Cambodia Tuberculosis Monitoring and Evaluation Capacity Assessment Lite Tool

August 2022

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Background

Capacity is the ability of an individual or organization to carry out stated objectives. In the context of TB M&E, the objectives of an M&E system are to provide quality data and to guide planning, coordination, and implementation of the TB program; assess the effectiveness of the program; and identify areas for improvement. To perform critical M&E functions, the TB M&E staff need to have the ability to carry out:

- Data collection and reporting
- Data quality assurance
- Data analysis, presentation, interpretation, and communication
- Data use and demand generation

Purpose of M&E capacity assessment tool

The purpose of this capacity assessment tool is to provide a self-assessment tool to the TB M&E staff to gauge their own M&E knowledge and skills and thereby identify where they need to improve.

They can go through this assessment more than one time and see improvement in specific areas. The supervisors can also use this tool during their supervisory visit to assess staff's TB M&E knowledge and skills and mentor them.

The specific objectives of this tool are to:

- Assess clarity of understanding and interpreting TB M&E and surveillance indicators
- Assess knowledge of existing data quality assurance practices
- Assess knowledge of existing data use practices

Assessment method

This is a self-paced assessment that can be completed by TB staff from any level and can be taken at any time. As the host of this tool, CENAT will be able to access enrollment/attendee lists and follow up with reminders for completion, feedback, and certificates for completion.

How the results of the assessment will be used

Self-assessment will help the individual staff to gauge their level of knowledge and skills. Based on these scores, they will know which area of the TB M&E knowledge they need to improve and can decide to select the relevant eLearning module(s) on TB M&E and further practice the skills.

Assessment score

The scores will be broken down by sections and then will be summed up at the end. The score will range as follows:

- From 27–37: Excellent
- From 24–26: Good
- Below 24: Poor (Will not be eligible to receive the certificate)

Section 1: Definition of different types of TB & interpreting TB M&E and surveillance indicators

Please select the most accurate answer.	
Q01	Which of the following can be classified as bacteriologically confirmed pulmonary tuberculosis? A. Patients whose lungs are infected with tuberculosis bacilli, without any obvious manifestation of the disease or laboratory evidence B. Patients who have been diagnosed with bacteriologically confirmed tuberculosis using sputum smear microscopy or sputum culture, or using Xpert MTB/RIF C. Patients with tuberculosis showing effusion of the lungs even though there is no radiological abnormality in the lungs D. Patients with signs and symptoms of tuberculosis as well as radiological abnormality in the lungs but no laboratory evidence
Q02	Which of the following statements is **not correct**? A. A relapse patient is one who was treated for TB but was defaulted for a long time and is being treated again for TB. B. A new TB patient is one who is starting anti-TB treatment for the first time for the current episode of the disease, even though the patient might have been treated for another episode of the infection previously. C. RR-TB (rifampicin-resistant TB) includes all cases of resistance to rifampicin detected using phenotypic or genotypic methods, with or without resistance to other anti-TB drugs. It includes any resistance to rifampicin, whether monoresistance, multidrug resistance, polydrug resistance, or extensive drug resistance. D. An HIV-negative TB patient who is negative at the time of TB diagnosis and develops HIV infection during the course of TB treatment should be reclassified as an HIV-positive TB patient.
Q03	Which of the following statements is **not** correct to classify a **TB treatment success case**? A. TB patient who was on anti-TB treatment for over 5 months even though their treatment outcome was not evaluated B. A pulmonary TB patient with bacteriologically confirmed TB at the beginning of treatment who was smear- or culture-negative in the last month of treatment and on at least one previous occasion C. A TB patient who has completed the treatment without evidence of failure but who does not have a negative sputum smear or culture result in the last month of treatment and on at least one previous occasion either because tests were not done or because results are unavailable D. A TB patient who no longer complains of any symptoms of tuberculosis
Q04	If there are 40,000 cases of TB annually, and each of these patients have on an average 3 close contacts (i.e. members of their household), and the prevalence of active TB among the close contacts is 3%, how many cases of TB can be identified per year by investigating contacts of TB index patients? A. 12,000 B. 3,600 C. 1,200 D. 4,000
Q05	The estimated number of TB cases (all forms) in the OD catchment area for the current period is 265. The health facilities in your OD have registered 87 TB patients during this period. Calculate the TB treatment coverage in the OD for the current period. A. 30% B. 27% C. 23% D. 33%

