Newham London

Guide to Using DILLN

Intro to DILLN

DILLN is a POWERBI dashboard that colleagues can access using this link.

DILLN provides a snapshot of a population that can be compared to data about service users. DILLN can be filtered by age, sex, ethnic group, deprivation level, and ward – and so can be compared to specific service offers.

Comparing the DILLN snapshot to a service user profile can tell about proportionality and it can help us to ask “who uses the service and do they look like Newham?”

The tool can help you progress along the ‘four steps to improving equity’ route of change. Once you understand the ways your service is not representative of the population, you can start to ask “why?”

Four steps to improving equity

Understanding the picture as is

Do service users reflect the local demographics/target populations?

Are ONS18+1 ethnicity groups used for data collection?

Is there any variation in people's experience of the service?

Is there any variation in people's outcomes?

Health Equity Toolkit - Use **DILLN** to benchmark service user data against Newham's population.

Promote conversation about what equity means, why it matters, and your own positionality. Use Domain 1 of the **Health Equity Routemap** to support these reflections.

Digging deeper into the root causes

What might be the causes of variation?

What more information might you need to make sense of the situation?

Is there a difference in your service and similar services locally/regionally?

Health Equity Toolkit - Use the **ART framework** to review how accessible, relevant and trusted the service is by users.

Conduct a literature review to understand any patterns/similarities/good practice.

Considering the change idea

What does 'good' look like, and how might you get there?

What else is happening in the system that may affect the outcome of your work?

How might you prioritise/decide what to do?

Health Equity Toolkit - Review case studies and best practice.

Co-produce change with residents and VCFS groups that represent the service users you want to reach, as identified using **DILLN**.

Implement and evaluate

Plan: measuring success
Do
Study/review
Act/modify

The four stage are a cycle, when will you review this again?

Health Equity Toolkit- Use the **ART Framework** and **DILLN** to evaluate the changes you have made in your next service review..

Use the **Health Equity Routemap** to consider your next steps in reducing health inequalities within your service/organisation.

WE ARE NEWHAM.

Contents

This slide deck provides a worked example that uses anonymised referral data from the Joy social prescribing service from the last 12 months.

The process of making an insightful comparison using DILLN can be broken up into the following steps:

1. Extracting your service data
2. Preparing your data
3. Extracting relevant DILLN data
4. Combining and cleaning your data
5. Making notes on data issues
6. Comparing the data
7. Getting insight and ‘what next’

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Extracting your service data

Extracting your service data

In this example, anonymised referral data shows what referrals have been made, what services these people were referred to, and some characteristics about these people – including their **ethnic group.**

If we compare the ethnicity data to the Newham population, we can see whether some groups use the service more or less than we would expect.

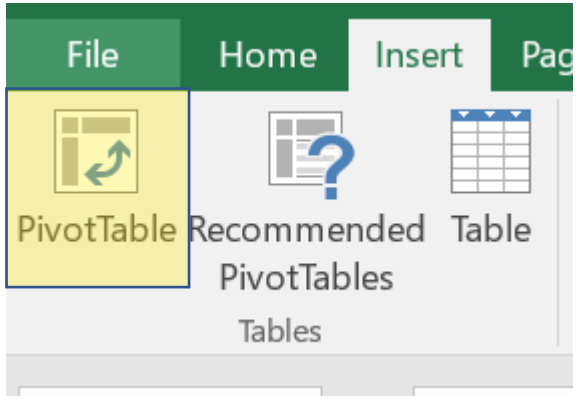
	B	C	E	H	I
1	Joy_Organisation	Client_Status	Date_First_Contact	Client_Gender	Client_Ethnicity
47	North East 2 PCN - Newham	Discharged successful	18/01/2022	Female	-
48	North East 2 PCN - Newham	Active	-	-	-
49	Our Newham Money	Active	-	-	-
50	North East 2 PCN - Newham	Discharged successful	-	Female	African
51	North East 2 PCN - Newham	Active	-	-	-
52	North East 2 PCN - Newham	Active	-	-	-
53	North East 2 PCN - Newham	Active	-	-	-
54	North Newham PCN	Discharged successful	-	Female	English, Welsh, Scottish, Norther
55	South One Newham Primary Car	Discharged successful	13/07/2021	Female	English, Welsh, Scottish, Norther
56	North East 2 PCN - Newham	Discharged other	21/09/2022	-	-
57	North East 2 PCN - Newham	Active	-	-	-
58	North East 2 PCN - Newham	Active	08/12/2022	-	-
59	North East 2 PCN - Newham	Discharged successful	06/09/2023	Female	Any other Asian background
60	South One Newham Primary Car	Discharged successful	01/07/2021	Female	English, Welsh, Scottish, Norther
61	South One Newham Primary Car	Discharged other	08/07/2021	Male	English, Welsh, Scottish, Norther
62	North Newham PCN	Discharged no show	-	Female	Any other Asian background
63	North Newham PCN	Discharged successful	-	Male	Any other Asian background
64	South One Newham Primary Car	Discharged successful	22/03/2022	Male	African
65	North Newham PCN	Discharged successful	-	Female	-
66	North Newham PCN	Discharged no show	-	Female	Indian
67	North Newham PCN	Discharged successful	-	Female	African
68	North Newham PCN	Discharged other	-	Female	-
69	South One Newham Primary Car	Discharged successful	14/07/2021	Male	Prefer not to say
70	South One Newham Primary Car	Discharged successful	14/03/2022	-	Caribbean
71	North East 2 PCN - Newham	Discharged other	-	-	-
72	North Newham PCN	Discharged successful	03/05/2023	Female	English, Welsh, Scottish, Norther
73	North Newham PCN	Discharged other	-	Female	Any other Asian background
74	North East 2 PCN - Newham	Discharged successful	07/07/2022	-	-
75	South One Newham Primary Car	Discharged other	21/07/2021	Male	Prefer not to say
76	North East 2 PCN - Newham	Discharged other	20/03/2023	-	-
77	South One Newham Primary Car	Discharged other	22/07/2021	Male	English, Welsh, Scottish, Norther
78	North East 2 PCN - Newham	Active	-	-	-
79	North East 2 PCN - Newham	Active	-	-	-
80	North East 2 PCN - Newham	Active	-	-	-
81	North East 2 PCN - Newham	Active	-	-	-
82	Our Newham Money	Active	-	-	-
83	North East 2 PCN - Newham	Discharged successful	06/03/2023	Female	Pakistani

