

ECDC TECHNICAL REPORT

Considerations relating to passenger locator data, entry and exit screening and health declarations in the context of COVID-19 in the EU/EEA and the UK

12 June 2020

Key message

- The availability of passenger locator data, particularly for airline passengers, is extremely important for the success and effectiveness of contact tracing operations for communicable diseases. In the context of the ongoing COVID-19 pandemic, contact tracing is one of the most important public health activities which, in conjunction with testing and active case finding, can help to minimise the risk of new cases being introduced into new areas or areas with low incidence.
- In order for contact tracing to be successful and efficient, passenger locator data should become available to the public health authorities as soon as possible after the identification of a confirmed case among airline passengers.
- Current evidence indicates that entry and/or exit screening at ports of entry, such as airports, is ineffective in preventing the spread of SARS-CoV-2 virus.
- A health declaration form or health screening questionnaire is part of the exit or entry screening process targeting a specific disease and this needs to be assessed by a health professional with the objective of detecting cases in incoming passengers.
- ECDC advises against combining passenger locator data and health declarations or health screening questionnaires in the same form, as this will delay the transfer of data and the contact tracing procedures.

Scope of this document

To provide ECDC's views on the passenger locator data required and the appropriate use of entry and exit screening procedures at points of entry (PoE), including health declaration forms, in the context of COVID-19 in the EU/EEA and the United Kingdom (UK).

Target audience

Public health authorities in EU/EEA countries and the UK involved in planning the response activities to the COVID-19 pandemic.

Suggested citation: European Centre for Disease Prevention and Control. Considerations relating to passenger locator data, entry and exit screening and health declarations in the context of COVID-19 in the EU/EEA and the UK. ECDC: Stockholm; 2020. © European Centre for Disease Prevention and Control, Stockholm, 2020.

© European Centre for Disease Prevention and Control. Stockholm, 2020

Background

A significant decline in the incidence of new COVID-19 cases has been observed in all EU/EEA countries and the UK [1] and there is growing interest in defining a sound approach to the adjustment of physical distancing measures. When deciding how to adjust measures to allow entry of other nationals into their territories, countries may take into consideration the following points:

- Despite the significant decline in COVID-19 incidence, so far no country is approaching zero reported cases. Even if low levels of transmission are detected in a specific area, the actual incidence can only be confirmed by undertaking extensive, population-based testing (see list of indicators in the <u>ECDC Rapid Risk Assessment:</u> <u>Coronavirus disease 2019 (COVID-19) in the EU/EEA and the UK- ninth update</u>) [2].
- The movement of people increases the risk of SARS-CoV-2 virus re-introduction into areas with low transmission or where only sporadic cases are being observed. For the EU/EEA countries and the UK, the movement of people refers not only to tourists, but also to commuters, business travellers and migrant workers. However, virus re-introduction would not necessarily lead to widespread community transmission if strong surveillance, extensive testing and robust contact tracing measures are in place in the country of arrival, together with ongoing risk communication about the importance of personal protective measures, physical distancing, and hand and respiratory hygiene [3]. Furthermore, minimising the risk of transmission while travelling would lead to less secondary cases from an infectious passenger, which in turn would result in less virus introductions into the host country [4]. When these public health practices and measures are in place, a virus re-introduction via travellers is less likely to lead to uncontrolled outbreaks.

Passenger locator data

The current standard for collecting passenger locator data is a form that was developed as a collaboration between WHO, the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA) in 2012. Its aim is to assist public health authorities in conducting contact tracing of passengers potentially exposed to a communicable disease during a flight or while travelling, in the framework of the International Health Regulations (2005) [5]. Passenger locator forms can be used for any conveyance but are most relevant for air-travel. Depending on the public health regulations in the country of arrival, passengers are asked to fill out a hard copy in-flight and hand it in, either to the aircraft crew or at passport control.