Q06	Which is the correct method to calculate the RR/MDR TB treatment success rate for 2018? A. Number of rifampicin-resistant (RR)/multidrug-resistant (MDR)-TB cases who were cured in 2019 B. Percent of rifampicin-resistant (RR)/multidrug-resistant (MDR)-TB cases successfully enrolled for treatment in 2018 C. Number of rifampicin-resistant (RR)/multidrug-resistant (MDR)-TB cases who were successfully treated by 2018 D. Percent of rifampicin-resistant (RR)/multidrug-resistant (MDR)-TB cases who were enrolled on treatment in 2018 and subsequently were successfully treated
Q07	Which statements below are not correct for the indicator "Percent of extrapulmonary TB cases notified"? A. The numerator is new and relapse extrapulmonary TB cases who were bacteriologically or clinically diagnosed during the reporting period. B. The numerator is extrapulmonary TB cases (new and relapse, bacteriologically confirmed, or clinically diagnosed) notified during the reporting period. C. The denominator is total number of bacteriologically diagnosed extrapulmonary cases during the reporting period. D. The denominator is the total number of new and relapse TB cases and cases with unknown previous TB treatment history during the reporting period.
Q08	Which indicator is calculated using these data: Number of HIV-positive TB patients that started or continued on ART during the reporting period divided by Number of new and relapse TB patients recorded as HIV-positive during the reporting period? # HIV-positive TB patients started/continued on ART _____ # of new and relapse TB patients recorded HIV+ A. Percent of HIV-positive TB patients started or continued on ART B. Percent of DR-TB patients recorded as HIV-positive C. Percent of TB patients with known HIV status D. Percent of TB patients recorded as HIV-positive
Q09	Which of the statements below are relevant to the indicator: "Number of close contacts of bacteriologically confirmed pulmonary TB cases who were screened for TB infection (tested for TB infection) according to national screening protocols during the specified reporting period"? A. Every contact will first be assessed for active TB as per national protocols; once active TB has been ruled out, assessment for TB infection becomes relevant. B. This indicator is calculated as "total number of contacts screened" (TB infection screening protocols may vary by country; some countries may screen using a screening test such as the tuberculin skin test [TST] or interferon-gamma release assay [IGRA]). C. This indicator is used to monitor performance on intensified TB case finding. D. All of the above E. Statements 'A' and 'B' only
Q10	Which one is **not** directly related to measuring the internal/external consistency of reported data? A. Whether data are free of outliers (within bounds), by assessing whether specific reported values within the selected period (such as monthly) are extreme, relative to the other values reported B. Trends in reporting over time, to identify extreme or implausible values year-to-year C. Reports are submitted/received on time through the levels of the information system data flow D. The program indicator compared to other indicators with which they have a predictable relationship, to determine whether the expected relationship exists between the two indicators
Total score:	**_____ / 13 points**

Section 2: TB M&E functions competency

Please choose the correct answers	
Q11	TB case notification is reviewed on a quarterly basis to: A. Take action and replenish medicines and other supplies (reduce stockouts of essential supplies) B. Plan preventive and promotive activities C. Identify disease outbreaks and to address epidemics D. All of the above
Q12	TB treatment outcomes (success, failure, default, lost to follow-up) are regularly monitored to: A. Know the effectiveness of interventions for ending TB B. Measure the extent of the population that is being screened for TB C. Know the treatment outcome rate D. Plan for improving follow-up care and lost-to-follow-up patient search E. Assess the knowledge of the staff on TB outcomes F. A, B, C, D
Q13	Why is age disaggregated data on key TB indicators important? A. Since TB is a disease of adults, the data is used to monitor whether people of age group 40 years and above are being properly diagnosed and treated. B. Age disaggregated data is required mainly for reporting to the national TB program. C. It helps to ensure equitable service coverage of people across all age groups. D. Age disaggregated data is difficult to get, and, therefore, it is not reported or used.
Q14	Why is gender disaggregated data on key TB indicators important? A. Since TB is a disease mostly of men, the data is used to monitor whether a higher number of men are being properly diagnosed and treated. B. Gender disaggregated data helps to know which group is most affected by TB. C. It helps to ensure equitable service coverage across all gender groups. D. B, C E. All of the above
Q15	How is geographical data on TB service coverage used? A. It helps to plan for providing directly observed treatment (DOT) to TB patients. B. The data is used to follow up people with TB. C. Geographical data is helpful for disease surveillance and monitoring epidemic response. D. Geographical data is mostly used to develop geographical information system (GIS) maps.
Q16	Why are population data needed (e.g., information on the number of people living in the catchment area, disaggregated by relevant characteristics, such as age and sex)? A. To use as the nominator for calculation of TB program performance indicators B. To use as the denominator for calculation of TB indicators C. To plan the delivery of various health services D. To calculate the workload of the health staff E. B, C F. All of the above
Total score:	**_____ / 6 points**

Section 3: Competency to perform M&E tasks

Solve the following problems in compiling data, calculating percentages, plotting data, and interpreting information.

Q17

The table below shows the quarterly screening results for Muk Kampul OD. In this OD, government facilities carry out active screening for TB. During a recent review of the data, it was discovered that youth (younger than age 24) account for a significant number of new TB infections. In response to this data, health centers in Muk Kampul OD regularly review TB data to inform decisions related to increasing the uptake of TB screening services among youth.

