly and lawfully, and not further processed in a way incompatible with that purpose;*

   b. *adequate, relevant and not excessive in relation to that purpose;*

   c. *accurate and, where necessary, kept up to date; every reasonable step must be taken to ensure that data which are inaccurate or incomplete are erased or rectified; and*

   d. *not kept longer than necessary."*

Several EU legislations regulate the treatment of personal data in the EU, as outlined in the recitals of the Decision 1082/2013/EU on serious cross-border threats to health (4). Article 16 of the respective EU Decision specifically regulates the protection of personal data within the European Early Warning and Response System (EWRS).

Notification of persons suffering from communicable diseases to the public health authorities is a legal obligation and does not contradict data protection legislation. Public health authorities are required to treat records of infectious disease notifications confidentially. To limit the spread of a disease, a PHA can also identify and contact persons who have been exposed, or possibly exposed, to a public health threat and who could be a possible source of spread of a disease.

4.2. Perspective of airlines

The following key questions indicate the responsibilities, rationale and feasibility of actions for airline operators when asked by a public health authority to support contact tracing.

4.2.1. What passenger data do airlines have?

Airline operators have access to contact information from their travel booking systems, the so-called Passenger Name Record (PNR) data. In specific circumstances, additional data from the border control systems are available, the so-called API (Advance Passenger Information) data.

Table 1 describes the commonalities and differences of the two data sources more specifically.

Table 1: Passenger Name Record (PNR) data and Advance Passenger Information (API) data as contact information sources in the context of passenger tracing

Characteristics	PNR	API
Primary purpose and user	Reservation data for the operating airline; 13 States currently require access to PNR (18)	State system for immigration control for the competent authorities of border control currently used by approximately 70 States (18)
Contents	Variable information, electronic itinerary may include information about the passenger him/herself, but in some cases only contact information about the travel agency booking the flight: • Name / First name/ Travel agent contact information • Address of residence • Telephone number • E-mail address • Flight details	Biographical data: • Name / First name • Date of birth • Nationality • Identification number/ Passport number • Sex • Explicit assignment to a flight
Validity	Data are not necessarily validated	Data are validated
Specifications for data structure	Data structure depends on booking system	Data structure and content are determined by national provisions
Data consistency	Content can vary widely between airlines	Data are specific and consistent
Personal reference	One record may include individuals, groups, companies or travel agencies	One record always related to one person
Regulation	PNR data are not regulated by governments	API data are regulated by national governments
Duration of data storage	Not defined by law	Defined by specific national law
Transfer of data to authorities	Data must be provided on request to health authorities	Data can be passed in duly justified cases to state authorities

PNR data are collected solely for the purpose of airline operations and in many cases the PNR data do not include telephone numbers and addresses. In many circumstances, the PNR will only have names and nationalities data useful for the public health authorities. Some countries have the possibility to obtain contact information for passengers from passport numbers (10), but many do not. Even though a telephone number is

often requested in context of the flight booking procedure this is not a requirement and the accuracy of the information provided is not known. Therefore passengers are often difficult to locate using the PNR data (10).

In case a PHA identifies a public health threat and therefore requests contact information of passengers from an airline, the airline operator has the responsibility to ensure the timely transmission of the best available data to the respective PHA.

PNRs are individual airline tools, so, while the basis of PNRs is similar, the information may vary significantly from one airline to the other. API data are standardized.

ICAO states as recommended practice that "… *Contracting States requiring Passenger Name Record (PNR) access should conform their data requirements and their handling of such data to guidelines developed by ICAO."* (19).

4.2.2.   How long do airlines store passenger data?

The duration of PNR data storage by the airlines is not defined by law. That means airlines are not required to retain PNR after the flight and do not maintain records of passengers' addresses, telephone numbers or emergency contact information (except for passengers enrolled in "frequent flyer" programmes).

Normally airlines hold their data online only for a specific period of time. Afterwards the data is archived offline and therefore more difficult to access.

The storage of API data depends on national law.

IATA recommends that, in context of emergency response planning and station management, copies of all passenger manifests are kept for the minimum period recommended by the public health authorities for the respective emergencies (20). It is also recommended as part of operations control that departure control provides a Passenger Name List and PNR data in paper version for the flight (20).

In order to perform contact tracing, the passenger name list should be stored for 3 months.

4.2.3.   How quickly can airlines provide the requested data?

The amount of time an airline needs to provide the requested data depends on the airline, the type of the event and the time already elapsed between the flight and the request of a passenger list. As part of preparedness planning, the competent PHA and the operating airlines need to assess this time span best before contact tracing is necessary. Airlines hold their data online only for a specific period of time. As soon as the data are offline, it takes longer to make them available to the requesting PHA.

4.2.4.   How should the public health authority contact an airline in order to collect passenger data for contact tracing?

The public health authority should initially contact the Medical Service or the Emergency Call Centre of the airport of arrival of the flight, if there is one. If not, the reservation office could be contacted and would redirect the call as required. If possible, since obtaining the appropriate airline focal point contact details may not always be a rapid process, the PHA responsible for an airport should establish a communication structure with a respective contact person before contact tracing is required.

