

Subnational FPET: Data preparation & Run instructions

The following instructions will show you how to create new files for the 2021 version of FPET. CSVs for versions of FPET older than 2020 cannot be read in the current version of FPET. Below are the steps needed to create a new CSV in the format read by FPET.

You will need to create two CSVs- one with survey data and one with population data. A third CSV will need to be created if you would like to use service statistics.

Preparing Data

For a subnational FPET, you need to prepare data for surveys, population, and service statistics (if available).

Survey Data

For DHS and MICS, most surveys have data available at the subnational level. Using country reports, collect data on mCPR (married), tCPR (married), and unmet need (married). For unmarried women, the Track20 team can help you calculate these indicators if the microdata is available.

The key to survey data is that all administrative areas need to remain the same between surveys. To check if boundaries have changed between surveys, consult the map which is usually available at the beginning of a survey report. If boundaries have changed, special estimates are needed which in some cases can be calculated by the Track20 team.

Population Data

FPET uses annual estimates of married and unmarried women of reproductive age, from 1970-2030. This data may be available from government sources. If it is not, talk to Track20 about making population estimates using national data and the distribution of women of reproductive age by subnational area.

Service Statistics Data

Service statistics are often the easiest of subnational data to gather, since they are collected at the facility level and aggregated upwards to subnational and national numbers. Subnational service statistics must be at the same administrative unit as survey and population data. To use subnational service statistics in FPET, a subnational SStoEMU tool is needed to create subnational EMUs. Once you have confirmed that you have service statistics available at the same level as survey data, talk with the Track20 team about creating a subnational SStoEMU tool.

Creating a Subnational CSV for Survey data

Step 1: Create default country data from FPET.

1. Go to the "Prepare Data" Tab
2. Choose "Survey Data"
3. For Database, choose "Track20 2021"
4. Choose a country
5. Click "Load existing data"

Step 2: Download dataset from FPET.

1. Go to "Manage Data" tab
2. Click on the box next to desired database
3. Scroll to bottom and click "Download Selected Databases"
4. Open zip drive and save CSV in convenient location