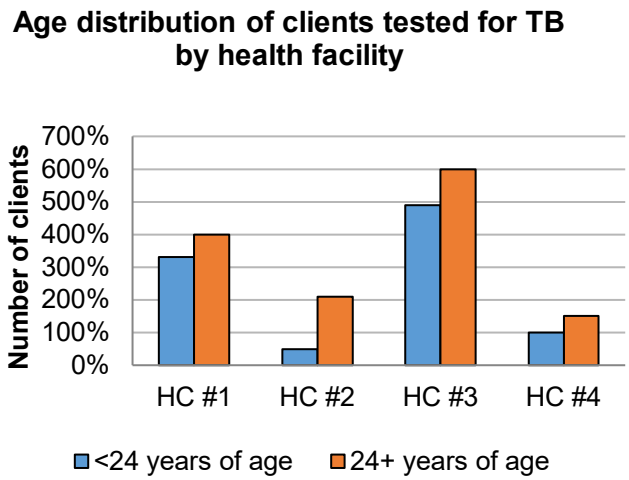
Table 1. TB counseling and testing monthly summary, December 2009

		HC # 1		HC # 2		HC # 3		HC # 4	
		Age of client (in years)							
TB Screening Indicators		<24	24+	<24	24+	<24	24+	<24	24+
TBS1	Number of clients screened for TB	341	401	61	226	501	623	108	151
TBS2	Number of clients tested for TB	339	399	53	220	494	600	108	151
TBS3	Number of clients who received their test results	338	399	40	214	431	487	107	151
TBS45	Number of clients who tested positive for TB	30	41	9	63	96	141	17	19
TBS6	Number of clients referred to TB treatment center	30	41	4	41	84	98	4	8

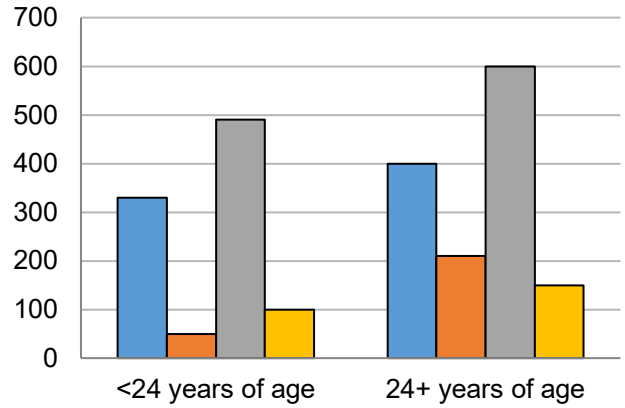
Develop a bar chart that shows the distribution of people, by their age groups, tested for TB at the four facilities in Muk Kampul OD.

Please select the correct chart:

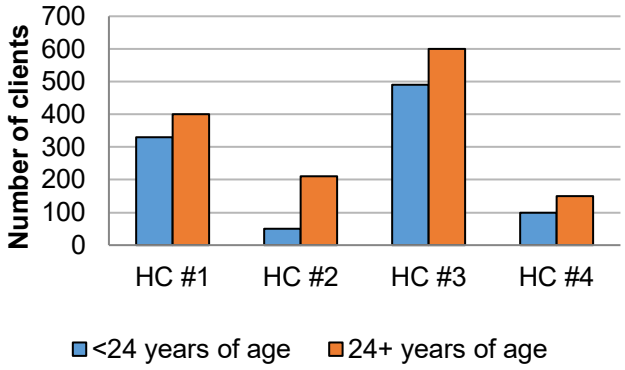
A.



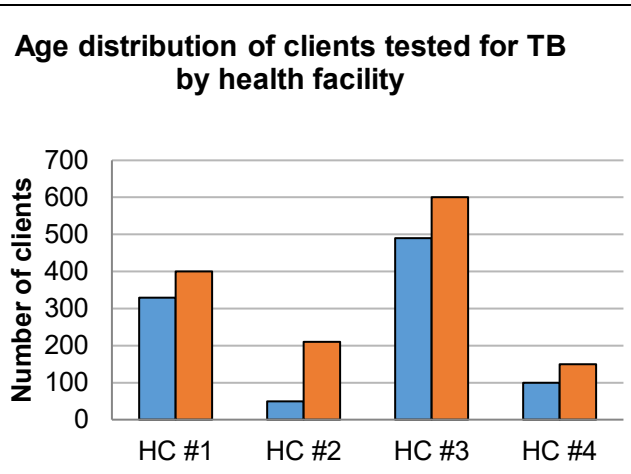
B.