The purpose of identifying and managing the contacts of probable or confirmed COVID-19 cases is to rapidly identify secondary cases and prevent further spread. Contact tracing is an essential measure to fight the ongoing epidemic of COVID-19, in conjunction with active case finding and testing and the application of other measures such as physical distancing [6,7]. Each country needs to adapt their response to the local epidemiological situation and according to available resources. The rigorous application of contact tracing measures can reduce further transmission and have a major impact on the spread of the outbreak [6,7]. Contact tracing is crucial during the current phase of the COVID-19 pandemic when countries are adjusting their control measures.

Passenger locator data should be made available to the public health authorities as soon as possible so that they can initiate contact with exposed passengers. The prompt availability of accurate passenger locator data is extremely important for the success and effectiveness of contact tracing operations. This enables public health authorities to identify and notify contacts of an infected case for active follow-up and the provision of relevant advice.

Current European legislation requires data provided by passengers during the process of booking and checking in for a flight to be communicated by the airlines to law enforcement and immigration authorities. For passengers arriving from countries outside the Schengen area, and with the aim of combatting illegal immigration, the airlines transfer the advance passenger information (API) data under EU Directive 2004/82 [8]. The Schengen Borders Code explicitly states that the data gathered under Directive 2004/82 may be used to determine that a person is not a threat to public health [9]. For passengers within the Schengen area, with the overall aim of combatting terrorism, a similar set of data – a Passenger Notification Record (PNR) – is collected and shared with certain competent authorities in the Member States under EU Directive 2016/681 [10]. This is also shared with Australia, Canada and the USA under international agreements. To date, public health authorities have not been included in the list of designated competent authorities that can receive PNR data, either automatically or on request. When airlines receive requests for passenger data for contact tracing purposes due to a communicable disease incident, they manually extract the relevant flight PNR and communicate it to the requesting authority.

However, obtaining API or manually extracted PNR data is a slow process fraught with challenges, such as double records, incorrect phone numbers, etc. A recent report by the California Department of Public Health (CDPH) in USA reviewed work on the identification and monitoring of incoming international travellers from January to 17 March 2020. During that period, the CDPH staff tried to locate and monitor international passengers using the API and PNR data provided by federal authorities, in an activity similar to contact tracing (although the latter works backwards from a known confirmed case). Only three passengers, out of 11 574 records (26/100 000 passengers) were eventually identified as confirmed COVID-19 cases in the state database, at a cost of 1 694 hours of personnel time, 34% of which was outside normal working hours. Moreover, two of the three identified passengers

were not reached until several days after their entry into the country. This report highlights the need for more efficient ways of communicating with the public health authorities, such as electronic provision of information by airlines and flexible text-messaging tools to improve the contact tracing procedures [6,7,11].

Direct collaboration with airline operators would be the easiest way to obtain the necessary passenger data in a timely manner for effective contract tracing. Member States will need to assess whether the transfer of passenger location data from airlines to public health authorities complies with the requirements under the General Data Protection Legislation (GDPR), taking into account the legal requirements under their national law.

Given all the above data sets collected for airline passengers, ECDC proposes collecting a minimum data set, as this will allow the rest of the personal information to be obtained during the contact tracing interview. This data includes the following limited fields:

- Flight number and seat number: flight number may already be known from the index case, but the seat numbers are extremely important for the assessment of each contact's risk;
- Full name
- Date of birth (optional, but may be useful to differentiate between people with common names);
- Telephone number: a functional mobile;
- Email address: a functional email.

Electronic methods for transferring these data should be explored in collaboration with the airport and aircraft operators.

Table 1 shows a comparison of the data currently collected from flight passengers, as well as the minimum data set proposed by ECDC to facilitate passenger location during a flight.

