

How can we map data sources and why is it useful?

A close-up photograph of a map with several pushpins of different colors (blue, orange, red, green, black) pinned to it. The map shows various geographical features and place names, including 'Terrenho', 'Castelão', 'Esporões', 'Rabacão', 'Carvalho', 'Coriscada', 'Ervedosa', 'Juiz de Fora', and 'Viçosa'. The pushpins are arranged in a way that suggests they are marking specific locations or data points on the map.

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What is mapping of administrative data?

- Mapping of administrative data sources can help identify available administrative data sources which can be used for producing official statistics
- Mapping gives a full picture, e.g., within a sector:
 - ✓ Identify administrative data sources already used for official statistics
 - ✓ Identify administrative data sources which could be a new source for official statistics
 - Either replacing partly or entirely surveys or producing new information on society which is not yet published.



Why is mapping useful?

- ➡ To avoid requesting data that already exists (e.g., we use administrative data instead of asking questions in a survey)
- ➡ To understand the scope of possibilities of new statistics
- ➡ It improves cooperation within the National Statistics System



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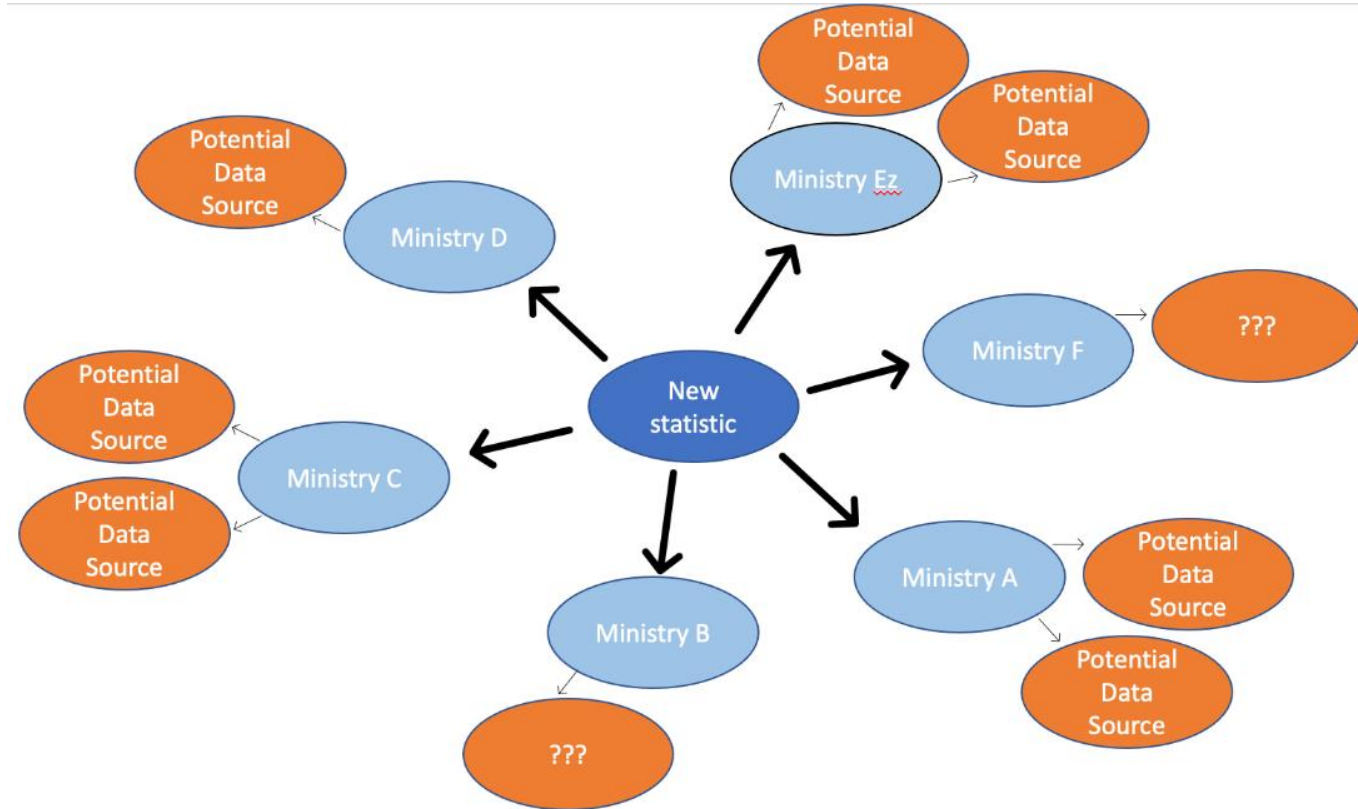
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Different types of approaches (inventories)

