

Correspondence

COVID-19 data gaps and lack of transparency undermine pandemic response

Dear Editor

Ronquillo *et al.* correctly argue that collecting and synthesizing data and information quickly is crucial for managing any public health emergency.¹ Timely, complete and accessible surveillance data are necessary for monitoring the progression of an epidemic and designing targeted and effective containment measures. Transparency and data accessibility are also prerequisites for building trust, increasing public compliance to public health measures and allowing fairness and accountability in decision-making.²

Building on the management experience of previous epidemic crises, the World Health Organisation (WHO) and the European Centre for Disease Prevention and Control (ECDC) relatively early in the COVID-19 pandemic, set minimum standards and recommendations for member states regarding routine surveillance data collection and reporting (Table 1, columns 1 and 2).

WHO guidelines require member states to collect and report aggregated data on COVID-19 confirmed cases and deaths (both stratified by age group and sex); number of tests and hospitalized cases and discharges.³ On top of WHO data, ECDC asks European member states to collect and report data on the geographical spread of the pandemic; data related to COVID-19 healthcare impact (e.g. confirmed cases among healthcare workers, availability of ICU beds); outbreak surveillance data and contact tracing data.⁴ Academics have argued that the previous minimum data sets need to be further stratified (e.g. reporting cases and deaths by occupation, nationality, race, postal code) in order to uncover inequalities and achieve operational effectiveness in the control of the epidemic at the local level.

Greece recently faced a severe second COVID-19 wave. Despite having enough time to prepare due to the few cases until June, and ignoring early calls for urgent investment on epidemiological surveillance and transparency,⁵ the system is still failing to collect adequate data and even report minimum indicators (Table 1, column 3). Aggregated data on COVID-19 hospitalized cases and discharges are neither publicly accessible nor reported to ECDC or WHO, data on COVID-19 confirmed cases or deaths among healthcare workers are not collected. Outbreaks in nursing homes or workplaces are reported only by the media and contact tracing data are not publicly available. COVID-19 cases and deaths are not stratified by ethnic background, occupation or socioeconomic status.

These serious data gaps are not unique in Europe⁶ and are mostly related to the lack of prioritization and under-investment in local public health surveillance systems.⁵ Given the time needed in order to achieve herd immunity through vaccination, immediate investment in comprehensive epidemiological surveillance is the only way to maintain reduced levels of transmission and avoid resurgences.

References

- 1 Ronquillo JG, Lester WT, Zuckerman DM. Using informatics to guide public health policy during the COVID-19 pandemic in the USA. *J Public Health* 2020;**42**:660–4.
- 2 O'Malley P, Rainford J, Thompson A. Transparency during public health emergencies: from rhetoric to reality. *Bull World Health Organ* 2009;**87**:614–8.

Table 1 Completeness and accessibility of COVID-19 surveillance data in Greece

Indicator	Stratification of data	Completeness and data accessibility
Number of confirmed COVID-19 cases	<ul style="list-style-type: none"> • By age group and sex • By health region, prefecture and postal code 	COVID-19 confirmed cases and deaths by age group and sex reported daily by the NPHO. Geographical distribution of cases presented daily since December 16th (295th day since the onset of the epidemic). No further stratification of data provided.
Number of confirmed COVID-19 deaths	<ul style="list-style-type: none"> • By nationality and ethnic background • By occupation and/or socioeconomic status 	
Number of persons tested for COVID-19	<ul style="list-style-type: none"> • Among healthcare and social care workers • Among enclosed population groups (e.g. nursing homes, refugee camps and facilities, prisons) • Among students in schools and universities • Among vulnerable population groups (e.g. Roma, homeless) 	Number of tests by type (PCR, rapid Ag test) reported daily by the NPHO. Test positivity rates were first provided on December 16th (295th day since the onset of the epidemic) and reported since then on a weekly basis.
Number of patients hospitalized due to COVID-19		Daily reporting on number of hospitalized COVID-19 cases interrupted on March 25th. Since then, no publicly available data, no reporting to ECDC
Number of patients hospitalized in ICU/HDUs with COVID-19		Number of COVID-19 cases hospitalized in ICUs by age group and sex reported daily by the NPHO. No further stratification of data provided.
Number of confirmed COVID-19 cases discharged		Daily reporting on number of COVID-19 hospital discharges interrupted on March 25th. Since then, no publicly available data, no reporting to ECDC
Available beds and occupancy rates in COVID-19 related hospital beds and ICU/HDUs	<ul style="list-style-type: none"> • By health region • By prefecture • By hospital 	No publicly available data, no reporting to ECDC. The Ministry of Health provides fragmented information on an <i>ad hoc</i> basis.
Number of COVID-19 outbreaks	<ul style="list-style-type: none"> • Nosocomial • In long-term care facilities • In refugee camps and facilities, prisons • In schools, universities • By type of workplace 	Only number of COVID-19 cases in refugee camps and facilities reported on a weekly basis by the NPHO. No further official data or information is publicly available. The media provide fragmented information on workplace and nursing home outbreaks on an <i>ad hoc</i> basis.
Contact tracing data	<ul style="list-style-type: none"> • Place of infection • Type of contacts most affected • Common settings of transmission 	No publicly available data, no reporting to ECDC. The General Secretariat of Civil Protection provides fragmented information on an <i>ad hoc</i> basis.

Notes: NPHO, National Public Health Organization; ICU, Intensive Care Units; HDU, High Dependency Units.

3 World Health Organization. *Global surveillance for COVID-19 caused by human infection with COVID-19 virus, Interim guidance 20 March 2020*. Geneva: World Health Organization, 2020.

4 European Centre for Disease Prevention and Control. *Strategies for the surveillance of Covid-19. Technical report 9 April 2020*. Stockholm: European Centre for Disease Prevention and Control, 2020.

5 Kondilis E, Benos A. *Epidemic preparedness requires the collection of comprehensive data and transparency in its communication*. Thessaloniki: Centre for Research and Education in Public Health, Health Policy and Primary Healthcare, 2020. <https://www.healthpolicycenter.gr/en/>.

6 Roderick P, Macfarlane A, Pollock AM. Getting back on track: control of covid-19 outbreaks in the community. *BMJ* 2020;**369**:m2484.

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