Table 1. Comparison of passenger data currently collected under different frameworks and the minimum passenger data set for contact tracing purposes proposed by ECDC [4,12,13]

Advance Passenger Information (API)	Passenger Name Record (PNR)	Passenger locator form (ICAO, WHO)	Minimum passenger data for contact tracing
Defined by law	Not defined by law	In the context of IHR (2005), only if public health regulation	Proposed by ECDC
Flight details (airline and flight number, scheduled date and time of departure and arrival, number of passengers, last port of call)	Flight details (airline and flight number, can contain itinerary, seat number, baggage details)	Flight details (airline and flight number, seat number, date of arrival)	Flight number (known) seat number (critical for risk assessment)
Full name	Full name	Full name	Full name (critical)
Date of birth			Date of birth (useful for common names)
Place of birth			Derived from the interview
Nationality	Nationality (not always)		Derived from the interview
Sex		Sex	Derived from the interview
Passport or identification number (issuing state, type of document, expiration)	Passport or identification number (not always)		Not relevant
Visa (number, issue date, place)			Not relevant
Address of permanent residence	Address of permanent residence (may be the travel agency contact details)	Address of permanent residence	Derived from the interview
Destination address		Destination address in the host country	Derived from the interview
	Telephone number (may be from travel agency)	Telephone numbers (home, mobile, business)	Telephone (functional mobile) (critical)
	Email address (may be from travel agency)	Email address	Email address (critical)
		Emergency contact for the next 30 days	Derived from the interview
		Travel companions- family	Derived from the interview
		Travel companions- non- Family	Derived from the interview

Exit and entry screening

It is essential for the movement of people within or between countries that there are measures in place to minimise the risk of sustained community transmission resurging.

Exit or entry screening of passengers, particularly at international airports, is frequently considered as the go-to measure to implement for health security in order to safeguard countries from the introduction of a communicable disease. These procedures usually include some type of thermal screening (contactless thermometers, thermal scanners/cameras and others) to detect exiting or entry passengers with fever (i.e. body temperature >38°C). An additional (secondary screening) is frequently added to this procedure with a health declaration form (see below) or a health questionnaire, potentially administered and assessed by a health professional to determine the need to test for the particular pathogen.

Historically, reports reviewing entry screening from several countries at the time of the SARS outbreak (2003), the A(H1N1)pdm09 influenza pandemic (2009) and the Ebola virus disease (EVD) in West Africa (2014–2016) [14] consistently show that entry screening using temperature control is a high-cost, low-efficiency measure.

As regards COVID-19, based on what we know so far, several of its characteristics make it unlikely that exit or entry screening will detect a sufficient number of cases to make the screening procedures effective and/or efficient in preventing introduction and onward transmission of the disease. These include the following:

- A relatively large number of COVID-19 cases will potentially be in the incubation phase when travelling; SARS-CoV-2 has an incubation period of 2–14 days, with 75% of cases developing symptoms after 4–7 days [2]. These passengers will not be detected by exit or entry screening, even in a scenario assuming high sensitivity equipment. When this scenario was modelled at the beginning of the outbreak in January 2020, it showed that an estimated 75% of infected passengers would exit or enter the country without being detected [15].
- Evidence has accumulated which indicates that asymptomatic (or pre-symptomatic and mild) cases play a significant role in the transmission of COVID-19 (maybe up to 40%) and it is currently established that transmission starts before the onset of symptoms (peaking 0.7 days before) [16].
- In the case of COVID-19 fever is frequently, but not consistently, reported in symptomatic cases. According to ECDC's weekly epidemiological report for week 20–2020 [17], fever was only reported for 48% of over 65 000 laboratory-confirmed COVID-19 cases entered in The European Surveillance System (TESSy). In addition, fever is a symptom that can be temporarily concealed by using antipyretic drugs.

The large variety of screening equipment (contactless thermometers, thermal scanners, etc.) available commercially requires that particular care is taken in calibration and the setting of thresholds for categorising people as screen-positive. The performance of devices is difficult to compare because of different targets and modes of operation. In addition, performance of devices is affected by the choice of the cut-off value set for screening. In general, performance is reported as follows:

- Sensitivity: 80–99%, meaning that between 1 and 20% of the febrile passengers will not be detected (false negative).
- Specificity: 75–99%, meaning that between 1 and 25% of non-febrile passengers will be reported as febrile (false positive).