Step 3: Editing CSV for Subnational Data

1. Open National CSV you saved

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	age_range	data_series	group	lyc	contracep	contracep	contracep	unmet_ne	is_pertain	pertaining	has_geogr	geographi	has_non	preg	age_group	modern	has_tradit	traditiona	has_abser	se_moder	se_traditi	se_unmet	se_log_r	se_log_r	se_log_r	source	id	record	id	region_code
1	15-49	Other	MW		0.039	0.015	0.054	0.015	N		N	N	N	None	None	N	N	N	N											
1	15-49	Other	MW				0.17		N		N	N	N	None	None	N	N	N	N											
1	15-49	Other	MW				0.13		N		N	N	N	None	None	N	N	N	N											
1	15-49	DHS	MW		0.217467	0.078564	0.296031		0.251574	N	N	N	N	None	None	N	N	N	N		0.006	0.0041	0.0055	0.0371	0.0599	0.0296				
1	15-49	Other	MW		0.076258	0.014742	0.091	0.014742		N		N	N	Y	None	None	N	N	N											
1	15-49	Other	MW				0.15		N		N	N	N	None	None	N	N	N	N											
1	15-49	Other	MW				0.033		N		N	N	N	None	None	N	N	N	N											
1	15-49	DHS	MW		0.090145	0.028275	0.11842		0.304718	N	N	N	N	None	None	N	N	N	N		0.0053	0.0032	0.0086	0.0656	0.1187	0.044				
0	15-49	National s	MW		0.169	0.07	0.239		0.375	N	N	N	N	None	None	N	N	N	N											
1	15-49	National s	MW		0.2021	0.0739	0.276		0.33	N	N	N	N	None	None	N	N	N	N											
1	15-49	Other	MW				0.069		N		N	N	N	None	None	N	N	N	N											
3	15-49	National s	MW		0.176	0.04	0.216	0.04	N		N	N	N	None	None	N	N	N	N											
4	15-49	National s	MW		0.126	0.052	0.178	0.052	N		N	N	N	None	None	N	N	N	N											
5	15-49	Other	MW		0.252	0.068	0.32	0.068	N		N	N	N	None	None	N	N	N	N											
6	15-49	Other	MW				0.055		N		N	N	N	None	None	N	N	N	N											
7	15-49	Other	MW		0.184	0.075	0.259	0.075	N		N	N	N	None	None	N	N	N	N											
8	15-49	Other	MW		0.193	0.077	0.27	0.077	N		N	N	N	None	None	N	N	N	N											
9	15-49	DHS	MW		0.260976	0.093117	0.354093		0.200847	N	N	N	N	None	None	N	N	N	N		0.0069	0.0047	0.006	0.0382	0.059	0.0368				
0	15-49	DHS	MW		0.25	0.092	0.342		0.173	N	N	N	N	None	None	N	N	N	N											
1	15-49	National s	MW				0.32		N		Y	Excluding	N	None	None	N	N	N	N											
2	15-49	DHS	MW		0.22	0.047	0.267		0.258	N	N	N	N	None	None	N	N	N	N											
3	15-49	DHS	MW		0.245	0.05	0.295		0.208	N	N	N	N	None	None	N	N	N	N											
4	15-49	DHS	MW		0.244	0.065	0.309		0.177	N	N	N	N	None	None	N	N	N	N											
5	15-49	DHS	MW		0.187	0.062	0.249		0.31	N	N	N	N	None	None	N	N	N	N											
6	15-49	DHS	MW		0.195	0.066	0.281		0.255	N	N	N	N	None	None	N	N	N	N											
7	15-49	DHS	MW		0.232	0.077	0.309		0.205	N	N	N	N	None	None	N	N	N	N											
8	15-49	DHS	MW		0.134	0.01	0.144		0.319	N	N	N	N	None	None	N	N	N	N											
9	15-49	DHS	MW		0.163	0.031	0.195		0.312	N	N	N	N	None	None	N	N	N	N											
0	15-49	DHS	MW		0.14	0.058	0.198		0.216	N	N	N	N	None	None	N	N	N	N											

7. Save your CSV with an informational name, for example “Pakistan Subnational Survey.CSV”

Creating a Subnational CSV for Population data

Step 1: Create default country data from FPET.

1. Go to the “Prepare Data” Tab
2. Click on “Population Data”
3. For Database, choose “UNPD 2021”
4. Choose a country
5. Click “Load existing data”
6. Under “Data set name,” give your dataset a name, for example “Pakistan Population Data”
7. Click Save

Step 2: Download dataset from FPET.

1. Go to “Manage Data” tab
2. Click on the box next to desired database
3. Scroll to bottom and click “Download Selected Databases”
4. Open zip drive and save CSV in convenient location

Survey data

Population data

Service statistics

Database:
Country:

UNPD 2019
Pakistan

LOAD EXISTING DATA

Region code	In union?	Age	Year	Population
	X	15-49	1970	3058720
	✓	15-49	1970	9307712
	X	15-49	1971	3142319
	✓	15-49	1971	9519679
	X	15-49	1972	3246009
	✓	15-49	1972	9744564
	X	15-49	1973	3366669

ADD NEW RECORD

DELETE SELECTED ROW

CLEAR DATA

Data set name

Pakistan Population Data

SAVE

Step 3: Editing CSV for Subnational Population Data

1. Open National Population CSV that you saved.

A	B	C	D	E	F
unit_num	is_in_uni	age_rang	mid_year	populatio	region_c
eric_code	on	e		n_count	ode
586 N		15-49	1970	3058720	
586 Y		15-49	1970	9307712	
586 N		15-49	1971	3142319	
586 Y		15-49	1971	9519679	
586 N		15-49	1972	3246009	
586 Y		15-49	1972	9744564	
586 N		15-49	1973	3366669	
586 Y		15-49	1973	9985469	
586 N		15-49	1974	3498567	
586 Y		15-49	1974	10245672	
586 N		15-49	1975	3638356	
586 Y		15-49	1975	10527828	
586 N		15-49	1976	3791232	
586 Y		15-49	1976	10836612	
586 N		15-49	1977	3951352	
586 Y		15-49	1977	11173762	
586 N		15-49	1978	4116750	
586 Y		15-49	1978	11540015	