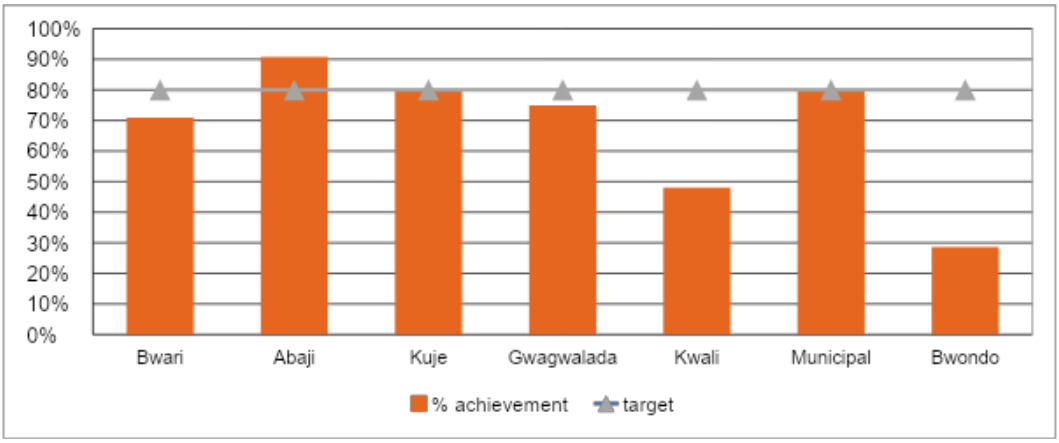
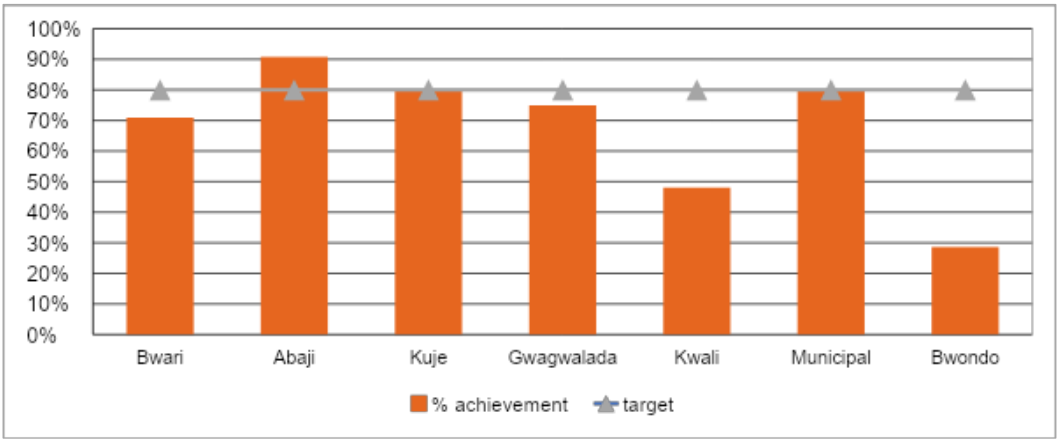

700
600
500
400
300
200
100
0
<24 years of age
24+ years of age

C.


Age distribution of clients tested for TB by health facility
Number of clients
700
600
500
400
300
200
100
0
HC #1
HC #2
HC #3
HC #4
<24 years of age
24+ years of age

D.


Age distribution of clients tested for TB by health facility
Number of clients
700
600
500
400
300
200
100
0
HC #1
HC #2
HC #3
HC #4

Q18	Investigating contacts of bacteriologically confirmed pulmonary TB patients is a key strategy to find missing TB cases. The government's National Strategic Plan set a goal to investigate contacts of all newly diagnosed bacteriologically confirmed pulmonary TB patients. To meet this goal, the National TB Program initiated an effort to visit households of every newly diagnosed bacteriologically confirmed pulmonary TB patient using the village health support group (VHSG). The target is to achieve at least 80% coverage of investigating the contacts of newly diagnosed bacteriologically confirmed pulmonary TB patients. (2 points) **Figure 1. Percent of bacteriologically confirmed pulmonary TB patients whose contacts were investigated in the period of January to December 2020 by a local government agency, as compared to the national target**  Among the districts shown in the above graph, which attained the target coverage rate (80%) by the end of 2020? A. Kuje B. Gwagwalada C. Abaji D. Municipal E. All the above
Q19	Investigating contacts of bacteriologically confirmed pulmonary TB patients is a key strategy to find missing TB cases. The government's National Strategic Plan set a goal to investigate contacts of all newly diagnosed bacteriologically confirmed pulmonary TB patients. To meet this goal, the National TB Program initiated an effort to visit households of every newly diagnosed bacteriologically confirmed pulmonary TB patient using the village health support group (VHSG). The target is to achieve at least 80% coverage of investigating the contacts of newly diagnosed bacteriologically confirmed pulmonary TB patients. **Figure 1. Percent of bacteriologically confirmed pulmonary TB patients whose contacts were investigated in the period of January to December 2020 by a local government agency, as compared to the national target** 