- There are two types of approaches to map to administrative data
 - Inventory of administrative data sources available within a sector that can be used for statistics
 - Inventory of statistics that are produced based on administrative data
- The information obtained during the mapping, can be stored in inventories:
 - National inventory of all administrative data sources
 - Specific inventories of administrative data for a sector



Example: what New Zealand did to identifying data sources for use in their census



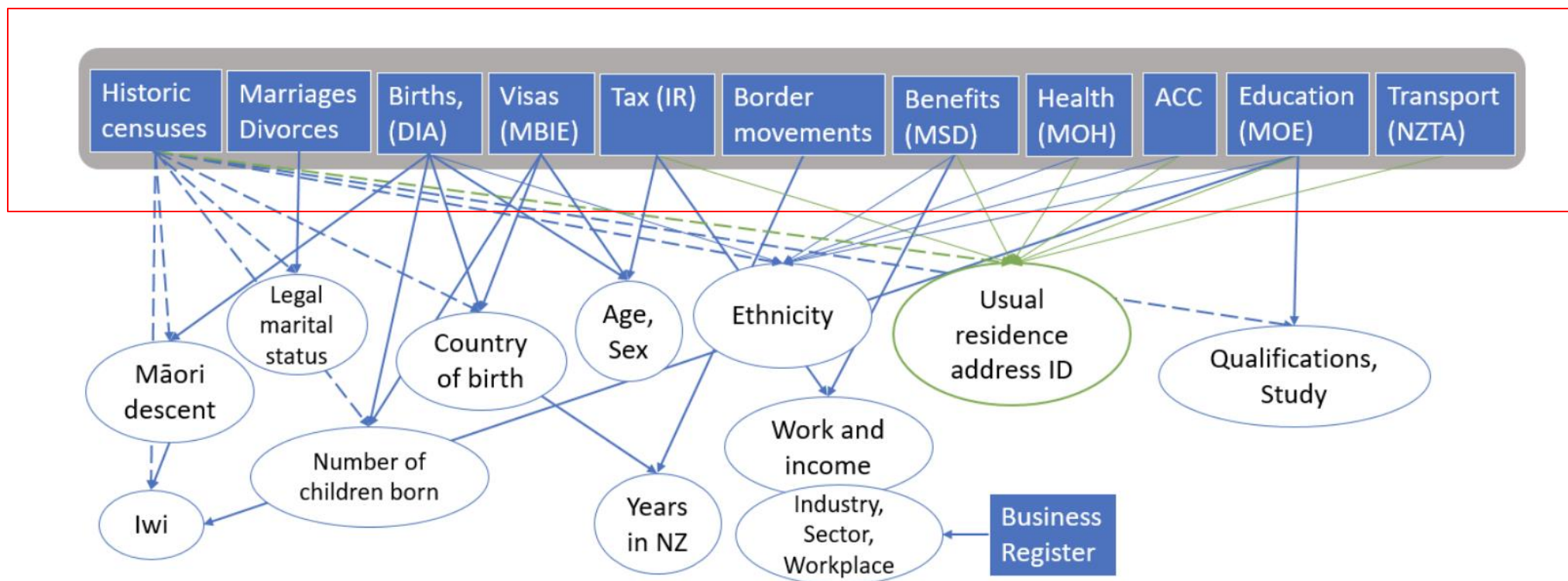
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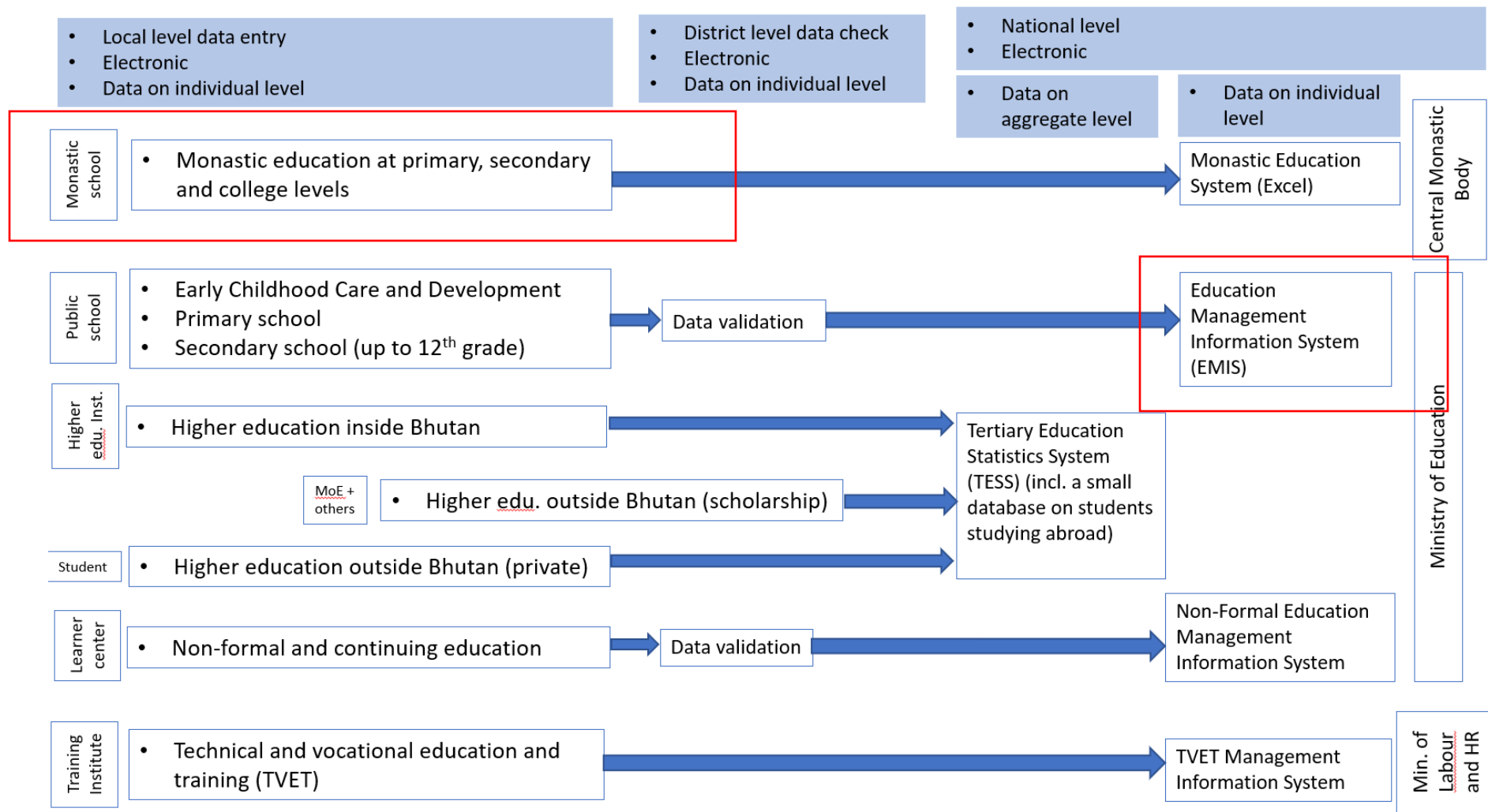
Example: New Zealand