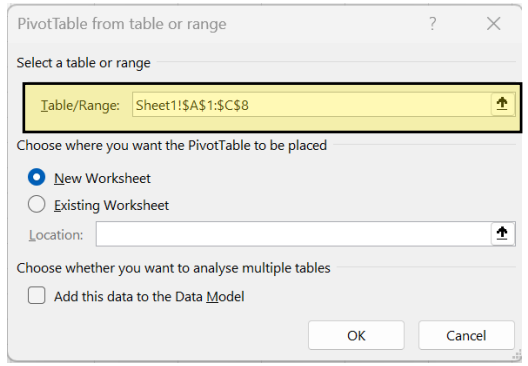
Preparing your data

Preparing your data

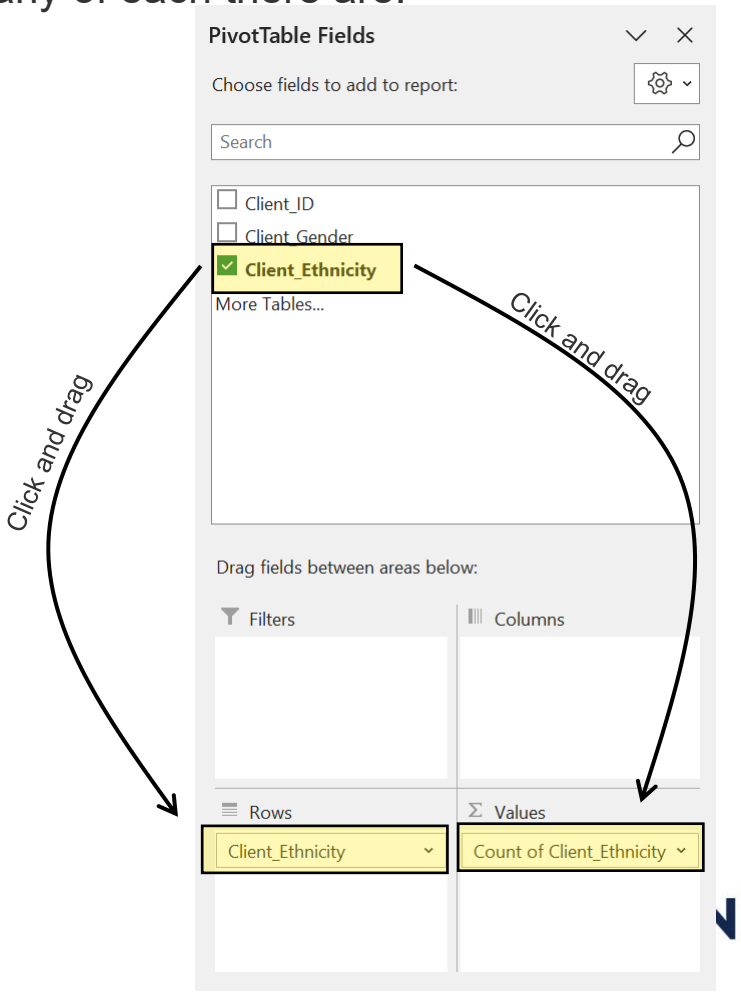
To create a **Pivot table**, highlight all the data and go to ‘Insert’, and ‘Pivot table’.