2. Each line of data is the population of a group (either married or unmarried) and a year for women 15-49- copy and paste the national data for as many regions as you will enter. In our example, we are copy and pasting the entire dataset 3 times because we are adding in 3 regions worth of data.
3. Remove national data from these new lines in the column “population_count”

4. Add in your region_code. This is the name of your subnational region. Make sure it matches what you used in your Survey dataset.
5. Add in your regional population data- remember that the numbers will be different for married (Y) and unmarried (N) women – pay attention when adding in your data. You may find it easier to group all in unions and not in unions before adding subnational data.
 - a. You can get subnational population figures from your government estimates. If those data are not available, you can make your own estimates, but we would not advise using the results for the population count output in FPET (you can still use the proportions results).
6. Save your CSV with an informational name, for example “Pakistan Subnational Population.CSV”

Creating a Subnational CSV for Service Statistics data- Only necessary if you have subnational service statistics

Step 1: Create default country data from FPET.

1. Go to the “Prepare Data” Tab
2. Click on “Service Statistics”
3. For Database, choose “None”
4. Choose a country
5. Click “Add New Record”
 - a. Add annual service statistics data (Note: I am using fake data here)
 - b. Repeat for each year of data
6. Under “Data set name,” give your dataset a name, for example “Pakistan Service Statistics National”
7. Click Save

Survey data

Population data

Service statistics

Database:

Country:

None

Pakistan

LOAD EXISTING DATA

Region code	Year	EMU	Service statistic type
	2016	0.200	clients
	2017	0.210	clients
	2018	0.220	clients

ADD NEW RECORD

DELETE SELECTED ROW

CLEAR DATA

Data set name

Pakistan Service Statistics National

SAVE

Step 2: Download dataset from FPET.

5. Go to “Manage Data” tab
6. Click on the box next to desired database
7. Scroll to bottom and click “Download Selected Databases”
8. Open zip drive and save CSV in convenient location

Step 3: Editing CSV for Subnational Population Data

1. Open National Service Statistics CSV you saved

A	B	C	D	E	F	
ISO code	Country	Year	EMU	SS type	region_code	
586	Pakistan	2016	0.2	clients		
586	Pakistan	2017	0.21	clients		
586	Pakistan	2018	0.22	clients		

2. Each line of data is an EMU value for one year- copy the lines you want to use for subnational analysis and paste them below the national data.
3. Remove national data from these new lines (EMU). You want to keep data for each year that will not vary by region, such as the ISO code, start and end dates, and SS type.

A	B	C	D	E	F	G
ISO code	Country	Year	EMU	SS type	region_code	
586	Pakistan	2016	0.2	clients		
586	Pakistan	2017	0.21	clients		
586	Pakistan	2018	0.22	clients		
586	Pakistan	2016		clients		
586	Pakistan	2017		clients		
586	Pakistan	2018		clients		

4. For each subnational region you will include, you want to copy and paste these data-free lines. In this example, I will add data for 3 regions
5. Add in your region_code. This is the name of your subnational region.
6. Add in your EMU data. (Note: I am using fake data here)

