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Current major event

The Unity Studies: Early Investigation Protocols for COVID-19

WHO, in collaboration with other technical partners, has developed several generic investigation protocols for COVID-19, branded as the WHO Unity Studies. These protocols are designed to rapidly and systematically collect and share data in a format that facilitates aggregation, tabulation and analysis across different settings globally.

Editorial note

The recent emergence of COVID-19 means that understanding transmission patterns, severity, clinical features and risk factors for infection remains limited, whether among the general population, for health workers or in households and other "closed" settings. Studies to assess the epidemiology and clinical characteristics of cases in different settings are therefore critical to furthering our understanding of SARS-CoV-2 and its associated disease.

The global public health community recognized the need for standard investigations and data collection tools following outbreaks of highly pathogenic avian influenza subtype H5N1 and the H1N1 influenza pandemic of 2009. Since 2011, two international and well-represented networks have been working towards the standardization of clinical, epidemiological and laboratory methods for use in outbreaks. These are the International Severe Acute Respiratory and Emerging Infection Consortium (ISARIC) and the Consortium for the Standardization of Influenza Seroepidemiology (CONSISE).

The WHO expert working group on Pandemic Influenza Special Investigations & Studies has developed several standard protocols for influenza. Similar protocols have been developed by WHO in collaboration with technical partners for MERS-CoV. With the support of expert advisors, WHO has now adapted the influenza and MERS-CoV protocols to help enhance the understanding of clinical, epidemiological and virological characteristics of COVID-19 by using a combination of molecular and serologic testing (*see summary table*). The protocols and associated forms have been designed so that data can be rapidly and systematically collected and shared in a format that facilitates aggregation, tabulation and analysis across different settings globally. Data collected using these investigation protocols will be critical to refine recommendations for case definitions and surveillance, characterize key epidemiological features of COVID-19, help understand the spread, severity, spectrum of disease and impact on the community, and to inform guidance for application of countermeasures such as case isolation and contact tracing.

To date, 9 countries in the Eastern Mediterranean Region are implementing those studies and 6 additional countries are in the planning phase. Globally, more than 90 countries have started the implementation of unity studies. The most commonly implemented protocol so far has been the one related to population-based age-stratified investigation (*see box*). WHO is providing technical and financial support to ministries of health, agencies and academic institutions to conduct these studies. The technical support includes, but is not limited to, the development or revision of study protocol, provision of testing panels and reagents, and data analysis support.

WHO encourages any and all countries and study centres to contribute to this effort regardless of resource availability or patient volume. Together, we can answer critical questions that would support curtailing this outbreak and preparing for others in the future.

Summary of protocols available for country use and adaptation

1. The First Few COVID-19 X cases and contacts transmission investigation (FFX)
2. Household transmission investigation protocol for coronavirus disease 2019 (COVID-19)
3. Assessment of risk factors for coronavirus disease 2019 (COVID-19) in health workers: protocol for a case-control study
4. Assessment of risk factors for COVID-19 in health workers
5. Surface sampling of coronavirus disease (COVID-19): a practical "how to" protocol for health care and public health professionals
6. Population-based age-stratified seroepidemiological investigation protocol for COVID-19 virus infection
7. Schools and other educational institutions transmission investigation protocol for coronavirus disease 2019 (COVID-19)

Source: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/early-investigations

Objectives of population-based age-stratified seroepidemiological investigation

- To measure the seroprevalence of antibodies to COVID-19 in the general population by sex and age group, in order to ascertain the cumulative population immunity.
- To estimate the fraction of asymptomatic, pre-symptomatic or subclinical infections in the population by sex and age group.

Update on outbreaks

in the Eastern Mediterranean Region

COVID-19 in 22 EMR countries;

Current public health events of concern
[cumulative N° of cases (deaths), **CFR %**]

Coronavirus disease 2019 (COVID-19): 2019-2020	
Afghanistan	[42 159 (1562), 3.7%]
Bahrain	[83 264 (329), 0.4%]
Djibouti	[5605 (61), 1.1%]
Egypt	[108 962 (6355) , 5.8%]
Iran (Islamic Republic of)	[673 250 (37 832), 5.6%]
Iraq	[49 019 (11 283) , 2.3%]
Jordan	[104 802 (1181), 1.1%]
Kuwait	[131 205 (808), 0.6%]
Lebanon	[93 097 (713), 0.8%]
Libya	[68 117 (929), 1.4%]
Morocco	[252 185 (4197), 1.7%]
occupied Palestinian territory (oPt)	[69 612 (584), 0.8%]
Oman	[117 167 (1286), 1.1%]
Pakistan	[343 189 (6968), 2%]
Qatar	[134 013 (232), 0.2%]
Saudi Arabia	[350 229 (5525), 1.6%]
Somalia	[4229 (107), 2.5%]
Sudan	[14 155 (1116), 7.9%]
Syrian Arab Republic	[6147 (313), 5.1%]
Tunisia	[71 131 (1903), 2.7%]
United Arab Emirates	[141 032 (514), 0.4%]
Yemen	[2070 (602), 29.1%]