	Which of the statements below apply to this chart: A. The national target is to have 80% of the contacts investigated. B. Kwali has achieved less than 50% of the national target. C. Bwondo needs particular attention since they are over 50% points below the national target. D. The national target for contact investigation is that contacts of 80% or more of bacteriologically diagnosed pulmonary TB patients should be investigated for TB disease and TB infection. E. Bwari and Kwali have lower performance because the prevalence of TB is lower in those districts.
Q20	A survey in a health center catchment area found 500 children under five years of age who were malnourished. The total population of children less than five years of age in that catchment area was 5,000. What is the malnutrition rate? A. 10.1% B. 10% C. 9.9%
Q21	If the malnutrition rate in children under two years of age was 20% and the total number of children less than two years of age was 10,000, calculate the number of children who are malnourished. A. 2,000 children B. 2,200 children C. 2,220 children
Total score:	**_____ / 10 points**

Section 4: Data quality

Please select the correct answers

Q22

To ensure quality of data, which of the following aspects of data are assessed routinely?

A. Data accuracy, report timeliness, report completeness, internal consistency of data, and reliability of the reported indicators
B. Data accuracy, report timeliness, report completeness, and reliability of the reported indicators
C. Data accuracy, report timeliness, report completeness, and internal consistency of data
D. Data accuracy, report timeliness, report completeness, internal consistency, and external consistency

Q23

How is the availability of quarterly TB reports at a district health office monitored?

A. Checking whether the district office maintains a list of health facilities who have submitted their reports
B. Calculating the percent of reports available by dividing the total number of reports available by the total number of expected reports for that quarter
C. Reviewing the names of which health facilities have submitted the quarterly reports
D. All of the above

Q24

Which statements below are correct?

A. Verification factor (VF) calculates the accuracy of reported data of selected indicators by comparing with data in the source document.
B. VF is calculated by dividing recounted data by reported data.
C. If VF is <100%, it means there is over-reporting.
D. The acceptable range of VF could be 90%–110%.
E. All of the above

Q25

Table 2. provides data reported by five districts from 2018–2021.

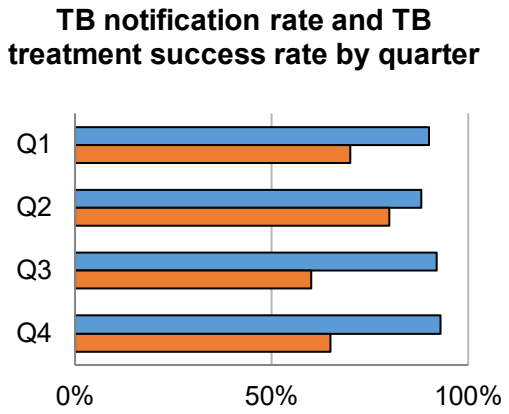
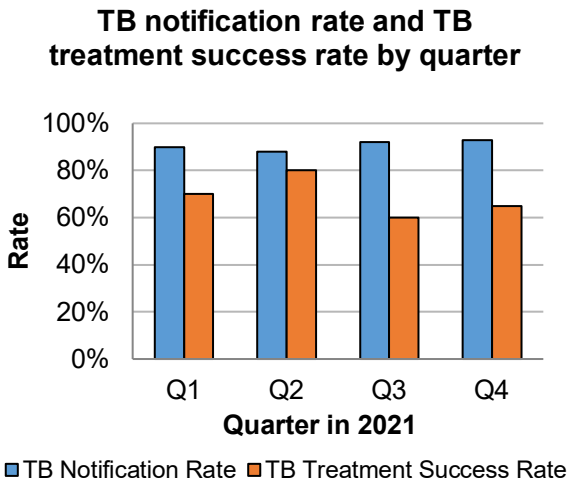
District	Year				Mean of Preceding 3 Years (2018-2021)	Ratio of 2021 to Mean of 2018-2021	% Difference between National and District Ratios
	2018	2019	2020	2021			
A	30242	29543	26848	32377	28878	1.12	0.03
B	19343	17322	16232	18819	17632	1.07	0.08
C	7512	7701	7403	7881	7539	1.05	0.09
D	15355	15047	14788	25123	15063	1.67	0.44
E	25998	23965	24023	24259	24662	0.98	0.16
National	**98450**	**93578**	**89294**	**108459**	**93774**	**1.16**	