Some reports suggest that taking the average of several readings improves accuracy [14], however this increases the resources necessary to perform the task.

Some imported COVID-19 cases have been detected through entry screening at destination airports (e.g. in Taiwan, where there is a permanent airport screening system in place [18]). In a recent US-CDC review of the public health response, data from incoming passengers at selected US airports show that as of 21 April 2020, screening of 268 000 returning travellers discovered 14 COVID-19 cases (approx. 5/100 000 screened passengers) [19].

With regard to exit screening, past experience during the Ebola virus disease (EVD) outbreak in West Africa 2014–2016 has shown that it can be useful, but EVD is not transmitted before the onset of symptoms and is in general not asymptomatic [20].

Due to the ongoing community transmission levels in all EU/EEA countries, if exit and/or entry screening is planned, it should include all points of entry and all passengers, using a specific protocol for primary and secondary screening, testing and follow-up. This entails huge human, laboratory, logistical (PPE, sample transport, passenger transit and quarantine, etc.) and monetary resources, which will be reduce the amount available for preparedness planning for a potential second wave of the COVID-19 pandemic.

Nevertheless, exit and entry screening processes may help dissuade those who are sick from travelling by air and enhance the confidence of healthy travellers. In addition, they offer a further means for providing specific information to passengers on the disease, the current epidemiological situation and where to seek medical advice, if needed [21].

Passenger health declaration

In the context of COVID-19, many countries in the EU/EEA and around the world are collecting health information from passengers as part of the entry screening procedure, usually through questionnaires (passenger health declaration form.) They usually focus on possible exposure(s) (either through travel or contact with a known case) and experience of symptoms such as fever, cough or other respiratory symptoms. These forms are distributed in several ways - e.g. self-completion by passengers during the flight or in the arrivals terminal in specially designated areas, or with the assistance of a health professional. They can be used for all incoming passengers or only those who have had positive thermal screening (high body temperature). Depending on the protocol/algorithm used at the national/local level, passengers who have a high body temperature at thermal screening and/or who report particular symptoms are assessed by a health professional and a decision is made as to whether they need to be tested for COVID-19. Finally, it is important to note that health exposure and symptom questionnaires are also used in the context of a cluster or outbreak investigation.

Although the addition of a health declaration form or a health exposure and symptoms questionnaire for temperature screening may improve the sensitivity of the screening process, it also requires more resources, planning, logistical and data protection challenges. COVID-19 symptoms are similar to those of a number of other respiratory diseases (most notably influenza, and a variety of respiratory viruses and allergic rhinitis) and no single symptom or combination of symptoms has proven to be pathognomonic for the disease.

Member States need to ensure that the collection of health declaration forms is supported by the legal framework (or a relevant legal provision should be adopted) and that their handling by airlines, airports and public health authorities complies with requirements under the General Data Protection Legislation (GDPR).

Many passenger health declaration forms were rapidly developed at the beginning of the COVID-19 pandemic and this has led to a number of different approaches. Aircraft operators are required to carry enough copies to distribute and collect from the passengers, which adds to the confusion. Public health authorities are required to screen the declarations and follow up with passengers, but the manual handling of paper-based questionnaires delays and adds to the inefficiency of screening.

As passenger health declaration forms are developed in relation to a specific disease, they should be kept separate from the passenger locator card. They contain sensitive personal health data, and therefore they should preferably be collected and handled by health professionals and stored in a protected health database. A template questionnaire and assessment is included in Annex 1 for those public health authorities that decide to develop a health declaration form or health assessment questionnaire to screen passengers in the context of COVID-19.

Discussions are underway at the international level (in the CAPSCA working group advising ICAO) on the possibility of harmonising health declaration questionnaires in order to facilitate their use and collection and ultimately improve data quality. Electronic solutions are also under consideration and should be explored to expedite the completion of the questionnaire, improve readability and understanding for the passengers; improve turnaround time of screening processes and significantly improve data quality and data assessment or analysis.

