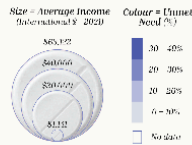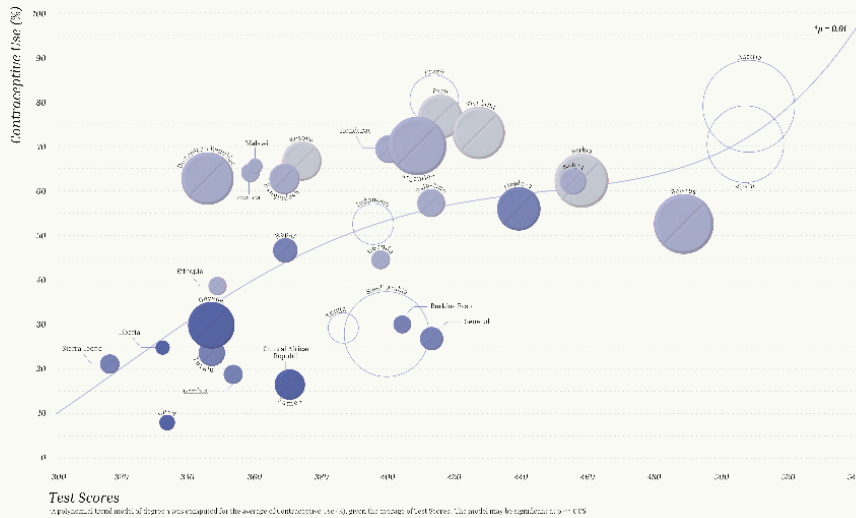# Contraceptives vs Class

Access to effective, affordable contraceptives is fundamental to an individual's bodily autonomy. There are stark differences in access to contraception depending on socioeconomic status, with many people in low income countries having unmet needs. Lack of access to effective contraception naturally leads to higher rates of unintended pregnancies, and, as a consequence, more unsafe abortions and maternal deaths. These visualizations explore the correlation between education, income, and contraceptive use.

Size = Average Income (International $, 2020)

Colour = Unmet Need (%)

Contraceptive Use, Education & Income

A polynomial trend model of degree was computed for the average of contraceptive use (%) given the average of test scores. The model may be significant at p = 0.01

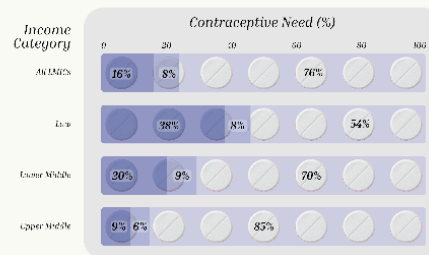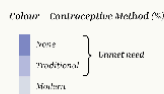Contraceptive Use (%) / Test Scores

p = 0.01

Income & Unmet Need

The World Bank has grouped countries into income categories based on Gross National Income (GNI) per capita. Those with a GNI per capita of <$14,005 are termed low- and middle-income countries' (LMICs). In 2019, approximately 218 million people in LMICs had an unmet need for contraception. Low income countries suffer from the greatest deficit in contraception, as seen in this visual.

Unmet need is defined as those who want to avoid pregnancy but are not using any modern contraceptive methods.
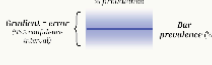
Modern methods involve access to healthcare services and individual hormonal and barrier methods (e.g. pill, condom), sterilization, and emergency contraceptives.

Traditional methods include withdrawal and ovulation tracking. These methods are less effective than modern methods.

Colour — Contraceptive Method (%): None / Traditional / Modern

Contraceptive Need (%)

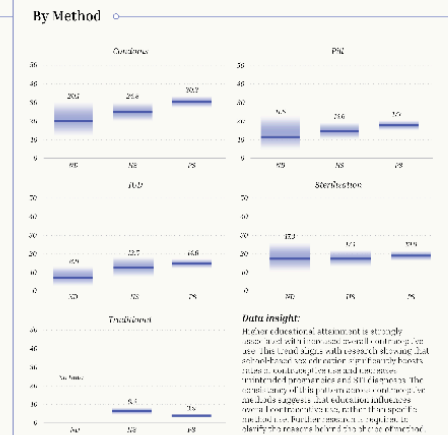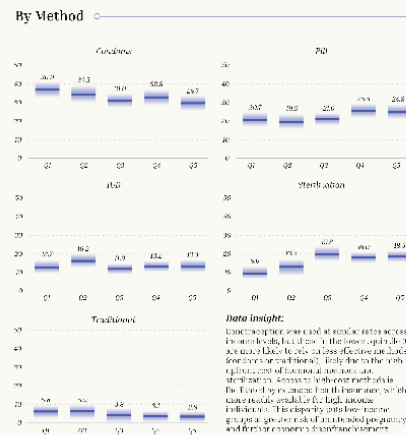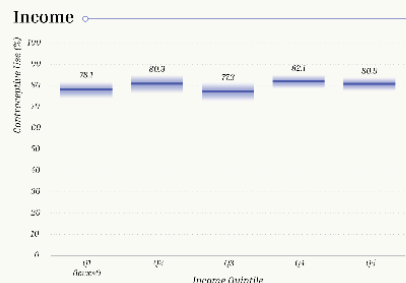| Income Category	0	20	40	60	80	100
All LMICs	16%	8%		76%		
Low	38%		8%		54%	
Lower Middle	20%	9%		70%		
Upper Middle	9%	6%		85%		

Contraceptives in Canada

Contraceptive use by method was documented in a 2019 survey of Canadians aged 15 to 49. While the survey did not include participants' reasons for choosing specific methods, certain patterns may be discerned. In fact, even in nations such as Canada, a high income country, many of its citizens still face economic barriers to accessing contraception.

Income

Contraceptive Use (%) / Income Quintile

78.2 80.3 77.3 82.1 80.5

Education

Contraceptive Use (%) / Educational Attainment

64.6 72.1 79.7

No Degree / High School / Post Secondary

By Method (Income)

Condoms / Pill / IUD / Sterilization / Traditional

By Method (Education)

Condoms / Pill / IUD / Sterilization / Traditional

Data Insight:

Contraception was used at similar rates across income levels, but those in the lowest quintile were more likely to rely on less effective methods (condoms or traditional). Only the wealthier groups' use of hormonal contraceptives and sterilization increased with income level. Kept in the list of types of contraception in Canada, the more reliable methods are available for high income individuals. This disparity puts low-income groups at greater risk of unintended pregnancy and further compounds disadvantagement.

Data insight:

Higher educational attainment is strongly associated with increased overall contraceptive use. This trend aligns with research showing that higher educational attainment improves health literacy, access to services and resources, increased contraceptive use and self discrepancy.