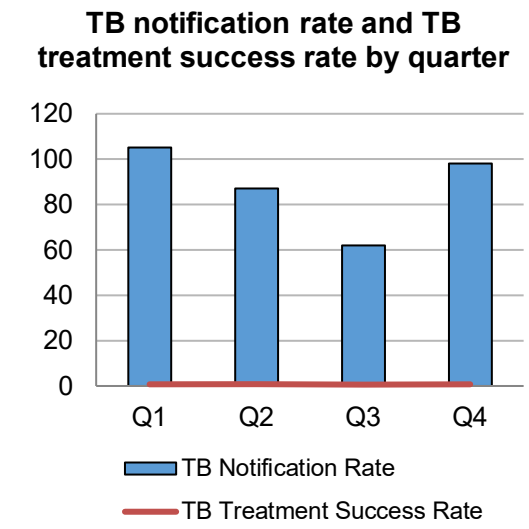
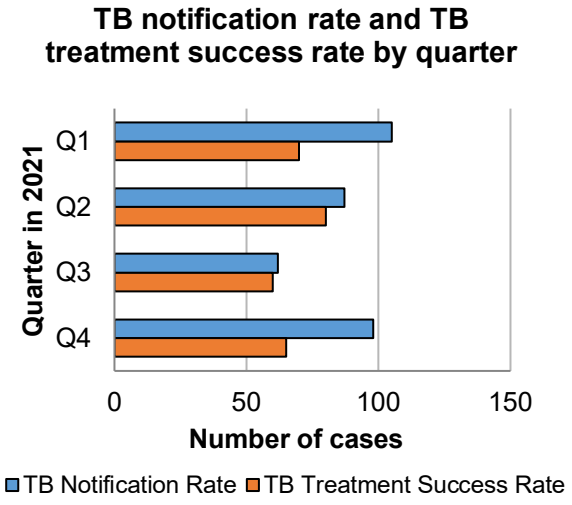
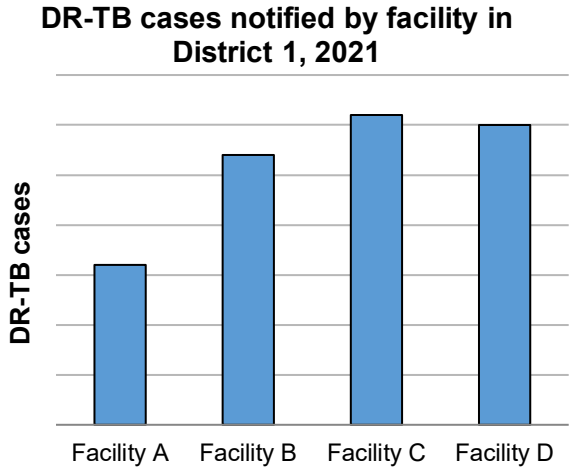
Considering the trend from 2018–2020, which district's data for 2021 is not internally consistent, and why?

A. District "C," because the number reported by this district is very low compared to other districts
B. District "E," because the number shows a drop in 2022 compared with the past three-years trend
C. District "D," because any difference between the district and national ratio that is ≥33% is considered as inconsistent, unless there is something dramatic happening
D. All districts, because every district is showing upward and downward fluctuations in reported figures over the years 2018–2021.

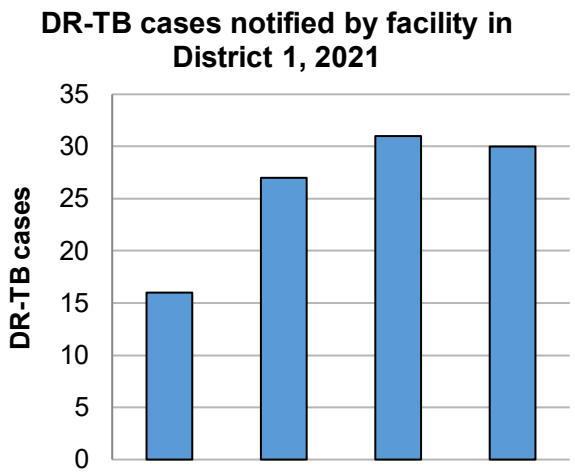
Total score: _____ **/ 4 points**

Section 5: Data processing and reporting

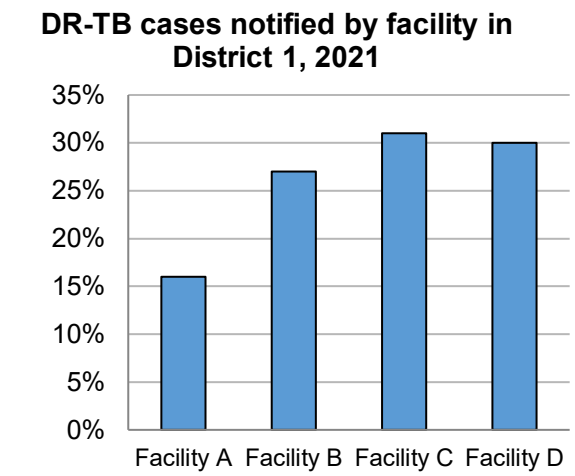
Please select the correct chart:	
Q26	Please select the graph that shows TB notification rate and TB treatment success rate for the past four quarters for your district. A. 
	B. 

