ECDC

DPR/VPI

COVID19: Monitoring of vaccine roll out, collection of data on vaccine distributed and number of individual receiving the vaccine at European level in the early phase of the campaign

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Background information

Since it emerged in China end of 2019, SARS-Cov-2 has proven to be a major public health threat to EU/EEA countries and to countries worldwide. Vaccination is a key intervention for responding to COVID-19. Monitoring indicators on vaccine deployment and vaccination coverage rates provides key information to steer the ongoing vaccination campaigns.

Monitoring vaccine uptake will provide information on the performance and efficiency of the vaccination programme and its capability to reach the population to whom vaccination is recommended. In addition, it may provide information on how equitable (in term of access to vaccines) and how acceptable the program is to target populations. Finally, vaccination data would be needed to facilitate forecasting models in the immediate future at national and European levels.

Data collected at subnational level (NUTS2/GAUL1) and in specific subgroups will allow for identification of areas with low coverage and pockets of susceptible individuals (e.g. population or specific groups which may pose a risk for the wider community or that are particularly vulnerable to severe COVID-19).

Such data will allow for tailoring specific interventions. If uptake is not meeting required levels, additional strategies or promotional efforts may be needed for specific target groups.

The collection and monitoring of vaccine coverage data will require putting in place manual or electronic registration systems of vaccination, though bearing in mind the fundamental power of the latter, which can also facilitate studies of vaccine safety and effectiveness.

In the future, strengthened surveillance systems will integrate both data on the epidemiology of the disease as well as vaccination coverage rates.

Vaccine coverage data won't be readily available in the initial phase of the campaigns. At this stage of the overall vaccination effort of Member States, it is particularly important to closely monitor the vaccine deployment and distribution to the target population groups. Such data are needed to rapidly identify shortcomings that can hamper the success of the campaigns and have long term consequences to the success of such intervention. Vaccine deployment can be monitored using a limited set of indicators such as the number of doses distributed and administrated in a target population as explained in this document.

Scope

The scope of this concept note is to provide an overview of the indicators proposed to be monitored in the initial phase of the COVID-19 vaccination campaign deployment in the EU/EEA and wider WHO European region jointly by ECDC and WHO/Europe.

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In a second phase, additional activities will be undertaken by the VPI programme at ECDC in collaboration with WHO/Europe regarding the documentation of COVID-19 vaccination strategies and recommendations as well as coordinated approach for the collection and monitoring of vaccination coverage rates at European level.

Objectives of the surveillance

The collection of early indicators on the number of vaccine doses distributed to the country and the number of individual receiving the vaccine aims:

- To inform about the efficiency of the vaccination campaign in terms of administration of the vaccine doses to the target population at national level, in specific target groups and across the countries
- To inform about the capability of the countries to ensure administration of all vaccine doses to individuals
- To identify possible shortcomings in the deployment of the vaccines

In a second phase, vaccination coverage rate estimates calculated from information gathered on individual data vaccination status (e.g immunisation information systems), claim records special surveys by the national public health authorities will be collected. Vaccination coverage rates will inform on the efficacy of the vaccination programme. Coverage data will supplement the epdemiological reporting to allow for a comprehensive overview of the epidemiology of the disease.

Definitions

Healthcareworkers (HCW) refer to those who work in a healthcare settings who may come into contact with patients, including clinical administration staff, and care home staff.

Doses of vaccines refer to the total number of doses of vaccine knowing that one vial of vaccine can contain up to 6 doses (e.g Pfizer BionTech[1])

N**umber of doses distributed to the country** refers to the number of doses received by the country from the manufacturer.

Number of doses distributed to the country at subnational level refers to the number of doses reallocated to each region among doses received by the country from the manufacturer.

Weekly data:

- Week when vaccine distributed by the manufacture have been received by the country
- Week of vaccine dose administration to an individual receiving any of the first, second or unknown dose

Proposal for the monitoring of the initial phase of the vaccine deployment

The total number of vaccine doses distributed and administrated in different population subgroups are timely indicators of the dynamic of the deployment of the COVID-19 vaccine(s).

ECDC and WHO/Europe propose that countries report on a biweekly basis consolidated and complete figures on:

1. The weekly number of vaccine doses distributed by the manufacturer to the country, total and by vaccine brand
2. The weekly number of persons receiving the first vaccine dose: total, by vaccine brand and by target groups at national and subnational level (NUTS2/GAUL1) where available

[1] https://www.ema.europa.eu/en/news/extra-dose-vials-comirnaty-covid-19-vaccine

3. The weekly number of persons receiving the second vaccine dose: total, by vaccine brand and by target group at national and subnational level (NUTS2/GAUL1) where available
4. The population denominators for each target group

Reporting platform: TESSy

Reporting frequency:

For vaccines received/number of individuals receiving the vaccine Monday to Sunday of the previous week, data **should be reported every Tuesday by 23:59 and updated retrospectively**; updates to the transmission status should also be reported by the same deadline.

