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Preparatory measures for the participation of the Western Balkans and Turkey in the European Centre for Disease Prevention and Control with special focus on One-Health against AMR and enhanced SARI surveillance, 2020 – 2024

Assessment tool for national communicable disease surveillance systems

This assessment tool, which will be used during the country visits to Western Balkans and Türkiye, aims to provide ECDC with a good understanding of the national communicable disease surveillance system, its organisation and functions, and key areas for improvement.

Information obtained through this questionnaire will help identify the strengths of the current system and areas requiring further improvement, enabling ECDC to tailor its support to the country. The assessment tool will be shared with Western Balkans and Türkiye. In order to complete the questionnaire, ECDC may need to meet several national experts covering epidemiology, microbiology and data management.

	Parameters	Comments
1. System description		
1.1. System objectives		
1.	Are there explicit surveillance objectives for each disease under national surveillance? ☐Yes ☐No If yes, please provide a copy of the relevant documentation. If yes, have you ever shared these objectives with the relevant data providers? ☐Yes ☐No	
1.2. System overview		
2.	Please provide a list of notifiable communicable diseases in your country and describe the type of surveillance system implemented for each disease (active, passive, passive with active zero reporting).	
3.	Are there any additional voluntary surveillance schemes at national level? ☐Yes ☐No If yes, please briefly describe.	

	Parameters	Comments
4.	Please list the communicable diseases that must be reported immediately or within a specific time limit to the national level public health authorities.	
5.	Is there a 24/7 duty system for diseases that requires urgent reporting and response? ☐Yes ☐No If yes, please briefly describe.	
6.	How comprehensive is your routine surveillance? Please briefly describe.	
7.	Are any diseases under sentinel surveillance? ☐Yes ☐No If yes, please list the diseases and give a short description. If yes, does each sentinel system have a known population denominator? ☐Yes ☐No	
8.	Are any health events under syndromic surveillance? ☐Yes ☐No If yes, please list the syndromes and give a short description.	
9.	What are the data sources of your routine surveillance? ☐ Local public health authorities ☐ Regional public health authorities ☐ General practitioners ☐Hospitals ☐ Laboratories ☐ Other (please specify):	
10.	Indicate which of the sectors/systems listed below has a coordination mechanism with the communicable disease surveillance system. ☐ Food safety ☐ Veterinary surveillance ☐ Mortality surveillance ☐ Environmental surveillance ○ Potable water monitoring ☐ Blood and tissue product safety ☐ Non-communicable disease surveillance ☐ Other (please specify):	
11.	Is there any established procedure for the evaluation of your surveillance system? ☐Yes ☐No If yes, please specify the type of evaluation:	

	Parameters	Comments
	Internal/self-evaluation ☐Yes ☐No External evaluation ☐Yes ☐No Mixed evaluation ☐Yes ☐No If yes, when was the last evaluation conducted? (Please briefly describe whether it was conducted for a specific communicable disease or for the overall surveillance system, the main findings and actions taken for further improvement).	
2. Data collection		
12.	Describe the data flow for a confirmed case of a communicable disease through the various levels (hospital and/or laboratory, district, regional, national), including the actions taken at each level and, if possible, the time required for each step. Is there a flow chart describing the above process? ☐Yes ☐No	
13.	Does your country have case definitions for reporting at national level covering all notifiable communicable diseases? ☐Yes ☐No	
14.	Has your country adopted the EU 2018 case definitions for communicable diseases? ☐Yes ☐No If no, what case definitions are used (e.g. WHO, other)?	
15.	Where can healthcare professionals find the case definitions of communicable diseases? ☐ Public Health Institute webpage (please provide the relevant URLs/links) ☐ Documents disseminated to healthcare settings ☐ Other (please specify): ☐ Not available	
16.	Are there protocols or guidance documents for clinicians and other healthcare professionals on how to report cases of communicable diseases? ☐Yes ☐No If yes, where can they find them? ☐ Public Health Institute webpage (please provide the relevant URLs/links) ☐ Documents disseminated to healthcare settings ☐ Other (please specify): ☐ Not available	
17.	How does the national surveillance institute collect and record its data? ☐ In a web-based system with a central database. ☐ In a system with distributed databases (data stored in district surveillance units and copied to the national level). ☐ In a paper-based system with a central computerised database at national level. ☐ In a paper-based system. ☐ Other, please describe:	