	C. 
	D. 
Q27	Please select the chart that shows the comparison of number of DR-TB cases notified among facilities in the district. A. 

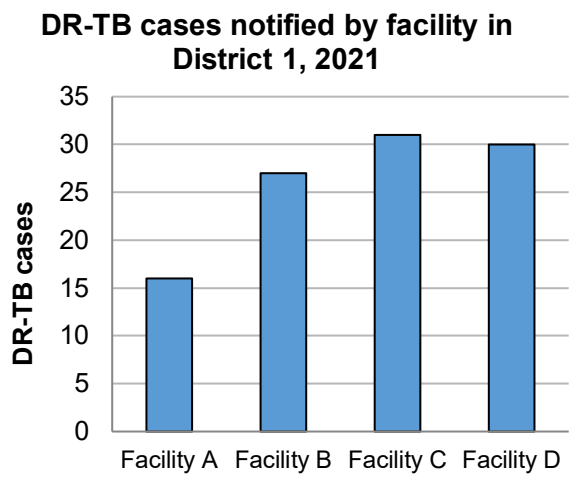
B.

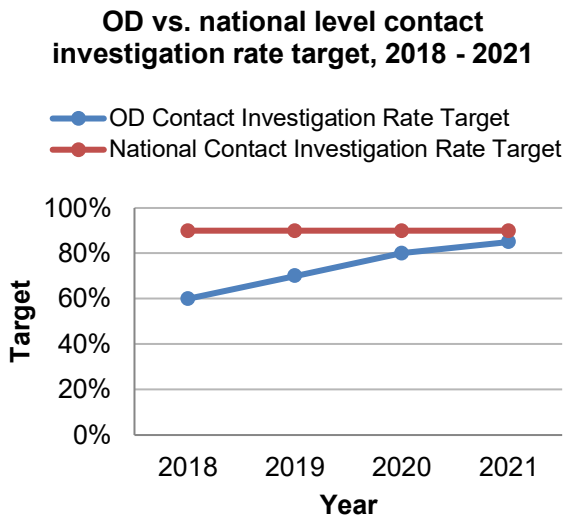
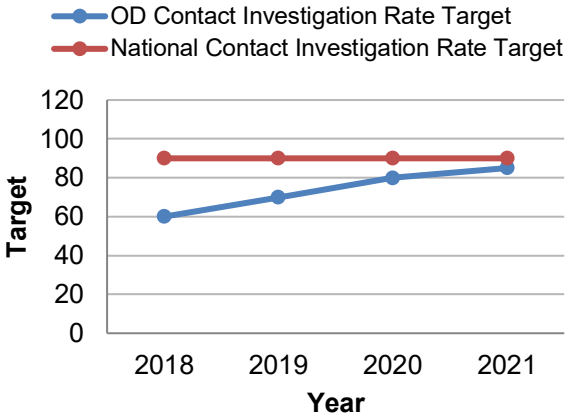
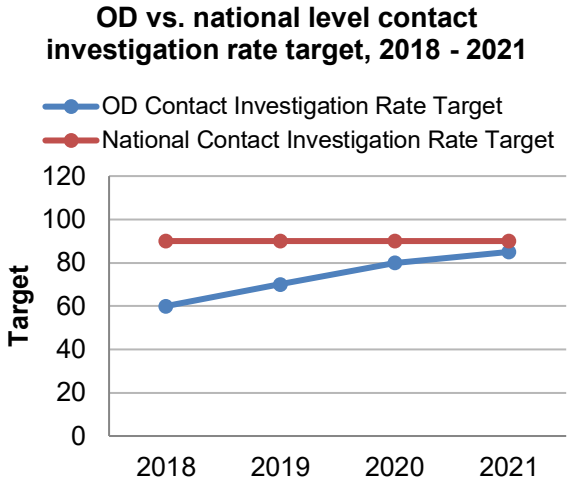

DR-TB cases notified by facility in District 1, 2021
DR-TB cases
35
30
25
20
15
10
5
0