Conclusions

ECDC stresses the need to collect and promptly transmit passenger locator data, which is valuable information for conducting effective contact tracing. New methods need to be explored for the smooth transfer of a minimum passenger locator data set during the current phase when physical distancing measures are being adjusted.

ECDC does not support the widespread implementation of exit or entry screening. During the current adjustment phase, communication should be in place to increase awareness of COVID-19 symptoms, including the mild or even asymptomatic course of illness in younger age groups who are more mobile. People should be aware and be advised that they should not travel or use public transportation if they have symptoms compatible with COVID-19.

Contributing ECDC experts (in alphabetical order)

Cornelia Adloch, Agoritsa Baka, Orlando Cenciarelli, Bruno Ciancio, Stefania De Angelis, Margot Einoder, Emmanuel Robesyn, Lina Nerlander, Diamantis Plachouras, Carl Suetens.

References

- 1. European Centre for Disease Prevention and Control (ECDC). Weekly surveillance report on COVID-19 Week 22-2020 [5 June 2020]. Available from: <u>https://www.ecdc.europa.eu/en/covid-19/surveillance/weekly-surveillance-report</u>
- European Centre for Disease Prevention and Control (ECDC). Rapid Risk Assessment: Coronavirus disease 2019 (COVID-19) in the EU/EEA and the UK- ninth update [18 May 2020]. Available from: <u>https://www.ecdc.europa.eu/en/publications-data/rapid-risk-assessment-coronavirus-disease-2019-covid-19-pandemic-ninth-update</u>
- 3. Korea CDC. COVID-19 Domestic Outbreak Status (May 18, Regular Briefing) [코로나바이러스감염증-19 국내 발생 현황 (5월 18일, 정례브리핑)] [updated 18 May 2020]. Available from: https://www.cdc.go.kr/board/board.es?mid=a20501000000&bid=0015&list_no=367250&act=view
- European Centre for Disease Prevention and Control (ECDC) and European Union Aviation Safety Agency (EASA). COVID-19 Aviation Health Safety Protocol: Guidance for the management of airline passengers in relation to the COVID-19 pandemic [5 June 2020]. Available from: <u>https://www.ecdc.europa.eu/en/publications-data/covid-19-aviation-health-safety-protocol</u>
- 5. International Air Transport Association (IATA). Passenger locator form [18 May 2020]. Available from: https://www.iata.org/en/programs/safety/health/locator-form/
- European Centre for Disease Prevention and Control (ECDC). Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union second update [18 May 2020]. Available from: <u>https://www.ecdc.europa.eu/en/covid-19-contact-tracing-publichealth-management</u>
- European Centre for Disease Prevention and Control (ECDC). Contact tracing for COVID-19: current evidence, options for scale-up and an assessment of resources needed [18 May 2020]. Available from: https://www.ecdc.europa.eu/en/publications-data/contact-tracing-covid-19-evidence-scale-up-assessment-resources
- EUR-Lex. Access to European Union law. Council Directive 2004/82/EC of 29 April 2004 on the obligation of carriers to communicate passenger data [5 June 2020]. Available from: <u>https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=celex%3A32004L0082</u>
- EUR-Lex. Access to European Union law. Regulation (EU) 2017/458 of the European Parliament and of the Council of 15 March 2017 amending Regulation (EU) 2016/399 as regards the reinforcement of checks against relevant databases at external borders [5 June 2020]. Available from: <u>https://eur-lex.europa.eu/legalcontent/EN/ALL/?uri=CELEX%3A32017R0458</u>
- EUR-Lex. Access to European Union law. Directive (EU) 2016/681 of the European Parliament and of the Council of 27 April 2016 on the use of passenger name record (PNR) data for the prevention, detection, investigation and prosecution of terrorist offences and serious crime [5 June 2020]. Available from: <u>https://eurlex.europa.eu/eli/dir/2016/681/oj</u>
- Myers JF, Snyder RE, Porse CC, Tecle S, Lowenthal P, Danforth ME, et al. Identification and Monitoring of International Travelers During the Initial Phase of an Outbreak of COVID-19—California, February 3–March 17, 2020. MMWR Morbidity and Mortality Weekly Report. 2020;69.
- 12. European Commission (EC). Migration and Home Affairs. Passenger Name Record (PNR) [5 June 2020]. Available from: <u>https://ec.europa.eu/home-affairs/what-we-do/policies/police-cooperation/information-exchange/pnr_en</u>
- International Air Transport Association (IATA). Guidelines on Advance Passenger Information (API) 2014
 [5 June 2020]. Available from: <u>https://www.iata.org/contentassets/18a5fdb2dc144d619a8c10dc1472ae80/api-guidelines-main-text 2014.pdf</u>
- 14. European Centre for Disease Prevention and Control (ECDC). Infection prevention and control measures for Ebola virus disease: Entry and exit body temperature screening measures. [18 May 2020]. Available from: <u>https://www.ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/Ebola-outbreak-</u> <u>technicalreport-exit-entry-screening-13Oct2014.pdf</u>
- 15. Quilty BJ, Clifford S, Flasche S, Eggo RM. Effectiveness of airport screening at detecting travellers infected with novel coronavirus (2019-nCoV). Eurosurveillance. 2020;25(5):2000080.
- 16. He X, Lau EH, Wu P, Deng X, Wang J, Hao X, et al. Temporal dynamics in viral shedding and transmissibility of COVID-19. Nature medicine. 2020;26(5):672-5.
- 17. European Centre for Disease Prevention and Control (ECDC). COVID-19 Surveillance Report Week 19-2020 [18 May 2020]. Available from: <u>https://covid19-surveillance-report.ecdc.europa.eu/#1_introduction</u>
- 18. Taiwan Centers for Disease Control. Coronavirus disease 2019 (COVID-19) [5 June 2020]. Available from: https://www.cdc.gov.tw/En
- 19. Schuchat A. Public Health Response to the Initiation and Spread of Pandemic COVID-19 in the United States, February 24–April 21, 2020. MMWR Morbidity and Mortality Weekly Report. 2020;69.
- World Health Organization (WHO). Exit screening at airports, ports and land crossings: Interim guidance for Ebola virus disease [5 June 2020]. Available from: <u>https://www.who.int/csr/resources/publications/ebola/exit-screening-guidance/en/</u>