The Table/Range box should match the bounds of your data





To count how many people of each ethnic group there is, you need to **Click and Drag** the ethnicity field to **Rows**, to list them, and **Count**, to show hoe many of each there are.



Preparing your data

To make comparisons to DILLN easier, you can add a percentage column.

If there are a lot of people (more than 10-20% of the total) whose ethnicity is not recorded, you should not include these people as it will make the graph harder to draw insight from. You can do this by unticking these options in the Pivot table Pop Up menu. This is an issue with the data that you will need to record and assess the impact of later in the process.

Client_Ethnicity	
African	1582
Any other Asian background	610
Any other Black, African or Caribbean background	454
Any other ethnic group	154
Any other Mixed or Multiple ethnic background	271
Any other White background	972
Arab	97
Bangladeshi	1822
Caribbean	949
Chinese	82
English, Welsh, Scottish, Northern Irish or British	2031
Gypsy or Irish Traveller	12
Indian	1286
Irish	14
Pakistani	987
Prefer not to say	210
White and Asian	19
White and Black African	47
White and Black Caribbean	73
Grand Total	11672

Use the =SUM function for a total.

Client_Ethnicity		
African	1582	=B3/B22
Any other Asian background	610	
Any other Black, African or Caribbean background	454	
Any other ethnic group	154	
Any other Mixed or Multiple ethnic background	271	
Any other White background	972	
Arab	97	
Bangladeshi	1822	
Caribbean	949	
Chinese	82	
English, Welsh, Scottish, Northern Irish or British	2031	
Gypsy or Irish Traveller	12	
Indian	1286	
Irish	14	
Pakistani	987	
Prefer not to say	210	
White and Asian	19	
White and Black African	47	
White and Black Caribbean	73	
Grand Total	11672	

Divide each by the total for a proportion. Use dollar signs after the **Grand total** values in the formula.

Client_Ethnicity		
African	1582	13.55%
Any other Asian background	610	5.23%
Any other Black, African or Caribbean background	454	3.89%
Any other ethnic group	154	1.32%
Any other Mixed or Multiple ethnic background	271	2.32%
Any other White background	972	8.33%
Arab	97	0.83%
Bangladeshi	1822	15.61%
Caribbean	949	8.13%
Chinese	82	0.70%
English, Welsh, Scottish, Northern Irish or British	2031	17.40%
Gypsy or Irish Traveller	12	0.10%
Indian	1286	11.02%
Irish	14	0.12%
Pakistani	987	8.46%
Prefer not to say	210	1.80%
White and Asian	19	0.16%
White and Black African	47	0.40%
White and Black Caribbean	73	0.63%
Grand Total	11672	