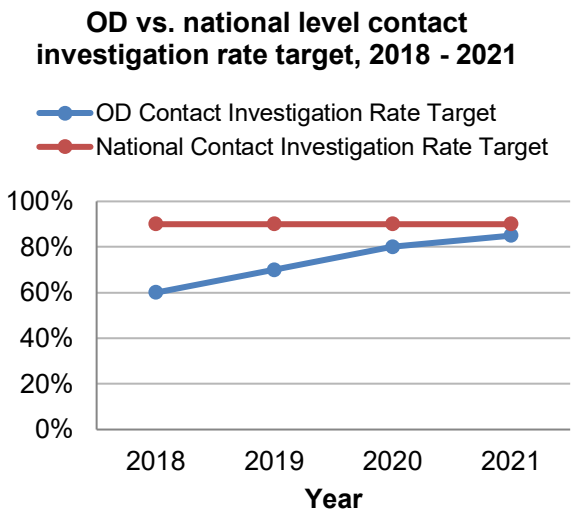
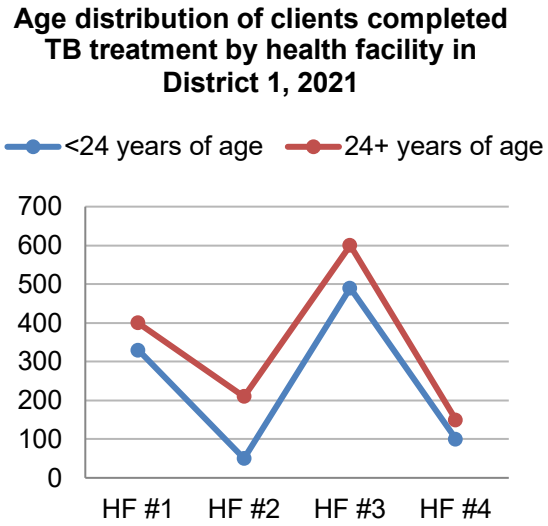
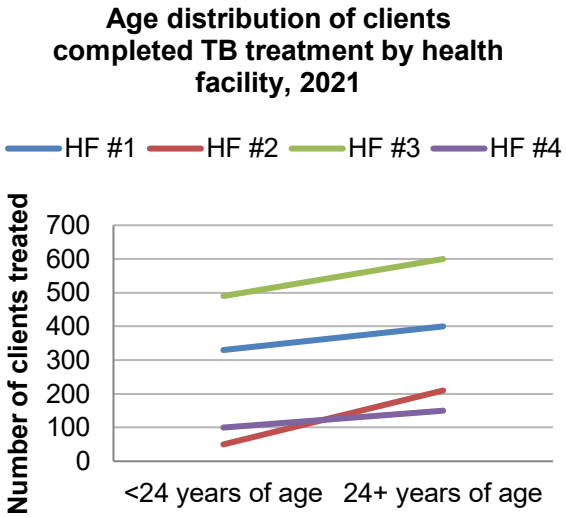
C.

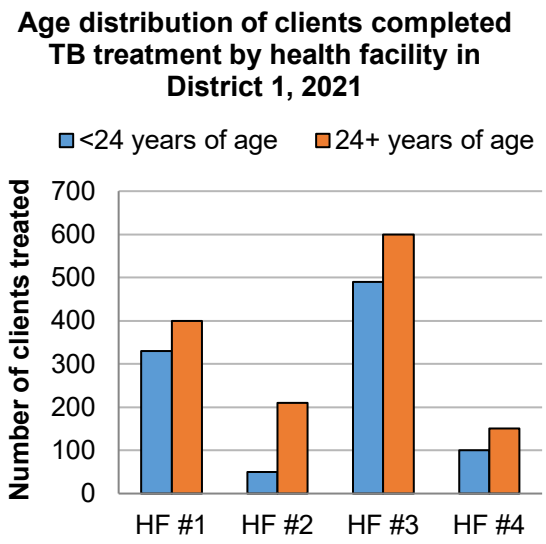
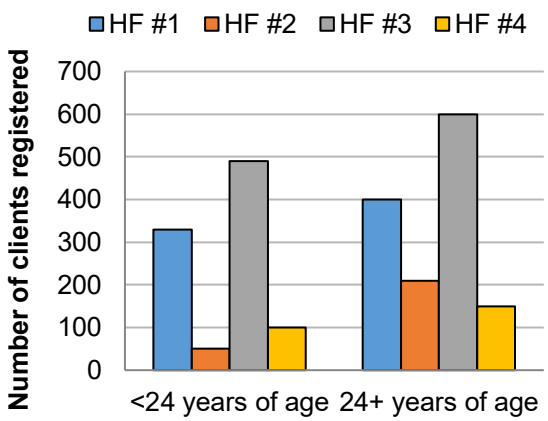

DR-TB cases notified by facility in District 1, 2021
35%
30%
25%
20%
15%
10%
5%
0%
Facility A
Facility B
Facility C
Facility D

D.


DR-TB cases notified by facility in District 1, 2021
DR-TB cases
35
30
25
20
15
10
5
0
Facility A
Facility B
Facility C
Facility D

Q28	Please select the graph that shows the comparison of the contact investigation target of your district versus the national contact investigation target. A. 
	B. 
	C. 

	D. 
Q29	Using data from the national TB MIS, develop a chart showing the number of TB patients treated successfully by each health facility, disaggregated by age in 2021. A. 
	B. 

	C. 
	D. 
Total Score	**_____ / 4 points**

Overall Score _____ / 37 points

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