To contact an airline directly, the public health authority has several options:

- The PHA can directly contact the Airlines Operation Control Centre (AOCC) also known as System Operations Control, Global Operations Centre or Network Operations Centre. This is a central organised facility run by every airline.
- At local airports the airlines often have airline handling agents in charge.
- Additionally, it is possible to contact an airport operator of the relevant airport to get information regarding a contact person of the relevant airline.

4.2.5. Where are template paper forms of the passenger locator forms stored?

Accessibility of PLFs is under the responsibility of the competent public health authority. The availability of PLFs at the airport should be arranged by an emergency manager of the airport.

There are no standard operating procedures on the storage of PLF templates by airlines. Some airlines routinely carry a set of PLFs on board an aircraft as part of the medical equipment for PH events. Other airlines only have PLFs on board in case of a crisis. In case PLFs are not available on board an aircraft when they need to be completed, the competent PHA needs to ensure the distribution of the PLFs.

5. Joint perspective of public health authorities, airlines and airports

5.1. Joint mission statement

Cooperation between public health authorities and operating airlines in the EU-region needs to be established before the need for contact tracing occurs. Basically, two different scenarios need to be considered when thinking about contact tracing: either a passenger with a suspect communicable disease is identified on board an aircraft and "ad-hoc contact tracing" is possibly required, or, a passenger is diagnosed with a communicable disease after arrival of the aircraft and a "retrospective contact tracing" needs to be implemented. In the majority of cases a "retrospective contact tracing" will be applied; hence, good quality contact details of passengers are needed.

5.2. General points

- The list of IHR national focal points is available to the national focal points of each country; the list of competent authorities for contact tracing investigations should be available and updated at the national level (10).

- The IHR national focal points' roles and responsibilities differ from country to country. Competent authorities and stakeholders at an airport need to share their contact details as part of emergency planning. It is the responsibility of the competent PHA of the airport to have 24/7 access to the list of the national IHR focal points (e.g. via the national or if applicable regional competent authorities).

- Good relationships and clear agreements between responsible PHA and airline operator may stimulate a successful contact tracing. This could be supported e.g. by the performance of regular joint exercises and the joint establishment of standard operating procedures (SOPs).

- The timely notification of passengers and crew of a suspected or confirmed case of communicable disease relies on efficient and accurate communication between the competent PHAs, airline operators , airport operators and other public agencies (10).

- Personal data protection requirements must be applied at all stages of contact tracing (1, 4).

5.3. Ad-hoc contact tracing

- At the arrival airport all travellers on the aircraft should follow the local public health procedures regarding the need for health information including completion of PLF or other documents, if not already done, and further checks.

- For the purposes of tracing persons who may have been exposed to a communicable disease or material and who are still on board an aircraft or at the airport, the MS should accept the standardised PLF as document for collecting contact information.

- In order to ensure appropriate care for affected travellers and to avoid flight delays as well as to minimize any inconveniences for the travellers exposed, the cabin crew should initiate contact identification as soon as a passenger with a suspect communicable disease is identified on board:

  o For collecting relevant contact details the PLF should be used as advocated by ICAO and WHO (available at http://www.capsca.org/CAPSCARefs.html).

  o Also the index case should complete a PLF.

  o If such forms are not available on board, they should immediately be provided and completed at the arrival airport in order that travellers may be located at a later date by public health authorities (15, 17, 21, 22).

  o If in doubt of syndromic presentation and use of PLF, the pilot should report it through the ATS as soon as the doubt arises as per the ICAO requirements (16). This will set the risk assessment process in motion.

  o If cabin crew members could not identify contact persons on board the aircraft, the competent PHA should identify contact persons and ask them to fill in a PLF at the airport.

- To assess the health condition of an ill traveller, ground medical service provides first care to the patient and ensures the transport to a designated hospital.

- The collected PLFs need to be handed over to competent public health authority and also any additionally available information on affected passengers for follow-up of contacts (10).

5.4. Retrospective contact tracing

- In accordance with the ICAO "*Guidelines for States Concerning the Management of Communicable Disease Posing a Serious Public Health Risk*" (13) airlines should, if a country requests information related to the traveller's destination (so that the passenger can be contacted) and information concerning the traveller's itinerary from an airline (and this information is held by the airline), comply with such a request in a timely manner, and cooperate fully with public health authorities in providing other relevant information it may hold. This is also in line with Article 23 of the IHR (2005) (1).

- To facilitate the timely release of such information the country should submit a written request including a reference to the appropriate legislation under which the request is made (10, 13, 14).

- To reduce delays and potential misunderstandings concerning what data is available and in what timescale, the NFP should establish communication with aircraft and airport operators prior to an event and maintain up to date contact information with the operators.

6. Conclusions

Airline operators and public health authorities share the same interest: they want to ensure safe and healthy air travel for travellers and crew members.

From time to time, contact tracing measures needed to be initiated to contain the spread of a communicable disease. To be prepared for contact tracing, airline operators and public health authorities should regularly meet to understand each other's point of view, to discuss the possibilities, to develop joint procedures and to train those.

This AIRSAN Guidance Document shall foster the cooperation between public health authorities and airlines in the context of contact tracing, by explaining the needs and limitations of all partners in order to ensure a successful and adequate response to prevent the spread of communicable diseases in air transport.

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