

## 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 is 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.

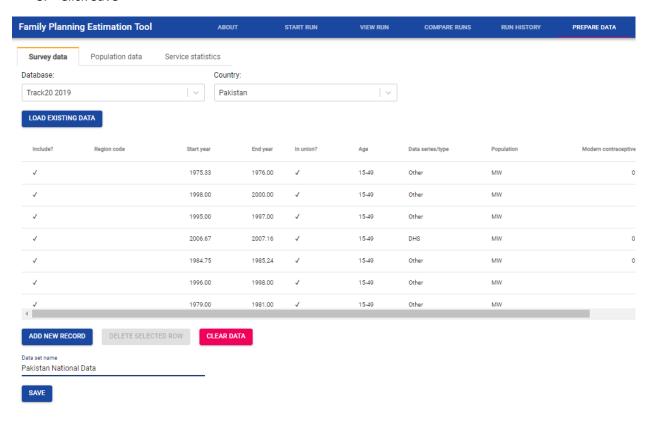
## Creating a Subnational CSV for Survey data

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"



- 6. Review the country level data, add or delete surveys as needed
- 7. Under "Data set name," give your dataset a name, for example "Pakistan National Data"
- 8. 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

## Step 3: Editing CSV for Subnational Data

1. Open National CSV you saved

A	1	В	C	D	E	F	G	H	1	J	K	L	M	N	0	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
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	586	1975.329	1975.997		15-49	Other	MW	0.039	0.015	0.054	0.015		N		N		N		None	None	N		N								Y_603	
	586	1998			15-49	Other	MW			0.17			N		N		N		None	None	N		N								Y_617	
	586	1995			15-49	Other	MW			0.13			N		N		N		None	None	N		N								Y_618	
			2007.159		15-49	DHS	MW			0.296031		0.251574			N		N		None	None	N		N	0.006	0.0041	0.0055	0.0371	0.0599	0.0296		Y_637	
			1985.244		15-49	Other	MW	0.076258	0.014742		0.014742		N		N		Y		None	None	N		N								Y_671	
	586	1996			15-49	Other	MW			0.15			N		N		N		None	None	N		N								Y_678	
	586	1979			15-49	Other	MW			0.033			N		N		N		None	None	N		N								Y_751	
		1990.915			15-49	DHS	MW		0.028275			0.304718			N		N		None	None	N		N	0.0053	0.0032	0.0086	0.0656	0.1187	0.044	1827		
	586	1996	1998		15-49	National		0.169				0.375			N		N		None	None	N		N							1841		
		2000.751			15-49	National		0.2021	0.0739			0.33			N		N		None	None	N		N							1842		
	586	1991			15-49		MW			0.069			N		N		N		None	None	N		N								Y_1007	
			1993.493		15-49	National		0.176					N		N		N		None	None	N		N								Y_1123	
			1995.227		15-49	National		0.126					N		N		N		None	None	N		N								Y_1134	
	586	2003			15-49	Other	MW	0.252	0.068		0.068		N		N		N		None	None	N		N								Y_1268	
	586	1968			15-49	Other	MW			0.055			N		N		N		None	None	N		N								Y_1309	
	586	2005			15-49	Other	MW	0.184					N		N		N		None	None	N		N								Y_1320	
			2008.496		15-49	Other	MW	0.193			0.077		N		N		N		None	None	N		N								Y_1533	
			2013.326		15-49	DHS	MW			0.354093		0.200847			N		N		None	None	N		N	0.0069	0.0047	0.006	0.0382	0.059	0.0368		Y_1562	
			2018.244		15-49	DHS	MW	0.25	0.092			0.173			N		N		None	None	N		N								Y_1734	
	586	2013.496	2014.493	Y	15-49	National	MW			0.32			N		Υ	Excludin	N		None	None	N		N							7423	Y_1742	