Table of contents
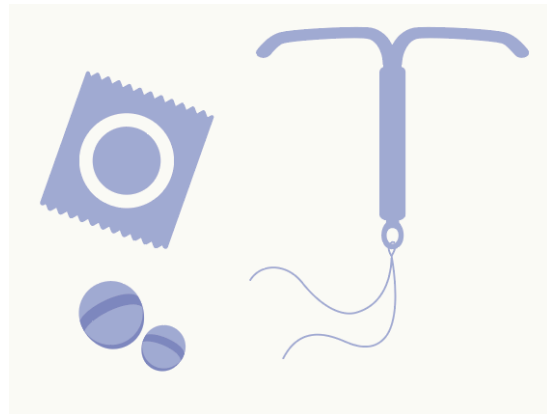
1. Project Overview

Goals:
- Tell the story of contraceptive use as dictated by income and education, on a global scale and in Canada
- Explore the correlation between socioeconomic class and unmet need for contraceptives.
- Clarify trends in specific methods of contraceptive use

**Client**: Prof. Shehryar Saharan, University of Toronto

2. Research

Process
- Google search for "contraceptives dataset"; explored what came up
- Focused on information published by government or recognized organizations
- Found the following sources with freely available datasets:
  - 1) United Nations World Contraceptive Use (2019): https://www.un.org/development/desa/pd/data/world-contraceptive-use
  - 2) Sexual and Reproductive Health in low and middle income countries in 2019 (methodology report): https://www.guttmacher.org/report/adding-it-up-investing-in-sexual-reproductive-health-2019-methodology
    - Specifically table 5, which includes data on household income
  - 3) Statistics Canada report on contraception use among sexually active women wanting to avoid pregnancy: https://www150.statcan.gc.ca/n1/pub/45-20-0002/452000022025001-eng.htm
- Other sources I explored for examples of visualizations about this topic:
  - Bar chart of contraceptive use global prevalence (World Bank): https://genderdata.worldbank.org/en/indicator/sp-dyn-zs?view=bar
  - Interactive map of global contraceptive use over time (Our World in Data): https://ourworldindata.org/grapher/contraceptive-prevalence-any-methods-of-women-ages-15-49?time=latest
- All of these datasets track people assigned female at birth who are sexually active and either do not want to conceive or want to limit or space births
- One parameter that was not discussed any of these datasets or their associated reports was **why** some methods of modern birth control are chosen over others
  - Prevalence of method used by different groups (i.e. based on age, marital status, etc) was well documented in the above datasets
- For **wealth** and **education** data, I found separate datasets from the UN and world bank but had issues compiling them (incompatible years, countries, formats)
- Solved this issue by using a pre-processed dataset from Our World in Data, which compared harmonized test scores to GDP per capita:
  - 4) https://ourworldindata.org/grapher/learning-outcomes-vs-gdp- per-capita
  - Harmonized test scores are a standardized indicator of the standard of education in any particular country
  - GDP - "measure of the total value added from the production of goods and services in a country or region each year"
  - GDP per capita is GDP divided by population.
- This dataset had already been adapted into a visual by Our World in Data:

Average learning outcomes vs. GDP per capita, 2020

Average learning outcomes correspond to harmonized scores across standardized, psychometrically-robust international and regional student achievement tests. GDP data is adjusted for inflation and for differences in living costs between countries.
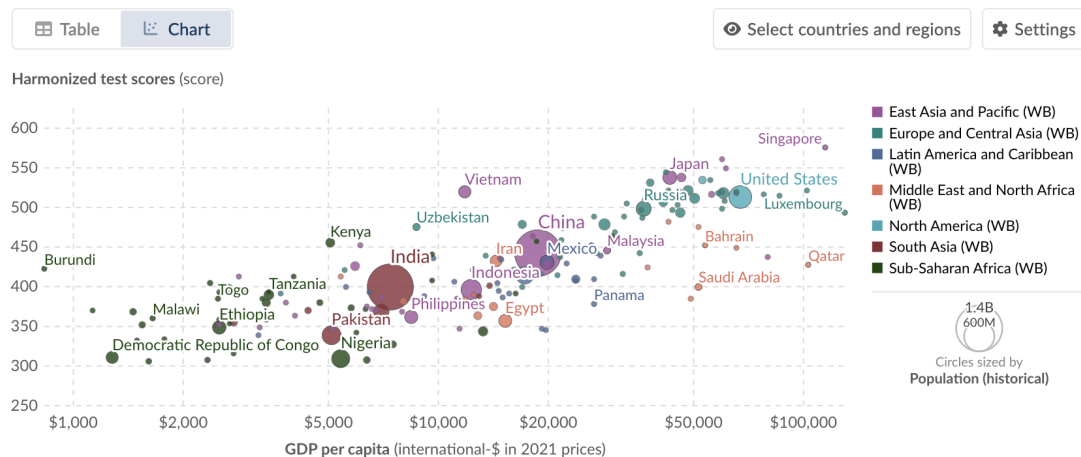
- Used this visual as inspiration for my 1st graph
- Since the data from the Statistics Canada survey was from 2019, I chose data from 2019 for the other datasets (multiple years were available) to keep everything consistent

Supplemental Research

- [Campbell et al., 2025](#)
    - Employment status and level of insurance coverage is linked use of hormonal contraceptives (IUD and pill)
    - If you are employed and have extended health coverage, you will be more likely to use hormonal contraceptives at some point in your life (not necessarily right now)
    - "Household income and lifetime HC use also demonstrated a significant association, where 77.8% of those with a household income over $100k had ever used HC, compared to 65.1% of those with a household income between $15-20k"
- [Fetner et al., 2020](#)
    - Condom use is highest among young adults and those with higher levels of education (Seemingly contradictory?)
    - 47.2% of canadians 18-24 years old used a condom during the last sexual encounter, compared to 35% in 44-50
    - Pregnancy prevention is most commonly cited reason for condom use, rather than STI risk
    - Use of condoms drops in monogamous relationships and HC use rises
    - School-based sexual education increases rates of condom use and STI testing, and decreases rates of positive tests (because they are being safe)
- [SIECCAN, 2020](#)
    - "Sexual health education increased knowledge about sexual health (including contraception) and also increased contraceptive/condom use"
- [Metcalfe et al., 2016](#)

- - "Low educational attainment was associated with not using any form of contraception among women with unintended pregnancies."
- Mansour et al., 2010
  - Effectiveness of contraceptive methods: female sterilization = IUDs and implants > copper IUDs > pill and other HC methods > barrier and natural methods
- World Bank, 2025b
  - World Bank separates low, low-middle, middle, and high income countries by the following GNI per capita (in 2023):
    - Low: <$1,145
    - Low-middle: $1,146–4,515
    - Upper-Middle: $4,516–14,005
    - High: >$14,005

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3. Variables & Limitations

The following list covers the variables used from each dataset, though more were available:

1) **UN World contraceptive use**
   a) Prevalence (%) of contraceptive use by country
   b) Unmet need

Limitations of this dataset:
- Years are not consistent, as surveys are applied at different times
- Not all countries are included
- Many countries have partial data, especially with regards to unmet needs

2) **Sexual and Reproductive Health in Low and Middle Income Countries (LMIC)**
   a) Number and percentage of needs met or unmet (i.e. using traditional or no method)

Limitations:
- Many data points are estimated
- The data is "corrected" to 2019 with minimal clarification as to what the methodology behind correction is
- While traditional methods are not as effective as modern methods of contraceptives, they may meet the needs of some individuals so "unmet need" may be an inappropriate label and may not actually reflect lack of access to modern contraceptives