Mapping admin data sources for data and statistics on life events

Figure 1. Administrative sources for census information about individuals



Example: Bhutan mapping of the education sector

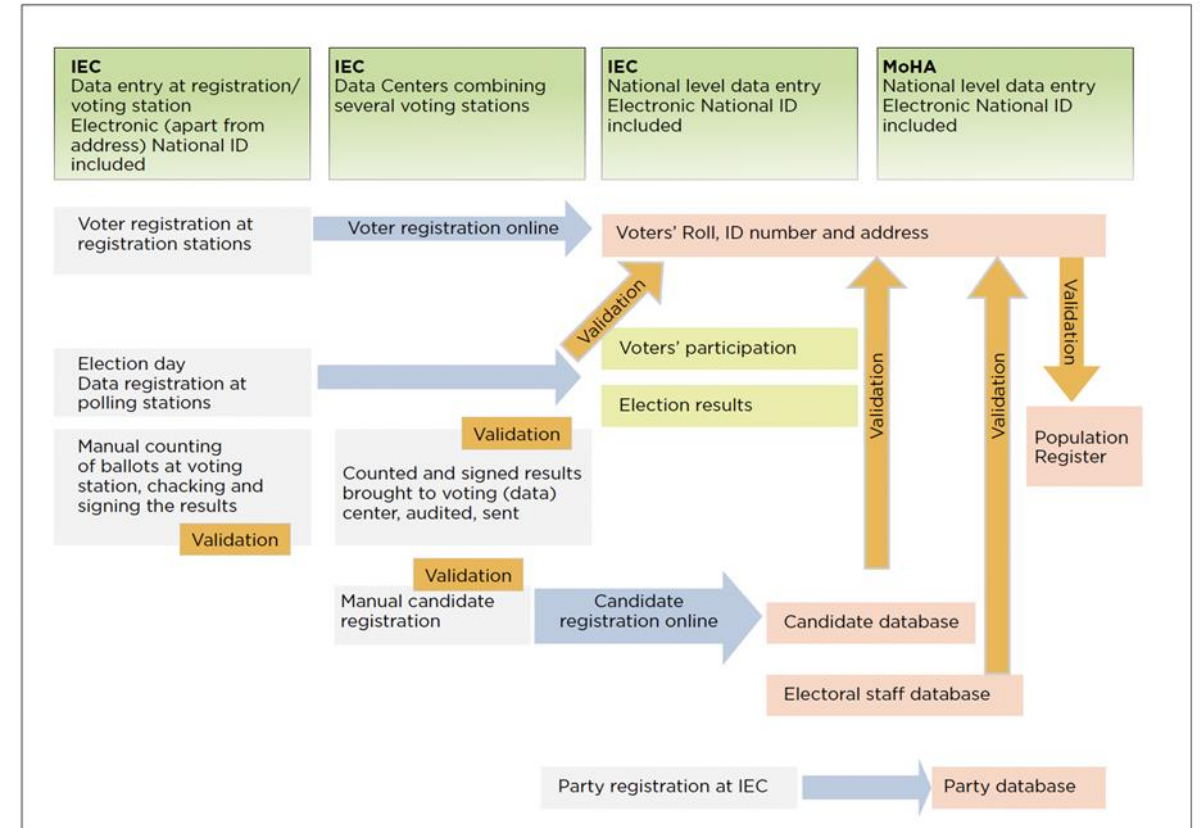


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Example: South Africa electoral data

- The mapping tool was used in South Africa by the Independent Electoral Commission and UN Women to map the electoral data system of South Africa
- the mapping identified that statistics on voter participation by age, sex and region/municipality can be produced
- It was also discussed that the information that the Electoral Commission holds is often more up to date than the information in the population register



Mapping can happen as part of developing a National Strategy for the Development of Statistics (NSDS)

The process of developing NSDS and engagement of relevant stakeholders is a perfect opportunity to get an overview of administrative data sources in the country



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Mapping tool to identify administrative data within a sector