Drag this box down from the corner

Drag the box to fill and format as percentages using: Home → Number → Percent

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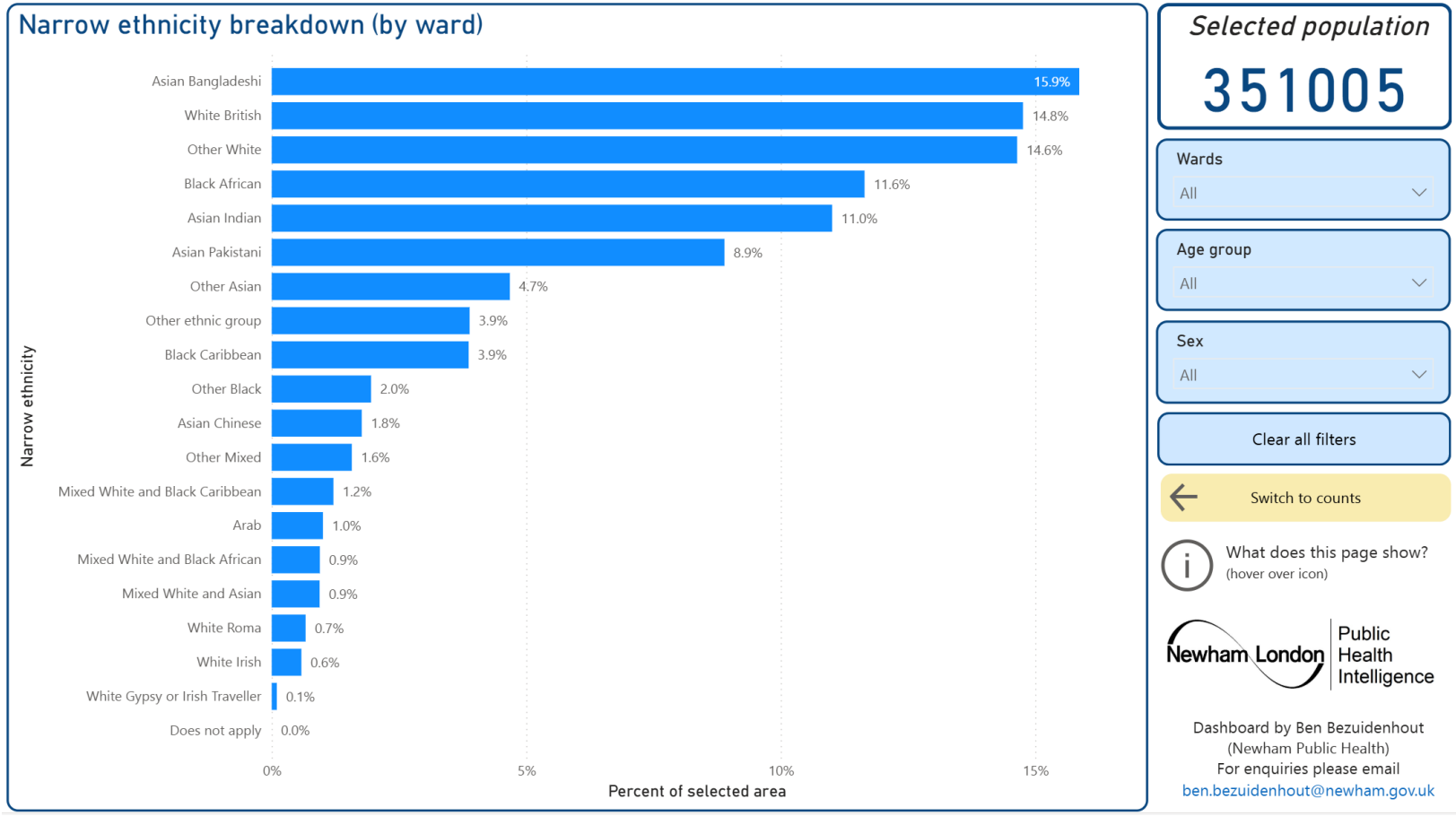
Extracting DILLN data

Extracting DILLN data

In the DILLN tool, navigate to the “Ward % (narrow / ONS20) tab”

Ensuring your data is collected with ONS18+1 categories (as minimum) will enable an easier and more useful comparison using the DILLN tool.

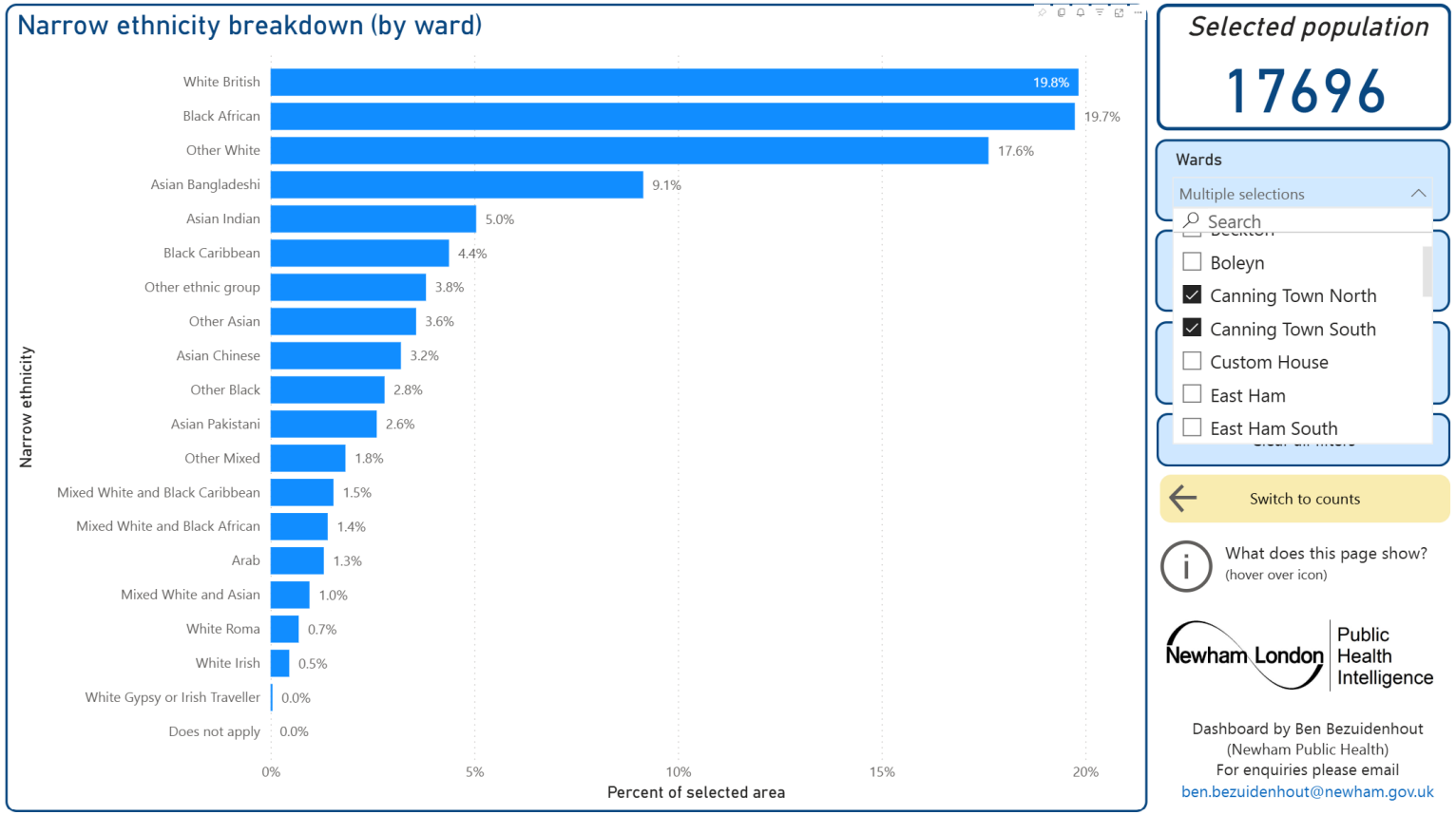
If it isn’t collected into these categories, you can manually work out how to match your records. For support with this, please contact healthequity@newham.gov.uk