3) **Statistics Canada report on contraception use**
    a) Prevalence (%) of overall contraceptive use and prevalence of **specific methods***
        i) By household income quintile
        ii) By educational attainment, ages 25-49 (no degree, high school, post-secondary)

*Specific methods outlined:
- Modern: Male condom, Female & Male sterilization, IUD, Birth Control Pill,
- Traditional: Rhythm, Withdrawal

Limitations:
- Did not track met vs unmet need
- Excludes **all those living on reserves and in indigenous settlements**, full-time members of the Canadian Forces; youth aged 12 to 17 living in foster homes; the institutionalized population; persons living in the Quebec health regions of Nunavik and Terres-Cries-de-la-Baie-James, and persons living in the territories
    - These represent less than 3% of the target population → still not a great look!
- Educational attainment does not include age 15-25 (which makes sense, not everyone in this group will have a degree), but this does skew the data a little because there may be a different representation of certain methods
    - This survey (among other research) has found that there is a correlation between younger age and higher condom use
    - SO if age bracket of 15-25 had been included, there may have been a higher reported % of condom use in the education graphs

4) **Learning Outcomes vs GDP**
    a) Harmonized test scores across almost every country
    b) GDP per capita in 2021 international dollars (adjusted for inflation + cost of living)

Limitations:
- Data not available for 2019 (only 2018 and 2020), so using data from 2020 instead
- Test scores:
    - Includes information on all genders, not just cis women; therefore may be misrepresenting countries with gender disparity in school enrollment
    - Measures state of education and learning at one point in time, so it misses the older women who are still of reproductive age but may not have had an education
- GDP per capita
    - Does not reflect workforce disparity in countries where more women are occupied with domestic labour

4. Ideation & Inspiration

Treatment ideas
- Initial attempts at visualizations without data analysis step
- Goals:
    - Create a visual that is within reach of a lay audience's understanding but could also occupy a space in an academic setting, as a general introduction to the topic
    - Clean, simple visuals with some thematic decorative elements (e.g. pills)
    - Could exist as a print poster or on the web

Initial attempts at ideation:

Fig 1 - Global prevalence of contraceptive use by country, wealth, and education
- Y-axis: wealth as given in GNI per capita (2015 $US)
    - GNI = gross national income
- X-axis: education level as given by % of population with highschool education
- Area: % prevalence of contraceptive use in that country
    - Pie chart or dot within dot within area for traditional vs modern methods
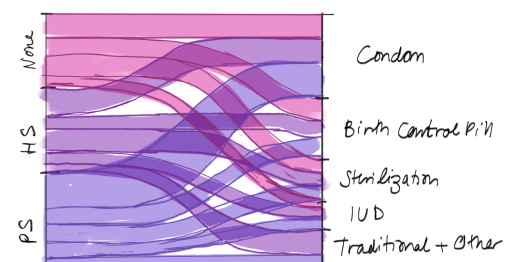- Dashed line: low, low-middle, and middle income country GNI per capita cutoff lines
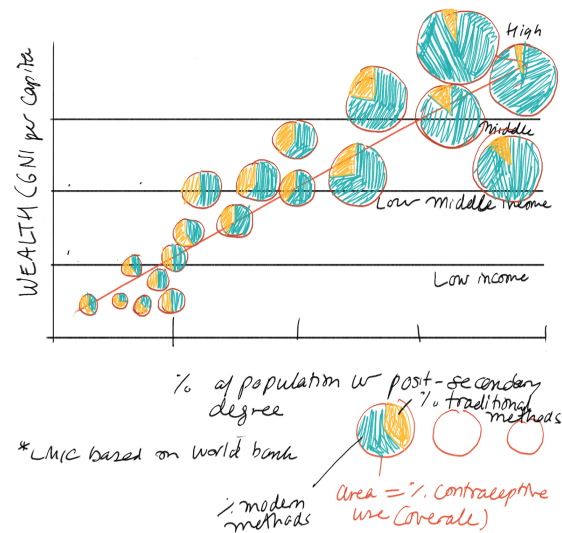
Fig 2 - Proportion of met and unmet need in LMIC
- Arms of IUD represent met need vs unmet need
- Bars beneath show proportion (%) of met vs unmet need
- Just a quick snapshot of the direct relationship between wealth and access to contraceptives → eye catching
- Suggestions from Ella to change IUD into a blister pack of contraceptive pills with a stacked bar graph
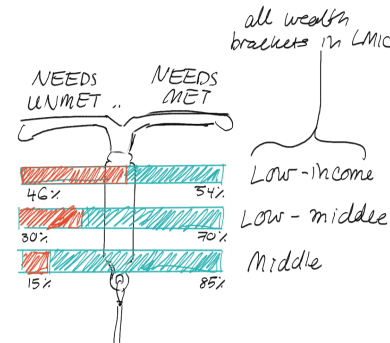
Fig 3 - Prevalence of methods in different demographics (directly and indirectly associated with income) in Canada
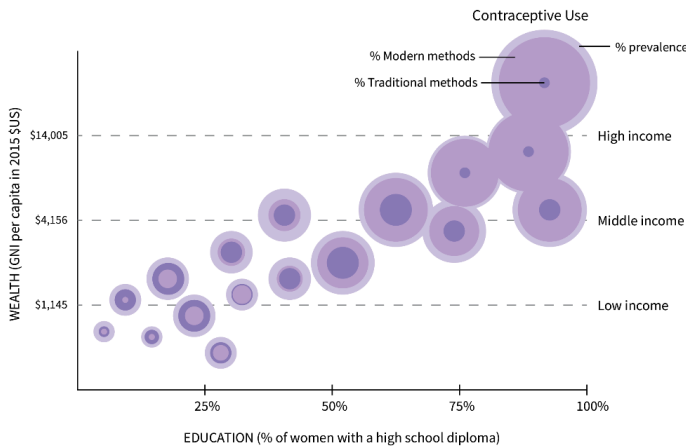- Idea: small multiples, 4 alluvial diagrams, one for each category (income quintile, education level, indigenous identity, immigrant status)
    - Left axis - overall prevalence (%) of contraceptive use in each subcategory
    - Right axis - prevalence (%) of each method
- **Challenge**: some methods of birth control are used in conjunction with one another, especially pill + condom → how do I show this?
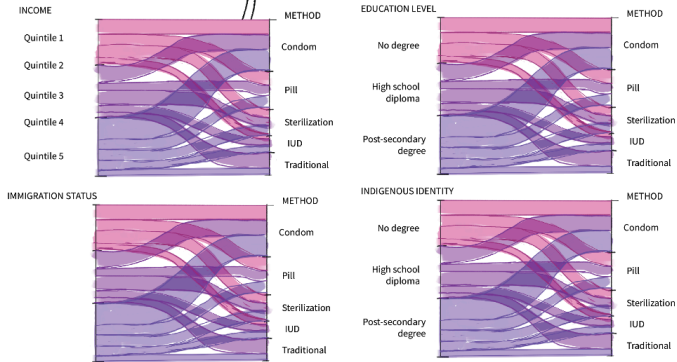
First Draft:

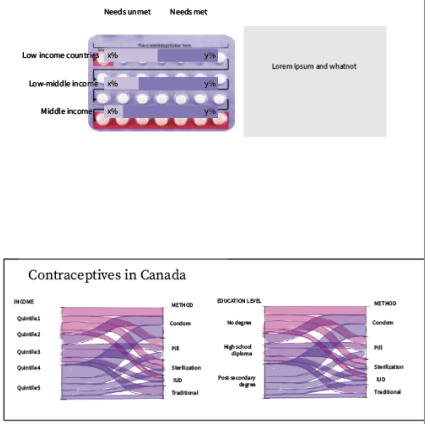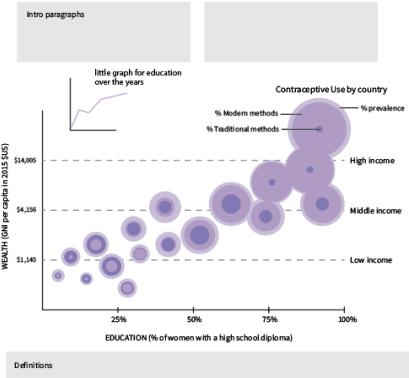# Contraceptives vs Class

Intro paragraphs

Lorem ipsum and whatnot

Place weekdaysticker here

Start

Lo

Contraceptive Use

% Modern methods — % prevalence

% Traditional methods

WEALTH (GNI per capita in 2015 $US)

$14,005 — High income

$4,156 — Middle income

$1,145 — Low income

25%   50%   75%   100%

EDUCATION (% of women with a high school diploma)

Definitions

Contraceptives in Canada

INCOME	METHOD
Quintile 1	Condom
Quintile 2	
Quintile 3	Pill
Quintile 4	Sterilization
Quintile 5	IUD
	Traditional

EDUCATION LEVEL	METHOD
No degree	Condom
High school diploma	Pill
Post-secondary degree	Sterilization
	IUD
	Traditional

IMMIGRATION STATUS	METHOD
	Condom
	Pill
	Sterilization
	IUD
	Traditional

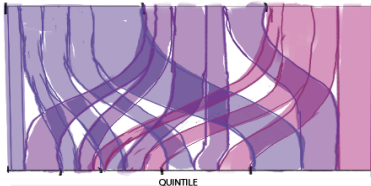| INDIGENOUS IDENTITY	METHOD
No degree	Condom
High school diploma	Pill
Post-secondary degree	Sterilization
	IUD
	Traditional

Alternative layout options:

Contraceptives vs Class

Intro paragraphs

Needs unmet   Needs met

Low income countries   x%   y%

Low-middle income   x%   y%

Middle income   x%   y%

Lorem ipsum and whatnot

little graph for education over the years

Contraceptive Use by country

% Modern methods — % prevalence

% Traditional methods

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Low income countries   x%   y%

Low-middle income   x%   y%

Middle income   x%   y%

Lorem ipsum and whatnot

Contraceptives vs Class

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$1,145 — Low income

25%   50%   75%   100%

EDUCATION (% of women with a high school diploma)