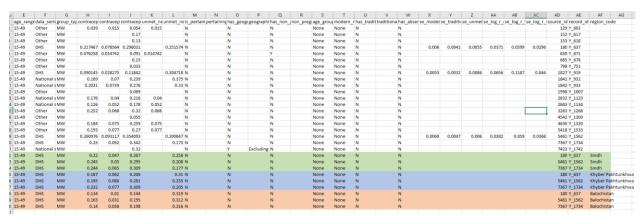


- Each line of data is a survey- copy the survey lines you want to use for subnational analysis and paste them below the national data. (Select only surveys that would have subnational data available)
- 3. Remove national data from these new lines (data to be removed includes the following indicators and standard error columns: contraceptive\_use\_modern, contraceptive\_use\_traditional, contraceptive\_use\_all, unmet\_need\_for\_modern\_methods, unmet\_need\_for\_any\_method se\_modern, se\_traditional, se\_unmet\_need, se\_log\_r\_modern\_no\_use, se\_log\_r\_traditional\_no\_use, se\_log\_r\_unmet\_no\_need). You want to keep data for each survey that will not vary by region, such as the unit\_numeric\_code, start and end dates, and biases.

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105 2007	Υ	15-49	Other	MW	0.184	0.075	0.259	0.075	N			N		N		None	None	N		N							4630 Y	_1320
96 2008.496	Υ	15-49	Other	MW			0.27	0.077	N			N		N		None	None	N		N							5418 Y	_1533
				MW	0.260976							N				None	None	N		N	0.0069	0.0047	0.006	0.0382	0.059	0.0368		
				MW	0.25	0.092			0.173 N			N				None	None	N		N								
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									N			N		N		None	None	N		N								
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96 2018.244	Υ	15-49	DHS	MW					N			N		N		None	None	N		N							7367 Y	_1734
	35 1997 56 2007.159 56 2007.159 56 1998.49 57 1991.411 58 1992.411 58 1992.411 59 1993.493 50 1995.227 50 2007 50 2007.59 50 2008.496 50 2018.244 50 2018.244 50 2018.245 50 20 20 20 20 20 20 20 20 20 20 20 20 20	35 1997 Y 51 1985 2244 Y 51 1985 2244 Y 79 1981 Y 96 1998 Y 97 1981 Y 56 1999 411 Y 66 1998 Y 51 1999 1997 Y 71 1999 227 Y 73 1920 427 Y 71 1995 227 Y 73 1920 427 Y 74 1995 227 Y 75 1920 427 Y 75 1920 427 Y 76 19	35 1997 Y 15-49 51 1995 244 Y 15-49 51 1995 244 Y 15-49 51 1995 244 Y 15-49 79 1991 17 15-49 51 1995 1998 Y 15-49 51 1995 1997 Y 15-49 51 1995 227 Y 15-49 51 15-49	35 1997 V 15-49 Other 55 1995 V 15-49 DHS 51 1995 V 15-49 DHS 51 1995 V 15-49 Other 69 1998 V 15-49 Other 69 1998 V 15-49 Other 51 1995 V 15-49 Other 51 1995 V 15-49 Other 61 15-49 Other	155   1997   Y   15+9   Other MW   15+9   Othe	15-99   15-4	15	15-99   15-4	15-99   15-9	1549   1549	15	15-98   15-99   15-4	15-99   15-94   15-94   15-95   15-94   15-95   15-9	15   1997 Y   15-49   Other   MW   0.21746   0.07856   0.29631   N   N   N	15-95   15-97   15-96   15-9	15   1997   15-49   0ther   MW   0.21746   0.07856   0.20851   0.25357 N   N   N   N   N   N   N   N   N   N	15	15-95   15-97   15-49   Other   MW   0.217467   0.078540   0.295510   0.25557   N   N   N   N   N   N   N   N   N	15-95   15-97   15-49   0.0   MW   0.217467   0.078256   0.259321   0.251574   N   N   N   None   None   N	15-98   15-94   15-9	15-99   15-4	15-95   15-95   15-96   15-9	15   1997   15-49	15-95   15-9	15   1997   15-49	15-95   15-9	15-99   15-4	15-97   15-49   15-4