Extracting DILLN data

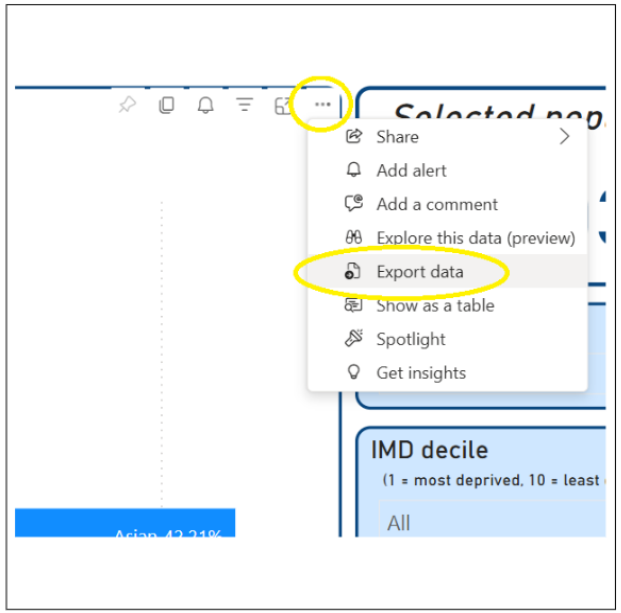
If your service only covers part of Newham's population, you can use the filters on the right to adjust the slice.

In this example, the population is only people living in Canning Town, which significantly effects how the population looks.