education

QUINTILE

Needs unmet   Needs met

Low income countries   x%   y%

Low-middle income   x%   y%

Lorem ipsum and whatnot
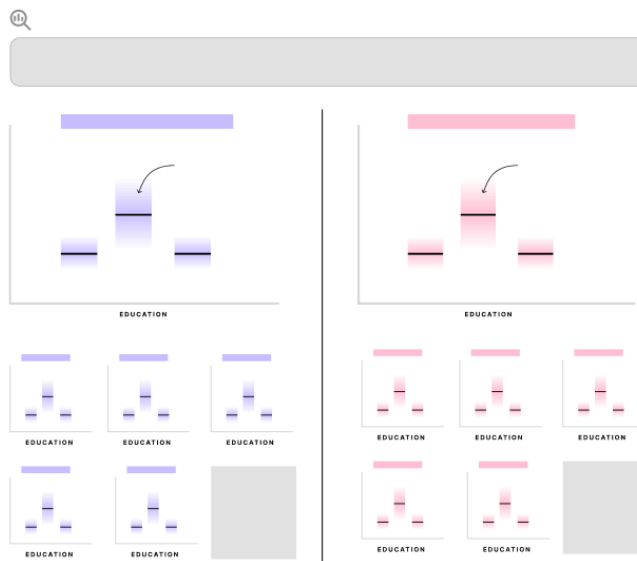
- Challenges in the comprehensive included:
  - Sankey diagram simply did not make sense for the canada contraceptive use data
    - Did not add up to 100% in each category and the education information was not linked to income information
  - Data from the statistics canada set came with a 95% confidence interval for each reported percentage → how to incorporate this information?
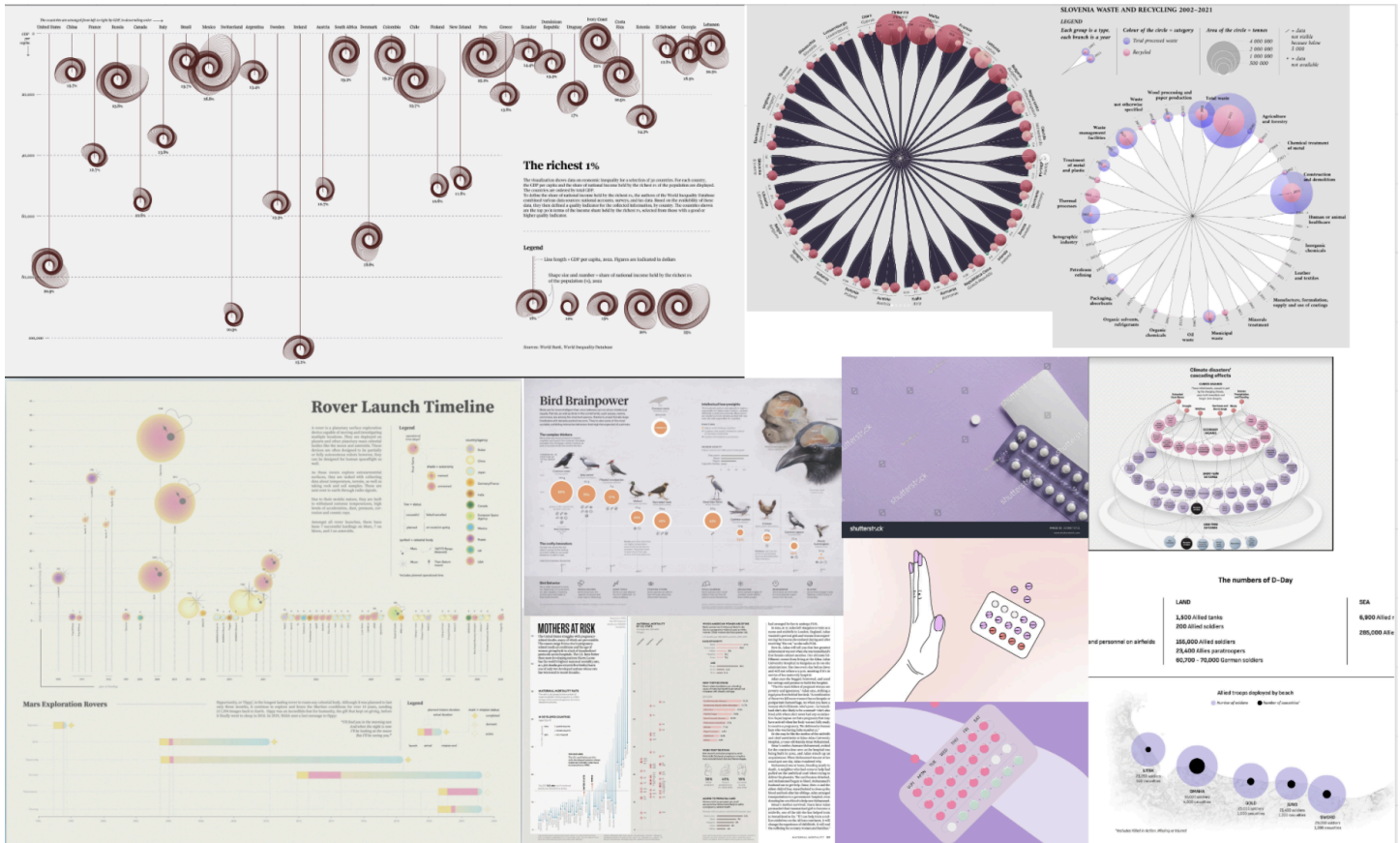- Brainstorming solutions:
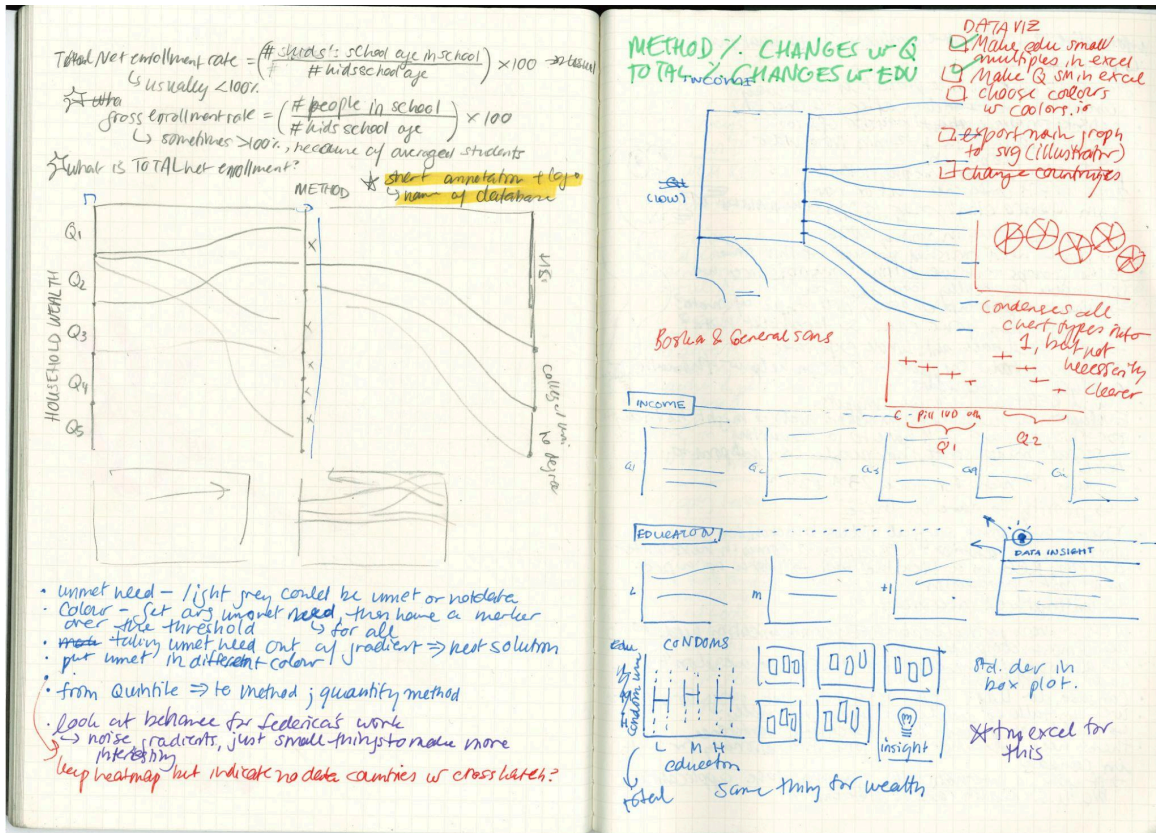
- Proposed solution from client:
  - **Small multiples, with error bar gradient**

Inspiration

Link to Miro board: https://miro.com/app/board/uXjVIPoFGQw=/

- Moodboard:

- Font & Palette Exploration:

- Brainstorming decorative elements (that did not end up making it into the final):

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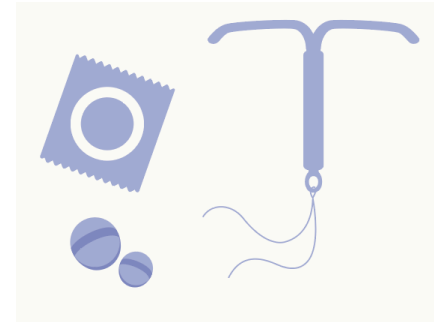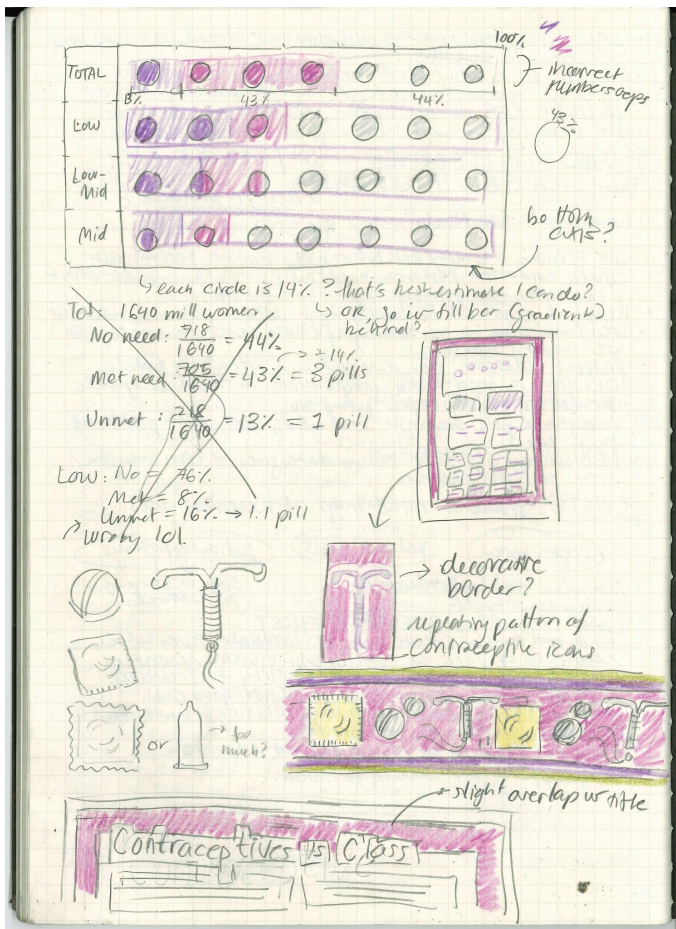
5. Data Preparation & Graphing