	Parameters	Comments
18.	Is there any manual surveillance data entry at the national level? ☐Yes ☐No If yes, please briefly describe.	
19.	Are there common agreed variables for each disease? ☐Yes ☐No	
20.	Are there reporting protocols for each disease (group)? ☐Yes ☐No If no, for which diseases (groups) are reporting protocols missing?	
21.	The collected data for each communicable disease are: ☐ case-based ☐ aggregated ☐ mixed Please specify the diseases for which the collected data are aggregated: Please specify the diseases for which the collection of data is based on a mixed approach:	
22.	Is there a specific reporting form for each communicable disease? ☐Yes ☐No If no, please briefly describe what kind of reporting forms are used:	
23.	Do the reporting forms include both clinical and laboratory data? ☐Yes ☐No If no, are there separate forms for clinicians and laboratories? ☐Yes ☐No	
24.	Do reporting forms include all variables required for reporting to TESSy? ☐Yes ☐No If no, please specify the communicable diseases for which the forms do not include all variables required for reporting to TESSy. If no, is there another way of collecting the necessary information (e.g. electronic health records)?	
25.	Indicate the categories of healthcare professionals who are required/able to report cases to public health authorities. ☐Medical doctor ☐Nurse ☐Laboratory staff ☐Other, please describe:	
26.	Please list the international agencies to which your country reports national surveillance data. Include the name of the reporting system, the diseases covered, the reporting frequency and the data format (case-based or aggregate).	

	Parameters	Comments
3. Data quality		
27.	Are there any parts of the country or population segments missing systematically? ☐Yes ☐No If yes, please briefly describe.	
28.	Do you validate your routine surveillance data? ☐Yes ☐No If yes, which of the following possible errors are routinely checked? ☐ Variable coding errors ☐ Duplicates ☐ Logical links between case data ☐ Other (please specify):	
29.	Is any of the validation automated? ☐Yes ☐No Does it involve any of the subnational levels? ☐Yes ☐No If yes, please briefly describe:	
30.	Do you monitor the number of missing or unknown data fields in your surveillance database? ☐Yes ☐No If yes, please briefly describe the disease or diseases, findings and actions taken for further improvement.	
31.	Do you monitor the timeliness of national surveillance systems? ☐Yes ☐No If yes, please briefly describe the disease or diseases, findings and actions taken for further improvement.	
32.	Do you systematically monitor data quality, as described in Questions 28 - 31? ☐Yes ☐No	
33.	Do you have defined minimum thresholds and targets for data quality (such as completeness or timeliness)? ☐Yes ☐No If yes, please briefly describe:	
34.	Have you ever measured the proportion of laboratory-confirmed cases out of the total number of reported cases in your surveillance system? ☐Yes ☐No If yes, please briefly describe the disease or diseases, findings and actions taken for further improvement.	

	Parameters	Comments
35.	Have you ever estimated the number/proportion of actual cases of a communicable disease detected by the surveillance system (under-diagnosis/ underreporting)? ☐Yes ☐No If yes, please briefly describe the disease or diseases, findings and actions taken for further improvement.	
36.	Do you provide regular data quality feedback to your data providers? ☐Yes ☐No If yes, please briefly describe how often you give data quality feedback to your data providers. If yes, when was the last time you gave data quality feedback to your data provider?	
4. Data management		
37.	Please briefly describe the following aspects of the databases and information systems used for surveillance at national level: ✓ Data entry (who) ✓ Database architecture and storage.	
38.	Has your country implemented the provisions of the EU General Data Protection Regulation (GDPR)? ☐Yes ☐No If yes, please provide a copy of your Data Protection Impact Assessment.	
39.	Personal data: Do you use unique identifiers that might allow persons to be tracked and identified within and/or across surveillance systems? ☐Yes ☐No If yes, please describe how these identifiers are used. Do you take any steps to pseudonymise or anonymise these data? ☐Yes ☐No If yes, please briefly describe.	
40.	Are your surveillance databases integrated at local/regional/national level?	
41.	Data linkage between epi and lab: are you able to reconcile your laboratory data with your notification data? ☐Yes ☐No	
42.	Is it possible to track and merge data across healthcare sectors (GPs, hospitals)? For example is it possible to follow the *same* patient through the healthcare system as he/she progresses from a mild to a severe case? ☐Yes ☐No	