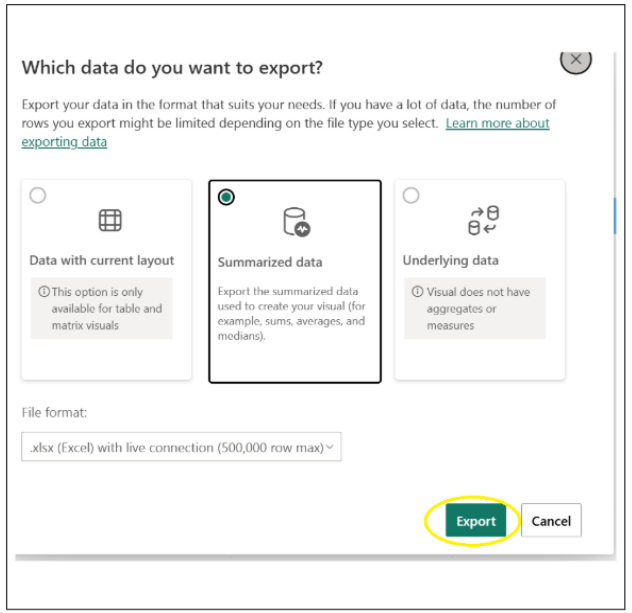


Extracting relevant DILLN data

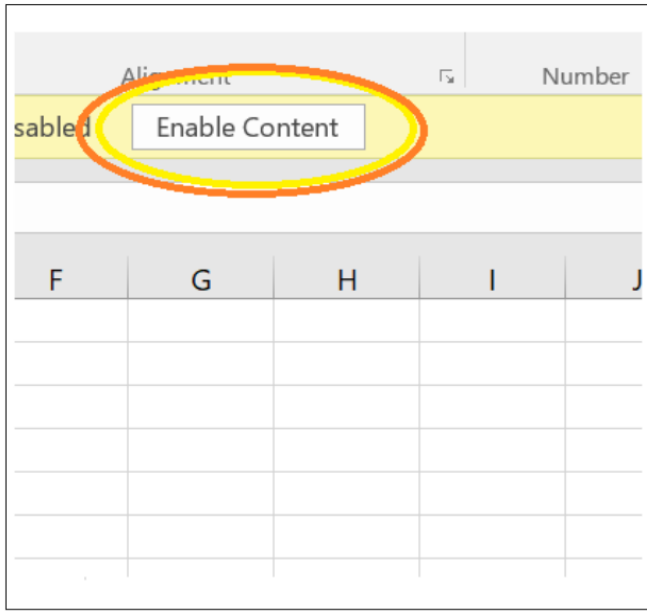
The next step is to export your data from DILLN into Excel:



Once you have your desired data, hover to the top right of the figure and click the three dots to create a drop down. Then select '**Export data**'.



This will open a window asking how you want to export the data. Keep the selection as 'Summarized data' and click '**Export**' on the bottom right.



Once exported, find the file in your 'downloads' folder and open it. Once opened, click the '**Enable Content**' button at the top in the yellow band.

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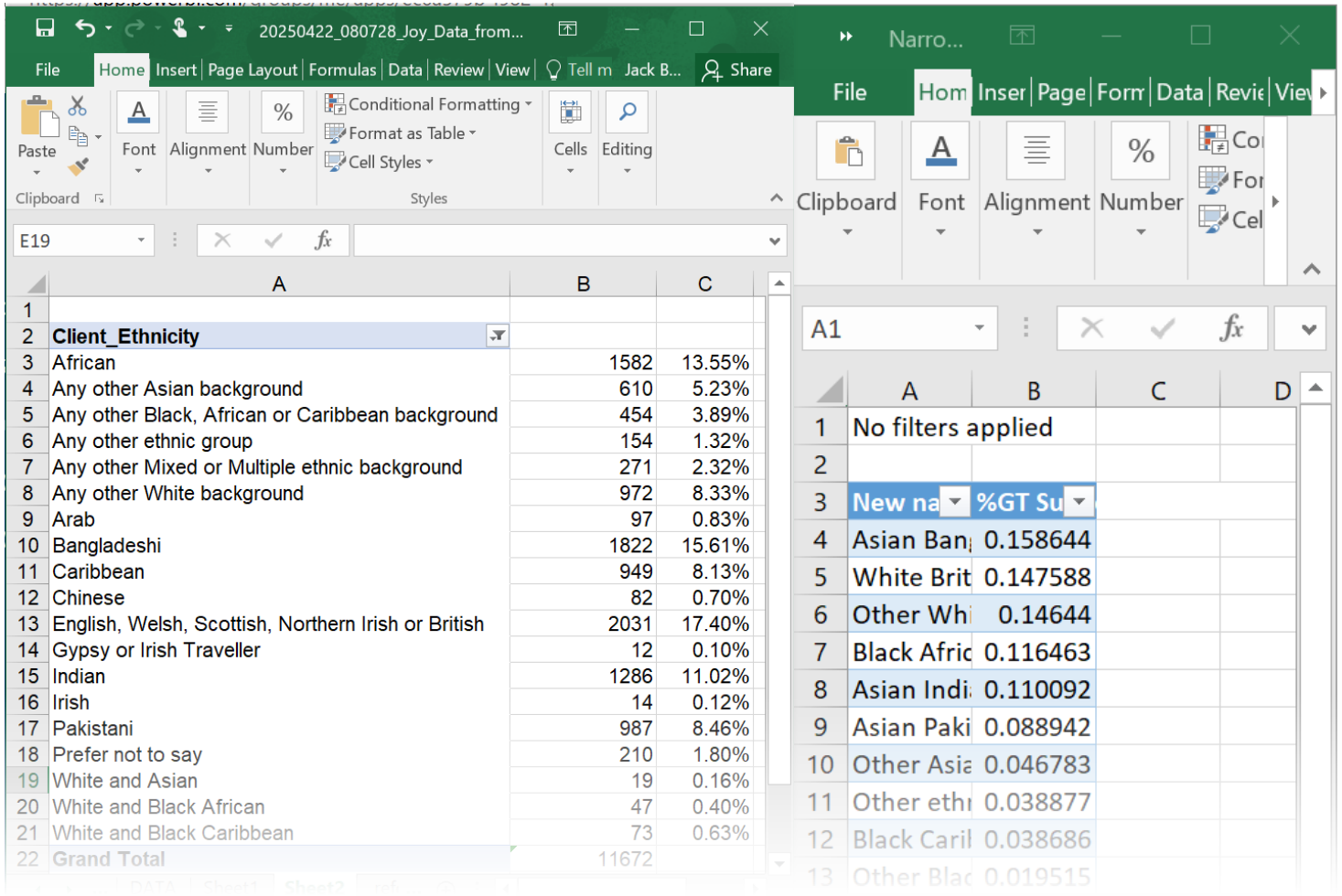
Combining and cleaning your data