Updated Plan for Final
1) Scatter plot: Contraceptives, Education, and wealth; with polynomial trendline
   a) Contraceptive use as % prevalence on y-axis
   b) Test scores on x-axis
   c) Average income as size of circle
   d) Unmet need as fill opacity
2) Met need vs unmet need in low- and middle-income countries
   a) Stacked bar graph, in the shape of a package of birth control pills
   b) Width of bars represents % of women using none, traditional or modern method
3) Contraceptive use in Canada by educational attainment and income quintile
   a) Bar graph of overall contraceptive use for each category
   b) Small multiples by method within each category

Fig 1

1) **Tableau Prep**: cleaned the Education vs GDP data and the UN contraceptive use dataset and combined them:
    a) (Cleaned data available in appendix)

2) **Tableau Desktop**: initial attempt at a graph, where test scores are plotted against avg. GDP:
    a) Challenge: size of circles as % contraceptive use is not easily differentiated

3) Solution: swap GDP and contraceptive use

4) Increase size of circles and encode unmet need with fill opacity
    a) Challenge: countries with **unreported** unmet need have the same fill colour as those with 0-10% unmet need; how to differentiate?

5) **Illustrator**: solution: empty circles for no data

6) Experimenting with alternative graph options; trying more visually interesting elements like gradient fill or flat fill with pill graphic overlay

7) Final graph
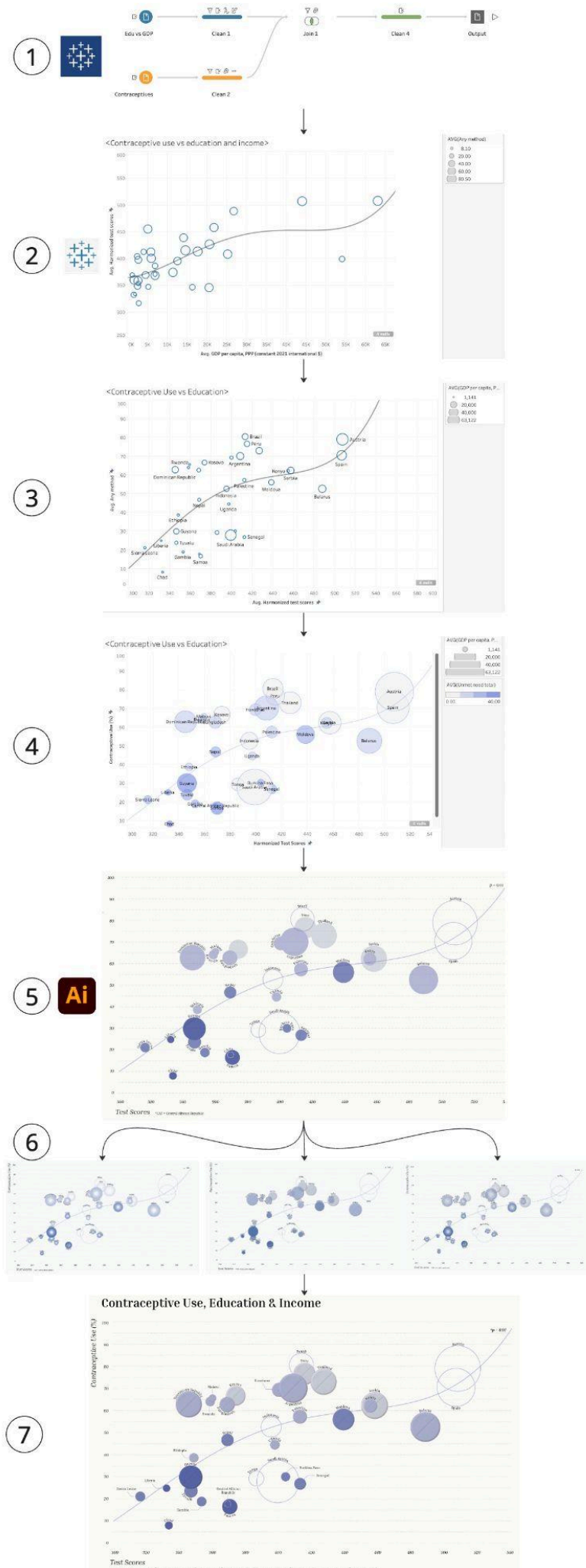
Fig 2

1) Used pre-existing graphic from report on LMIC dataset
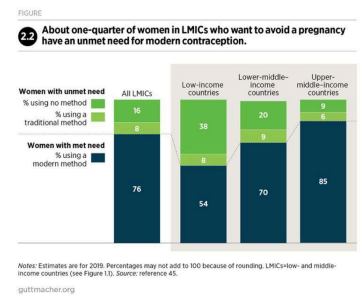
2) **Excel**: created data table from visual

	No Method	Traditional Method	Modern Method
All LMICs	0.16	0.08	0.76
Low Income	0.38	0.08	0.54
Lower-Middle Income	0.2	0.09	0.7
Upper-Middle Income	0.09	0.06	0.85

3) Created a horizontal stacked bar graph

4) **Illustrator**: formatted to appear more like a blister pack
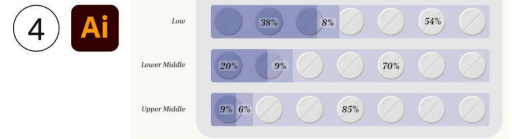
Fig 3

- The Statistics Canada dataset was not in downloadable tables, so I took screenshots and ran them through the excel data extraction tool
- Converted 95% confidence interval to a ± error value
  - Cleaned data available in appendix
- Created bar charts with custom error bars for overall prevalence and by method, for income and education categories
- Manually edited in illustrator:

- Progression of final:

6. Appendix

Fig 1 data

- NOTE: due to lack of data from 2019 for test scores and GDP, contraceptive use data from 2019 and 2020 was averaged and countries with no data were excluded when graphing