- 21. John RKS, King A, De Jong D, Bodie-Collins M, Squires SG, Tam TW. Border screening for SARS. Emerging Infectious Diseases. 2005;11(1):6.
- 22. Haehner A, Draf J, Draeger S, Hummel T. Predictive value of sudden olfactory loss in the diagnosis of COVID-19. medRxiv. 2020.

Annex 1. Template for a health questionnaire for screening purposes

Despite the fact that current evidence indicates exit and/or entry screenings to be ineffective in preventing SARS-CoV-2 virus introductions, it is possible that national plans or decisions may still require such procedures to be implemented at various points of entry (PoE).

Exit or entry screening processes are usually based on temperature screening, with the possible addition of a health declaration form or a health exposure and symptom questionnaire. In order for the entire process to be of some benefit, it is important to combine it with the provision of health information regarding the ongoing outbreak, advice on personal protection measures (e.g. physical distancing, hand washing and respiratory etiquette) and information on where the incoming passenger can seek medical advice.

COVID-19 symptoms are mostly respiratory, particularly in the mild ambulatory patients [2]. According to ECDC's weekly epidemiological report [1] based on COVID-19 cases reported to TESSy by the EU/EEA countries and the UK with complete information, most frequent symptoms included fever (48%), cough (44%), general malaise and headache (15% each), myalgia and shortness of breath (10% each). These figures may not be representative of all COVID-19 cases, given the variation between countries in reporting symptoms to TESSy and differences in testing policies. Additional symptoms that have been reported in the literature include conjunctivitis and sudden onset loss of smell and/or taste, which may be more frequent in milder cases [22].