	Parameters	Comments
43.	Indicate if there is data linkage between the communicable disease surveillance system and any of the systems listed below? ☐ Food safety ☐ Veterinary surveillance ☐ Vaccination registry ☐ Mortality surveillance ☐ Environmental surveillance ○ Potable water monitoring ☐ Blood and tissue product safety ☐ Non-communicable disease surveillance ☐ Other (please specify):	
5. Data analysis		
44.	Do you perform any routine descriptive analysis of your surveillance data? ☐Yes ☐No a. If yes are disease rates routinely calculated? ☐Yes ☐No If yes, what denominators are used? b. If yes, are national rates compared to EU/EEA rates to identify significant differences that may represent a data quality issue? ☐Yes ☐No	
45.	Please check the boxes below to indicate the administrative level (district, regional, national) at which descriptive data analysis is routinely performed. ☐ District ☐ Regional ☐ National	
46.	Are trends routinely analysed for relevant diseases? ☐Yes ☐No If yes, please give some examples.	
47.	Are risk factor studies conducted for selected diseases? ☐Yes ☐No If yes, please give some examples.	
48.	How often do you perform routine data analysis for each communicable disease?	
49.	Is any of the analysis automated? ☐Yes ☐No If yes, please specify:	
50.	It there any (internal) public health action following routine data analysis? ☐Yes ☐No If yes, please specify:	

	Parameters	Comments
6. Dissemination of communicable disease surveillance data		
51.	Please check below the administrative level (district, regional, national) at which communicable disease surveillance data are disseminated. ☐ District ☐ Regional ☐ National	
52.	Dissemination of results at district level (if applicable): a. Please give examples of reports or bulletins that regularly present surveillance data. b. Please indicate the frequency of production: ☐ Weekly report ☐ Monthly report ☐ Quarterly report ☐ Annual report ☐ Ad hoc report ☐ Other (please specify): c. Who are the recipients? Are the reports published online? ☐Yes ☐No	
53.	Dissemination of results at regional level (if applicable): a. Please give examples of reports or bulletins that regularly present surveillance data. b. Please indicate the frequency of production: ☐ Weekly report ☐ Monthly report ☐ Quarterly report ☐ Annual report ☐ Ad hoc report ☐ Other (please specify): c. Who are the recipients? Are the reports published online? ☐Yes ☐No	
54.	Dissemination of results at national level (if applicable): a. Please give examples of reports or bulletins that regularly present surveillance data. b. Please indicate the frequency of production: ☐ Weekly report ☐ Monthly report ☐ Quarterly report ☐ Annual report ☐ Ad hoc report ☐ Other (please specify): c. Who are the recipients? Are the reports published online? ☐Yes ☐No	
55.	Do you have any automated outputs, such as reports, dashboards, etc.? ☐Yes ☐No If yes, please briefly describe:	

	Parameters	Comments
7. Outbreak detection		
56.	Are routine surveillance data used for outbreak detection? ☐Yes ☐No If yes, how: a. Is there an automated signal detection? ☐Yes ☐No b. Do you perform systematic monitoring of the number of cases (per disease) and compare them with previous time periods? ☐Yes ☐No c. Do you have capacity for molecular surveillance? ☐Yes ☐No If yes, for which diseases? d. Other (please specify):	
57.	What criteria are used to determine if there is an outbreak in your country?	
58.	Who reports to the national level when an outbreak is detected at local or regional level?	
59.	Are there guidelines, or standard operating procedures (SOP), or regulations for reporting outbreaks? ☐Yes ☐No If yes, please briefly describe and provide a copy of the relevant documents.	
60.	Please list any major outbreaks that have occurred in your country during the last year. Which ones were detected through indicator–based (routine) surveillance? Please provide representative copies of recent outbreak reports.	
8. Capacity		
61.	Are there communicable diseases for which there is no laboratory capacity to confirm a suspect case? ☐Yes ☐No If yes, for which diseases? If yes, is there any cooperation with laboratories in other countries to enable confirmation of these diseases? ☐Yes ☐No If yes, please briefly describe.	
62.	Is there an established regular training programme for healthcare professionals on communicable disease case reporting? ☐Yes ☐No If yes, please describe it briefly:	

Parameters		Comments		
63.	When was the last time healthcare professionals were informed/trained on communicable disease case definitions and reporting?			
64.	How many surveillance staff in each of the following categories does your country have at each administrative level? If there is no structure at the regional or district level, please write NA (=Not Applicable)	National level	Regional level	District level
	Epidemiologists			
	Data managers			
	Administrative staff			
	Other (please specify):			
	Other (please specify):			
65.	Rate your country's capacity from 1-5 (1=Very poor, 2=Poor, 3=Fair, 4=Good, 5=Excellent) in the following infrastructural aspects at each administrative level. If there is no structure at the regional or district level, please write NA (=Not Applicable)	National level	Regional level	District level
	Microbiology			
	Computers			
	High-speed internet access			
	Statistical software package			
	Bioinformatics			
	Other (-please specify):			
	Other (-please specify):			