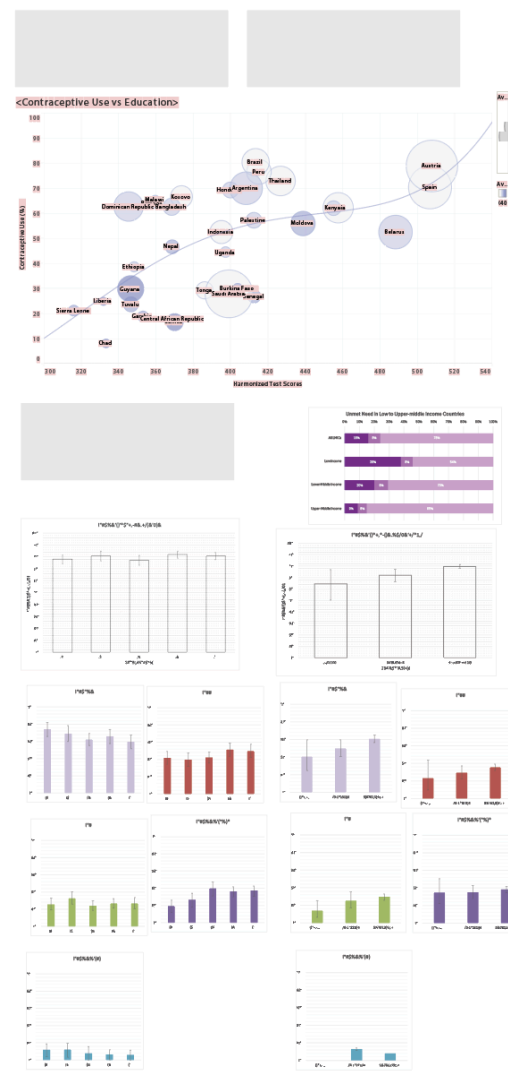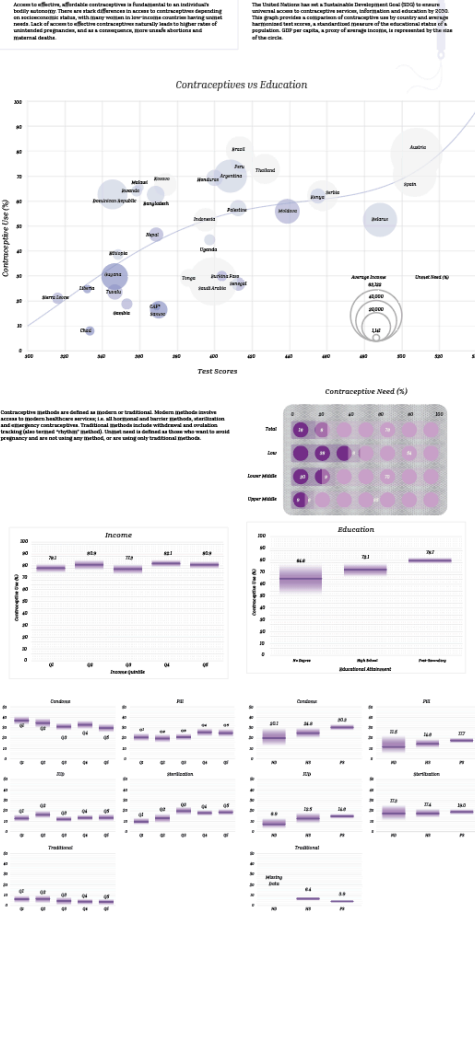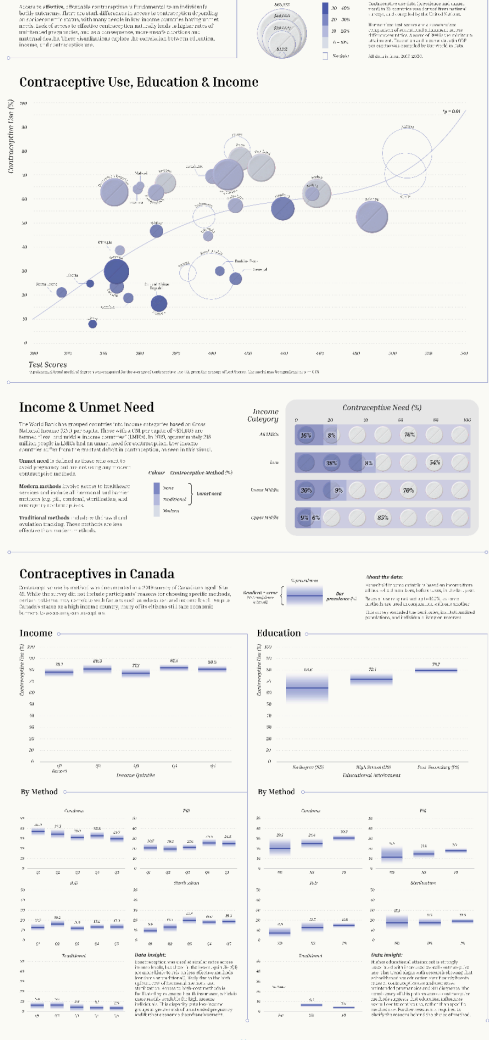| Country	Year	Harmonized test scores	GDP per capita, PPP (constant 2021 international $)	Any method	Any modern method	Any Traditional Method	Unmet need total
Argentina	2020-01-01	408.17264	23877.094	70.1	68.2	1.8	12.5
Argentina	2019-01-01		26629.553	70.1	68.2	1.8	12.5
Austria	2020-01-01	507.63937	60931.94	79	0		
Austria	2019-01-01		65312.023	79	0		
Bangladesh	2020-01-01	368.31528	7015.1978	62.7	59.1	3.6	13.7
Bangladesh	2019-01-01		6838.326	62.7	59.1	3.6	13.7
Belarus	2020-01-01	488.1431	26731.496	52.6	45.9	6.5	17.5
Belarus	2019-01-01		26798.82	52.6	45.9	6.5	17.5
Brazil	2020-01-01	413.24475	17327.516	80.5	79.5	1	
Brazil	2019-01-01		18018.621	80.5	79.5	1	
Burkina Fas	2020-01-01	403.65433	2380.9316	30.1	28.1	2	26
Burkina Fas	2019-01-01		2391.5364	30.1	28.1	2	26
Central Afri	2020-01-01	368.73016	1136.5706	17.8	14.4	3.5	37.6
Central Afri	2019-01-01		1145.0956	17.8	14.4	3.5	37.6
Chad	2020-01-01	333.11133	1780.563	8.1	6.7	1.3	30.2
Chad	2019-01-01		1868.0195	8.1	6.7	1.3	30.2
Cuba	2019-01-01			69	67.9	1.1	8.8
Cuba	2020-01-01			69	67.9	1.1	8.8
Dominican	2020-01-01	345.21652	19721.32	62.8	62	0.8	15.3
Dominican	2019-01-01		21363.861	62.8	62	0.8	15.3
Ethiopia	2020-01-01	348.19904	2516.5488	41.4	40.5	1	
Ethiopia	2020-01-01	348.19904	2516.5488	37	35.8	1.2	20.1
Ethiopia	2020-01-01	348.19904	2516.5488	37.7	35.6	2.1	19.2
Ethiopia	2019-01-01		2437.9702	41.4	40.5	1	
Ethiopia	2019-01-01		2437.9702	37	35.8	1.2	20.1
Ethiopia	2019-01-01		2437.9702	37.7	35.6	2.1	19.2
Gambia	2020-01-01	352.89963	2702.319	18.9	17.1	1.8	24.2
Gambia	2019-01-01		2750.8213	18.9	17.1	1.8	24.2
Guyana	2020-01-01	346.3659	19234.129	29.9	28.6	1.2	30.5
Guyana	2019-01-01		13402.422	29.9	28.6	1.2	30.5
Honduras	2020-01-01	399.7508	5603.264	69.4	66.5	2.8	12.9
Honduras	2019-01-01		6264.019	69.4	66.5	2.8	12.9
Indonesia	2020-01-01	394.9151	12388.545	52.5	51.3	1.2	
Indonesia	2020-01-01	394.9151	12388.545	52.7	51.5	1.1	
Indonesia	2019-01-01		12757.785	52.5	51.3	1.2	
Indonesia	2019-01-01		12757.785	52.7	51.5	1.1	
Kenya	2020-01-01	454.9584	5057.4014	59.7	56.4	3.3	15
Kenya	2020-01-01	454.9584	5057.4014	64.6	60.1	4.5	12.6
Kenya	2019-01-01		5171.7124	59.7	56.4	3.3	15
Kenya	2019-01-01		5171.7124	64.6	60.1	4.5	12.6
Kosovo	2020-01-01	373.54877	11137.497	66.7	9.4	57.3	8.4
Kosovo	2019-01-01		11774.118	66.7	9.4	57.3	8.4
Liberia	2020-01-01	331.74594	1497.377	24.9	23.8	1.1	33.4
Liberia	2019-01-01		1575.7666	24.9	23.8	1.1	33.4
Malawi	2020-01-01	359.48407	1656.4398	65.6	64.7	0.9	15.4
Malawi	2019-01-01		1687.2894	65.6	64.7	0.9	15.4
Moldova	2020-01-01	438.62094	13559.26	56	43.9	12.1	21.2
Moldova	2019-01-01		14621.24	56	43.9	12.1	21.2
Nepal	2020-01-01	368.5576	4412.542	46.7	44.2	2.5	24.7
Nepal	2019-01-01		4607.5244	46.7	44.2	2.5	24.7
Palestine	2020-01-01	412.31775	5423.6826	57.3	42.8	14.5	12.9
Palestine	2019-01-01		6269.891	57.3	42.8	14.5	12.9
Peru	2020-01-01	415.02542	13612.021	75.9	55.6	20.3	6.1
Peru	2020-01-01	415.02542	13612.021	77.4	55	22.3	6.1
Peru	2019-01-01		15466.295	75.9	55.6	20.3	6.1
Peru	2019-01-01		15466.295	77.4	55	22.3	6.1
Rwanda	2020-01-01	358.08398	2518.1653	64.1	56.9	7.2	13.6
Rwanda	2019-01-01		2665.1868	64.1	56.9	7.2	13.6
Samoa	2020-01-01	369.9079	6745.306	16.6	15.9	0.7	38.9
Samoa	2019-01-01		7033.521	16.6	15.9	0.7	38.9
Sao Tome a	2019-01-01		5702.0835	49.7	46.1	3.7	27.1
Sao Tome a	2020-01-01		5742.9473	49.7	46.1	3.7	27.1
Saudi Arabi	2020-01-01	398.96893	51782.57	27.9	24.4	3.5	
Saudi Arabi	2019-01-01		56365.508	27.9	24.4	3.5	
Senegal	2020-01-01	412.45386	4018.0413	26.9	25.4	1.4	21.7
Senegal	2019-01-01		4070.6123	26.9	25.4	1.4	21.7
Serbia	2020-01-01	457.4535	21719.705	62.3	21.4	40.8	8.8
Serbia	2019-01-01		21782.447	62.3	21.4	40.8	8.8
Sierra Leon	2020-01-01	315.87595	2751.9666	21.2	20.8	0.4	24.8
Sierra Leon	2019-01-01		2851.9792	21.2	20.8	0.4	24.8
Spain	2020-01-01	506.6212	41372.78	70.5	69.9	0.6	
Spain	2019-01-01		46682.477	70.5	69.9	0.6	
Thailand	2020-01-01	426.59998	19956.547	73	71.3	1.7	8
Thailand	2019-01-01		21277.082	73	71.3	1.7	8
Tonga	2020-01-01	385.9568	6995.3174	29.3	25.2	4.1	
Tonga	2019-01-01		6875.0254	29.3	25.2	4.1	
Turkmenist	2019-01-01		15231.306	49.7	47.3	2.4	9.7
Turkmenist	2020-01-01		15791.178	49.7	47.3	2.4	9.7
Turks and C	2019-01-01		27826.016	34.4	33.5	0.9	22
Turks and C	2020-01-01		19813.406	34.4	33.5	0.9	22
Tuvalu	2020-01-01	346.49796	5154.454	23.7	22.4	1.3	26.2
Tuvalu	2019-01-01		5292.025	23.7	22.4	1.3	26.2
Uganda	2020-01-01	397.15967	2678.009	44.6	36.5	8	17
Uganda	2019-01-01		2689.4102	44.6	36.5	8	17