A health screening questionnaire should ideally be validated with a sample of known COVID-19 cases to check its sensitivity, and tested by a number of lay people in order to make sure it is fully understandable and functional before operational deployment at points of entry (PoE). The number of questions on the questionnaire should be kept to a minimum to ensure compliance and user friendliness. Questions should be clearly phrased, with a minimum of open text options. Language level should be appropriate for the public to understand the symptom terminology. National authorities are encouraged to translate the questions into national language(s) and also have the form available in English, while also considering further language options, depending on national capacities, context and needs. In addition, the use of pictograms showing the symptoms may increase user-friendliness and understanding by the public, which will have a positive effect on compliance and the quality of information collected.

Member States should also consider creating an electronic version of the health questionnaire in addition to the hard copy version. Options include adding it to a contact tracing application, using a symptom tracking application or going via the aircraft operator by adding this information to their corporate mobile applications. This may facilitate completion by passengers either during check-in or during the flight before landing. Finally, legal provisions should be made for the collection of this data to comply with GDPR.

ECDC advises against combining passenger locator data and health information/screening questionnaire data in the same form in response to the COVID-19 pandemic, despite the fact that both require passenger identification and flight details.

If a common health questionnaire is adopted at the EU level, then translation into all EU/EEA languages will be feasible.

Health questionnaire assessment

The completed health questionnaire or health declaration form should be assessed by a health professional in a specially designated area for each passenger separately. This may entail re-checking the temperature and other vital signs and going over the questions in more detail to decide if the passenger should be referred for COVID-19 testing.

The questions included in the questionnaire template below are selected as a result of the reported frequency of clinical symptoms in COVID-19 confirmed cases. No single symptom or combination of symptoms has proven to be pathognomonic for the disease. Cough and fever are by far the more frequent symptoms, while malaise, myalgia and anosmia are much less frequent and are usually associated with milder cases. Combinations of answers including cough and/or fever are more suggestive of COVID-19 in the context of widespread community transmission, while combinations without either of those two symptoms are less so. Any combination which includes sudden onset anosmia should also be referred for testing.

Testing for acute SARS-CoV-2 infection is currently based on clinically well-validated diagnostic molecular techniques (RT-PCR) applied to specimens from nasopharyngeal swabs or other respiratory secretions. It is critical to use molecular detection assays.

As in other disease contexts, all positive tests detected among travellers should trigger a thorough investigation including contact tracing. The data provided in the passenger locator and the health questionnaire would greatly facilitate this task.

In addition to testing for COVID-19, a secondary assessment of a passenger based on their health declaration form can be used as a more selective means for instituting a 14-day quarantine period after entering the country, rather than advising this for all incoming passengers.

A non-validated template health assessment questionnaire for COVID-19 is presented below, based on current knowledge of the symptomatology and duration of viral shedding.

Introductory text needed to explain the reason for this data collection, the process for handling personal information and the period for which the data will be held.

Personal identification: first and last name

Personal contact information: _

1. In the last **8** days before your journey, have you had any of the following symptoms? (*Please mark Yes or No next to each symptom*)

i.	Recently developed cough (dry or productive)	Yes/No
ii.	Fever (or feeling feverish)	Yes/No
iii.	General weakness	Yes/No
iv.	Generalised muscle aches	Yes/No
v.	Sudden loss of smell and/or taste	Yes/No

- 2. In the last 14 days before your journey, were you in contact with anyone diagnosed with COVID-19 infection?
 - i. Yes
 - ii. No
- 3. In the last 14 days before your journey, list the cities and countries you have visited and indicate the duration of your stay in each one:

Place:	Duration: date of arrival	date of departure
Place:	Duration: date of arrival	date of departure

Text needed to provide information to the passenger on the disease and explain where to find more information and/or seek advice, if needed.

Assessment section:

- 1. Temperature check:
- 2. Other vital signs:

3. Use of antipyretics or other analgesics, up to 4 hours before arrival: Yes/No

Assessment decision:	