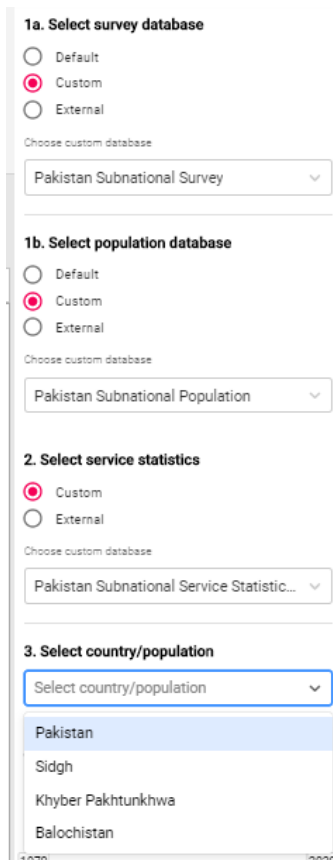
A	B	C	D	E	F
ISO code	Country	Year	EMU	SS type	region_code
586	Pakistan	2016	0.2	clients	
586	Pakistan	2017	0.21	clients	
586	Pakistan	2018	0.22	clients	
586	Pakistan	2016	0.41	clients	Sindh
586	Pakistan	2017	0.39	clients	Sindh
586	Pakistan	2018	0.37	clients	Sindh
586	Pakistan	2016	0.12	clients	Khyber Pakhtunkhwa
586	Pakistan	2017	0.14	clients	Khyber Pakhtunkhwa
586	Pakistan	2018	0.16	clients	Khyber Pakhtunkhwa
586	Pakistan	2016	0.1	clients	Balochistan
586	Pakistan	2017	0.1	clients	Balochistan
586	Pakistan	2018	0.1	clients	Balochistan

7. Save your CSV with an informational name, for example “Pakistan Subnational Service Statistics.CSV”

Loading Region Level Data into FPET

1. Go to [FPET.track20.org](https://fpet.track20.org)
2. Click on “Start Run”
3. Under “Select survey dataset” choose “External”
4. Click “Choose Database”
 - a. Select your subnational database for Surveys
 - b. Click “Upload database”
 - c. You can tell the database is uploaded when the pink dot switches to “Custom” and you see your database in the Custom dropdown menu
5. Under “Select population dataset” choose “External”
6. Click “Choose Database”
 - a. Select your subnational database for Population
 - b. Click “Upload database”
 - c. You can tell the database is uploaded when the pink dot switches to “Custom” and you see your database in the Custom dropdown menu
7. If using service statistics: Under “Select service statistics” choose “External”
8. Click “Choose Database”
 - a. Select your subnational database for Service Statistics
 - b. Click “Upload database”
 - c. You can tell the database is uploaded when the pink dot switches to “Custom” and you see your database in the Custom dropdown menu
9. Check to make sure your files loaded correctly.
 - a. Click on “Select country/population” drop arrow
 - b. You should see the country name as well as all the regions you included

- c. If you do not see a region you included, it is probably because there is a different spelling (or spacing or accent) between the files



The screenshot shows a configuration window with the following sections:

- 1a. Select survey database**
 - ☐ Default
 - ☒ Custom
 - ☐ External

Choose custom database

Pakistan Subnational Survey
- 1b. Select population database**
 - ☐ Default
 - ☒ Custom
 - ☐ External

Choose custom database

Pakistan Subnational Population
- 2. Select service statistics**
 - ☒ Custom
 - ☐ External

Choose custom database

Pakistan Subnational Service Statistic...
- 3. Select country/population**

Select country/population

 - Pakistan
 - Sidgh
 - Khyber Pakhtunkhwa
 - Balochistan

10. Choose a region
11. Input a run name
12. Review data to make sure it loaded correctly
13. Click “Start run”
14. You will be taken to “Run History” and see a white timer. When the run is done it will turn green. If a problem occurs, it will turn red. This process will take a few minutes.
 - a. You can have multiple runs processing simultaneously.
 - b. To run another region while waiting for results, click “Start Run”
 - c. In “Select survey database” choose “Custom” and choose your subnational database
 - d. In “Select population database” choose “Custom” and choose your subnational database
 - e. In “Select service statistics” choose “Custom” and choose your subnational database
 - f. Choose a different region, review data, and start your run
16. Once the timer has turned green on a run, you can go to the Results and Charts tabs to see your results.
17. You can return to Run History screen to check progress on and access additional runs.



Your subnational FPET run is complete.