Fig 3 data

- Income:

Subgroup	% Total of use	(-) error	(+) error	Condom	(-) error	(+) error	Pill	(-) error	(+) error	IUD	(-) error	(+) error	Vasectomy or Tubal Sterilization	(-) error	(+) error	Traditional Methods	(-) error	(+) error
Q1	0.781	0.743	0.816	0.369	0.328	0.411	0.207	0.171	0.247	0.127	0.096	0.164	0.096	0.075	0.121	0.058	0.039	0.081
Q2	0.809	0.766	0.848	0.345	0.300	0.392	0.196	0.159	0.237	0.162	0.129	0.201	0.132	0.106	0.163	0.059	0.043	0.078
Q3	0.773	0.730	0.812	0.310	0.276	0.347	0.210	0.179	0.243	0.119	0.093	0.148	0.198	0.166	0.233	0.038	0.026	0.055
Q4	0.821	0.790	0.849	0.328	0.288	0.370	0.255	0.218	0.294	0.132	0.106	0.161	0.180	0.148	0.217	0.031	0.021	0.045
Q5	0.809	0.777	0.837	0.297	0.258	0.338	0.248	0.212	0.288	0.133	0.103	0.168	0.185	0.154	0.219	0.029	0.019	0.042
		0.038	0.035		0.041	0.042		0.036	0.040		0.031	0.037		0.038	0.035		0.038	0.035
		0.043	0.039		0.045	0.047		0.037	0.041		0.033	0.039		0.043	0.039		0.043	0.039
		0.043	0.039		0.034	0.037		0.031	0.033		0.026	0.029		0.043	0.039		0.043	0.039
		0.031	0.028		0.040	0.042		0.037	0.039		0.026	0.029		0.031	0.028		0.031	0.028
		0.032	0.028		0.039	0.041		0.036	0.040		0.030	0.035		0.032	0.028		0.032	0.028

- Educational attainment:

Subgroup	% total	(-) error	(+) error	Condom	(-) error	(+) error	Pill	(-) error	(+) error	IUD	(-) error	(+) error	Vasectomy or Tubal Sterilization	(-) error	(+) error	Traditional Methods	(-) error	(+) error
No Degree	0.646	0.504	0.770	0.201	0.124	0.298	0.115	0.049	0.219	0.069	0.032	0.127	0.173	0.111	0.253			
High School	0.721	0.665	0.772	0.248	0.202	0.298	0.146	0.111	0.186	0.125	0.084	0.176	0.174	0.139	0.214	0.064	0.037	0.101
Post-Secondary	0.797	0.780	0.814	0.303	0.282	0.325	0.177	0.159	0.196	0.146	0.129	0.164	0.190	0.173	0.208	0.039	0.032	0.047
		0.142	0.124		0.077	0.097		0.066	0.104		0.037	0.058		0.062	0.080			
		0.056	0.051		0.046	0.050		0.035	0.040		0.041	0.051		0.035	0.040		0.027	0.037
		0.017	0.017		0.021	0.022		0.018	0.019		0.017	0.018		0.017	0.018		0.007	0.008

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