Preliminary data for the current week should be reported every Friday by 23:59 and refer to vaccines received/number of individuals receiving the vaccine Monday-Thursday of the current week.

It is possible to update data any data of the week, however please note that:

1. Snapshots of the data will be taken on Mondays at 07:00 and on Wednesdays at 07:00. These snapshots will be used for the European Commission Integrated Situational Awareness and Analysis report (ISAA report) and the ECDC weekly COVID-19 surveillance report respectively. If you are unable to meet these deadlines, please contact the ECDC VPI team (5.1 5.1.2e *@ecdc.europa.eu* and copy 5.1.5 *@ecdc.europa.eu*).

2. All data collected are shared with the World Health Organisation – Regional Office for Europe (WHO/Europe) on a weekly basis to fulfil Member States reporting requirements to WHO. Duplicate reporting is therefore not required.

For the first report, historical data for previous weeks should also be reported.

Type of data: Aggregated

Variables to be collected:

- ReportingCountry
- DateUsedForStatistics (YYYY-ww)
- Region (NUTS2/GAUL1)
- Vaccine brand
- Weekly number of vaccine doses distributed by the manufacturer and received by the country at national and subnational levels
- Weekly number of individuals receving the first, second or unknown vaccine dose at national and subnational levels
- Target groups:
    - Weekly number of individuals receiving the first vaccine dose at national and subnatuional level
    - Weekly number of individuals receiving the second vaccine dose at national and subnational level
    - Weekly number of individuals receiving a vaccine dose defined as "unknown dose" at national and subnational level

    - Weekly number of healthcare workers that received the first vaccine dose at national and subnational level
    - Weekly number of healthcare workers receiving the second vaccine dose at national and subnational level
    - Weekly number of healthcare workers receiving a vaccine dose defined as "unknown dose" at national and subnational level

    - Weekly number of individuals receiving the first vaccine dose by age-group (18-24, 25-49, 50-59, 60-69, 70-79, 80+) at national and subnational level
    - Weekly number of individuals receiving the second vaccine dose by age-group (18-24, 25-49, 50-59, 60-69, 70-79,80+) at national and subnatuional level

- Weekly number of individuals receiving a vaccine dose defined as "unknown dose" by age-group (18-24, 25-49, 50-59, 60-69, 70-79, 80+) at national and subnatuional level

- Weekly number of individuals residents in long-term care facilities receiving the first vaccine dose at national and subnatuional level
- Weekly number of individuals residents in long-term care facilities receiving the second vaccine dose at national and subnational level
- Weekly number of individuals residents in long-term care facilities receiving a vaccine dose defined as "unknown dose" at national and subnational level

- Weekly number of individuals refusing the first vaccine dose at national level

- Population denominators for target groups (total population and age-specific population denominators will be obtained from Eurostat/UN)

Additional target groups to be considered along the deployment of the vaccine: persons with chronic underlying conditions, prisoners, first responders, pregnant women.

Minimum mandatory reporting:

- Weekly number of vaccine doses distributed by the manufacturer and received by the country: total and by vaccine brand

- Weekly number of individuals receiving the first vaccine dose: total and by vaccine brand
- Weekly number of individuals receiving the second vaccine dose: total and by vaccine brand
- Weekly number of individuals receiving a vaccine dose defined as "unknown dose": total and by vaccine brand

- Weekly number of individuals aged < 60 years receiving first vaccine dose at national level
- Weekly number of individuals aged < 60 years receiving second vaccine dose at national level
- Weekly number of individuals aged < 60 years a vaccine dose defined as "unknown dose" at national level

- Weekly number of individuals aged >= 60 years receiving first vaccine dose at national level
- Weekly number of individuals aged >= 60 years receiving second vaccine dose at national level
- Weekly number of individuals aged >= 60 years a vaccine dose defined as "unknown dose" at national level

- Weekly number of healthcareworkers receiving first vaccine dose at national level
- Weekly number of healthcareworkers receiving second vaccine dose at national level
- Weekly number of healthcareworkers receiving a vaccine dose defined as "unknown dose" at national level

Indicators calculated:

1. Cumulative and weekly proportion of vaccine administered to individuals: number of individuals receiving any vaccine dose/number of vaccine doses reveived by the country: total and by vaccine brand
2. Number of individual receiving the first dose per million inhabitants at national level and subnational level
3. Vaccination coverage: number of persons receiving the second dose divided by the total population targeted by the vaccine recommendation (overall, by age-group, in healthcareworkers, in LTCF and at subnational level)

Indicators 1, 2 and 3 will give information on the dynmamic of the vaccination campaign.

Indicator 3 will provide information on the proportion of the target population that has been fully vaccinated.