Mapping tool for administrative data sources		
Basics		Administrative data source
1	Name of administrative data source	
2	Which department or ministry is the data holder?	
3	Contact person at the data holder:	
Information in the register		
4	What is the target population in the administrative data source?	
5	Is this register survey based?	
6	Is there any unique ID through which individuals/reporting units can be identified? Is it a national / ministry / data source specific code?	
7	Which variables does the register contain?	
8	Are there data gaps/missing variables that you know of?	
9	What is the earliest year from which the administrative data is available? (e.g., 2015 or similar)	
Data entry		
10	How is the administrative data collected/reported - from entry point to other levels?	
11	Is the data digitally available	
12	How frequent is the data updated by the data owner (Periodicity: Annual, quarterly, monthly, daily...)?	
13	Are the data at individual level or aggregate?	
Data sharing		
14	If there a formal agreement/MoU on data delivery with NSO? If yes, when is it from?	
15	How frequently is the data shared with other institutions in the NSS or with the NSO?	
16	In what format is the data received from the data owner?	
Data validation		
17	How is data validation performed?	
Usage of register		
18	Which statistics/indicators can the administrative data be used for?	
Known challenges		
19	What are the challenges, if any, with (the quality of) the data?	
20	Are there any human capacity gaps related to managing and analysing the data?	
Other relevant data for the whole sector		
21	Which other similar data exist outside the register/s?	
22	Which organization collects/holds this data?	
23	Is this data survey-based?	
24	General challenges and questions	



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Example: Health sector



Basics		Data source (example responses)
1	Name of data source (for instance vaccination register)	Vaccination register
2	Which agency is the data holder?	Ministry of Health
3	Contact person at the data holder (incl. email address):	Head of register unit, Ms. Anna Alana, aa@moh.xx
Information in the data source		
4	What is the main objective of the data collection for this source?	Record vaccinations
5	What is the target population in the data source?	Children in vaccination age (0-2 years old)
6	Is this data based on operations or survey based?	Operations, all health workers who vaccinate record and report
7	Is there any unique ID through which individuals/reporting units can be identified?	There is a vaccine ID, and the birth registration number of the child is also recorded if available
8	How wide is the coverage of the unique ID?	Birth registration IDs are available for all registered children, current coverage is at 80 %
9	Which variables does the database contain (mention all)?	Type of vaccine provided, date the vaccine was provided, birth registration number of child, name of child, age of child
10	Do you have metadata (descriptions, standards, definitions etc)	No
11	Is registration mandatory?	Yes
12	Are there data gaps, missing variables, under coverage or over coverage that you know of?	Not all children are vaccinated, and there is some under-reporting in vaccinations given
13	What is the earliest year from which the data is available? (e.g., 2015 or similar)	2006
14	Is there a continuous time series or are there gaps?	Yes, data are available for all years from 2006



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Example: Health sector

Data validation		
27	How is data validation performed?	<i>MoH has automated checks built in the app. In addition, the statistician is regularly checking the data over time and against other measures</i>
Known challenges		
28	What are the challenges, if any, with (the quality of) the data (e.g. over-reporting, under-reporting, groups missing)?	<i>There are challenges with some health workers not reporting on all vaccinations provided</i>
29	Are there any human capacity gaps related to managing and analysing the data? If yes, please describe	<i>The statistician is overwhelmed, and there is high turnover</i>

Data entry		
15	How are the data collected initially?	<i>Health workers record the vaccination</i>
16	Is the data digitally available	<i>Yes</i>
17	What is the data flow from initial collection to central level (is there sharing from sub-national to national level for example)?	<i>Health workers use an app to record the vaccination which goes automatically to the Ministry of Health</i>
18	How frequent is the data updated by the data holder (Periodicity: Annual, quarterly, monthly, daily...)?	<i>The Ministry gets data in real time (with some delays due to internet connectivity challenges)</i>
19	Are the data at individual level or aggregate?	<i>Individual level</i>
20	Is there a manual with instructions for data entry?	<i>Yes, a guide on how to use the app exists</i>
Data sharing		
21	Are there supporting legal standards/ a legal framework that allow data sharing for statistical or other purposes?	<i>Yes, the statistics act specifies that data need to be shared for statistical purposes. The public health act specifies that only anonymized information can be shared.</i>
22	If there a valid formal agreement/MoU on sharing data with the NSO? If yes, when is it from?	<i>Yes, an MoU exists, but it is only related to birth registration</i>
23	If yes to above, is the MoU/agreement currently made use of/operational?	<i>Yes, but only related to birth registration</i>
24	How frequently is the data shared with other institutions (with the NSO and/or within the NSS)?	<i>Vaccination data are currently not shared with others</i>
25	In what format is the data provided to the recipients?	<i>-</i>
26	Do officials sign a confidentiality agreement in relation to working with individual data?	<i>Yes, this is the practice both at MoH and NSO</i>



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Thank you!

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