- 4. For each subnational region you will include, you want to copy and paste these data-free survey lines. In this example, I will copy and paste the selected lines 3 times so I can fill in data for 3 regions.
- 5. Add in your region\_code. This is the name of your subnational region.
- 6. Add in your subnational survey data- usually CPR, mCPR, tCPR, and unmet need for any method. You will leave the standard errors blank.
  - a. You can find these data using StatCompiler select the country and indicators, then disaggregate by region. Remember that the numbers in StatCompiler are presented as percentages while the data pulled from the Track20 data base in FPET are presented as proportions. For example, you may have to change a value of 47.5 (%) to .475 (proportion). Make sure that regional boundaries in StatCompiler have not changed over time. Sometimes region boundaries shift between surveys. For non-DHS surveys, subnational family planning measures are often reported in report tables. Make sure that regions do not vary between surveys.





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

## Creating a Subnational CSV for Population data

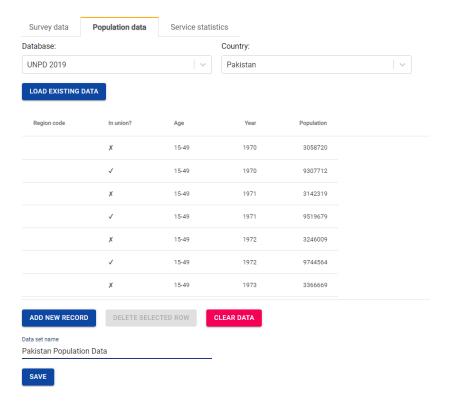
Step 1: Create default country data from FPET.

- 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





Step 3: Editing CSV for Subnational Population Data

1. Open National Population CSV that you saved.

Α	В	С	D	Е	F
unit_num	is_in_uni	age_rang		populatio	region_c
eric_code	on	e	mid_year	n_count	ode
586	N	15-49	1970	3058720	
586	Υ	15-49	1970	9307712	
586	N	15-49	1971	3142319	
586	Υ	15-49	1971	9519679	
586	N	15-49	1972	3246009	
586	Υ	15-49	1972	9744564	
586	N	15-49	1973	3366669	
586	Υ	15-49	1973	9985469	
586	N	15-49	1974	3498567	
586	Υ	15-49	1974	10245672	
586	N	15-49	1975	3638356	
586	Υ	15-49	1975	10527828	
586	N	15-49	1976	3791232	
586	Υ	15-49	1976	10836612	
586	N	15-49	1977	3951352	
586	Υ	15-49	1977	11173762	
586	N	15-49	1978	4116750	
586	Υ	15-49	1978	11540015	
m .					

- 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"

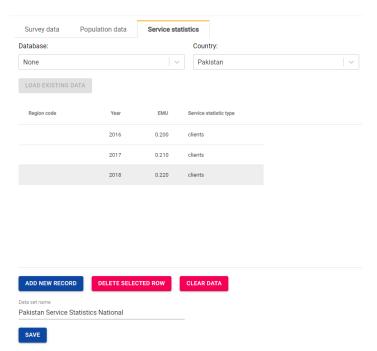


- 4. Add in your region\_code. This is the name of your subnational region. Make sure it matches what you used in your Survey dataset.
- 5. Add in your regional population data- remember that the numbers will be different for married (Y) and unmarried (N) women pay attention when adding in your data. 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





#### 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

1	А	В	С	D	Е	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.

А	В	С	D	Е	F	G
ISO code	Country	Year	EMU	SS type	region_co	de
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)



А	В	С	D	Е	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

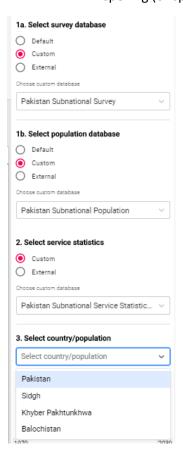
7. Save your CSV with an informational name, for example "Pakistan Subnational Service Statistics.CSV"

## Loading Region Level Data into FPET

- 1. Go to FPET.track20.org
- 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



- 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.