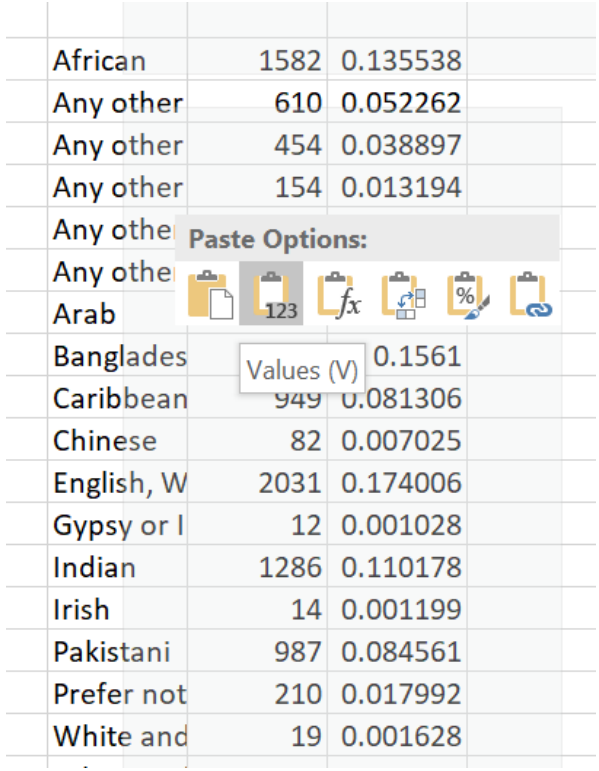
Combining and cleaning your data

Once you have both data sets, you can now **combine and clean** your data, in order to make comparisons



	A	B	C
1			
2	**Client_Ethnicity**		
3	African	1582	13.55%
4	Any other Asian background	610	5.23%
5	Any other Black, African or Caribbean background	454	3.89%
6	Any other ethnic group	154	1.32%
7	Any other Mixed or Multiple ethnic background	271	2.32%
8	Any other White background	972	8.33%
9	Arab	97	0.83%
10	Bangladeshi	1822	15.61%
11	Caribbean	949	8.13%
12	Chinese	82	0.70%
13	English, Welsh, Scottish, Northern Irish or British	2031	17.40%
14	Gypsy or Irish Traveller	12	0.10%
15	Indian	1286	11.02%
16	Irish	14	0.12%
17	Pakistani	987	8.46%
18	Prefer not to say	210	1.80%
19	White and Asian	19	0.16%
20	White and Black African	47	0.40%
21	White and Black Caribbean	73	0.63%
22	Grand Total	11672	

Combining the data



Import the data into the same document using the 'Paste Values' option in the right click menu to remove the table formatting.

	Population percentage	Social Prescribing referral percentage
Asian Bangladeshi	15.86%	15.61%
White British	14.76%	17.40%
Other White	14.64%	8.33%
Black African	11.65%	13.55%
Asian Indian	11.01%	11.02%
Asian Pakistani	8.89%	8.46%
Other Asian	4.68%	5.23%
Other ethnic group	3.89%	1.32%
Black Caribbean	3.87%	8.13%
Other Black	1.95%	3.89%
Asian Chinese	1.77%	0.70%
Other Mixed	1.57%	2.32%
Mixed White and Black Caribbean	1.21%	0.63%
Arab	1.01%	0.83%
Mixed White and Black African	0.95%	0.40%
Mixed White and Asian	0.94%	0.16%
White Roma	0.67%	
White Irish	0.58%	0.12%
White Gypsy or Irish Traveller	0.10%	0.10%
Does not apply	0.00%	

If your labels are different, move the data over manually to line up the ethnicity category rows, and label each row.

After this is done, you might need to change the numbers back into percentages.

Cleaning the data

You should make any changes to the data that are required and note them.

In this example, White Roma had to be removed as it was not recorded in one of the datasets, and the ‘Does not Apply’ option had to be removed.

	Population percentage	Social Prescribing referral percentage
Asian Bangladeshi	15.86%	15.61%
White British	14.76%	17.40%
Other White	14.64%	8.33%
Black African	11.65%	13.55%
Asian Indian	11.01%	11.02%
Asian Pakistani	8.89%	8.46%
Other Asian	4.68%	5.23%
Other ethnic group	3.89%	1.32%
Black Caribbean	3.87%	8.13%
Other Black	1.95%	3.89%
Asian Chinese	1.77%	0.70%
Other Mixed	1.57%	2.32%
Mixed White and Black Caribbean	1.21%	0.63%
Arab	1.01%	0.83%
Mixed White and Black African	0.95%	0.40%
Mixed White and Asian	0.94%	0.16%
White Irish	0.58%	0.12%
White Gypsy or Irish Traveller	0.10%	0.10%

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Making notes on data issues

Making notes on data issues

In this example, there were three (or four) main issues with the data that should be commented on.

Try and work out what these were from the example so far.

Issues in this dataset:

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1. **White Roma was not included as an option in the Joy dataset.**
Inferences about the Roma population cannot be made, and inferences about the White Gypsy or Irish Traveller population should be made with caution as some people may have been misclassified.

2. The social prescribing data is missing ethnicity on a lot of entries
This means we can be less confident about these results and should only act on strong patterns. These results can be a way to show frontline staff the importance of recording ethnicity for next time.

3. There is a small sample size for some ethnicities.
If there is more variance for a smaller ethnic group, this could be random chance if it is a small sample size. If this issue comes up, you can collect more data (for example over a longer period of time) to increase the sample size.

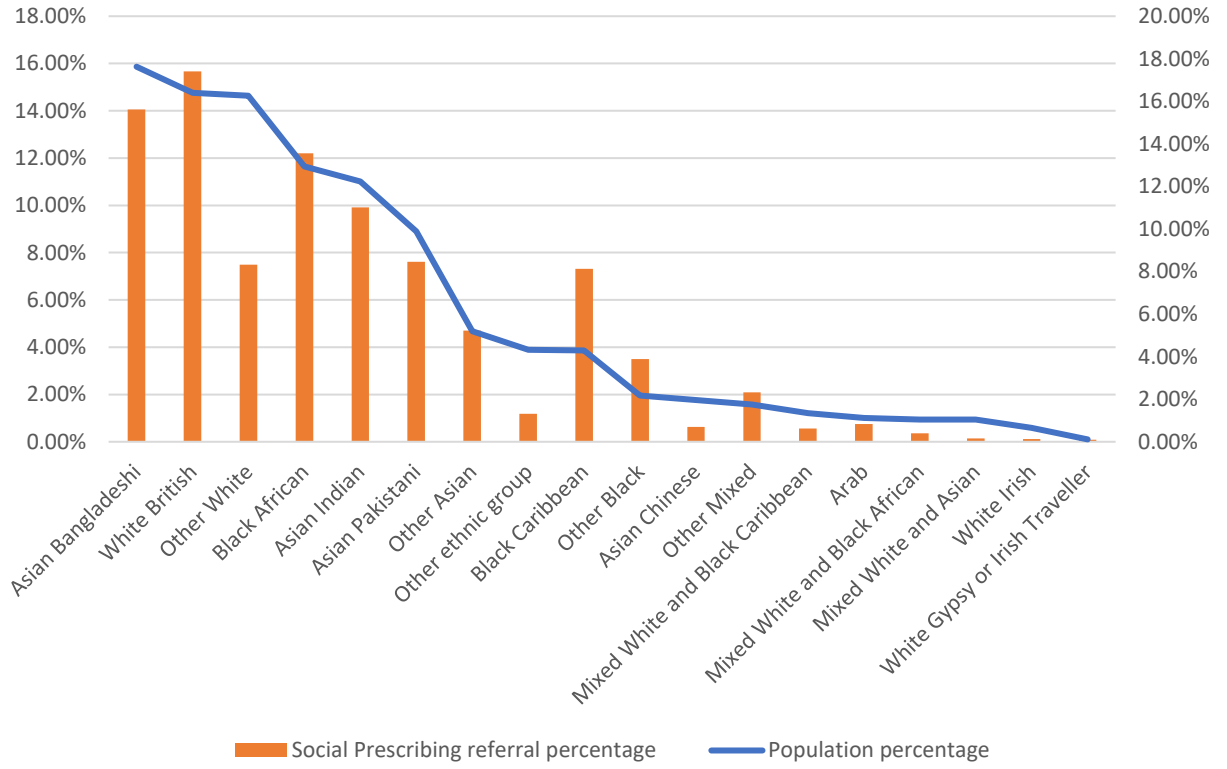
4. Data misclassification
In the social prescribing data, there were 412 results for ‘on’. You should look into results like these to make the original data better quality.

Comparing the data

Comparing the data - graph

You can create a chart to compare the two sets of data by highlighting it and using **Insert → All Charts → Combo Chart**

The **Population Proportion should be a line**, and the **service user data should be a column**.

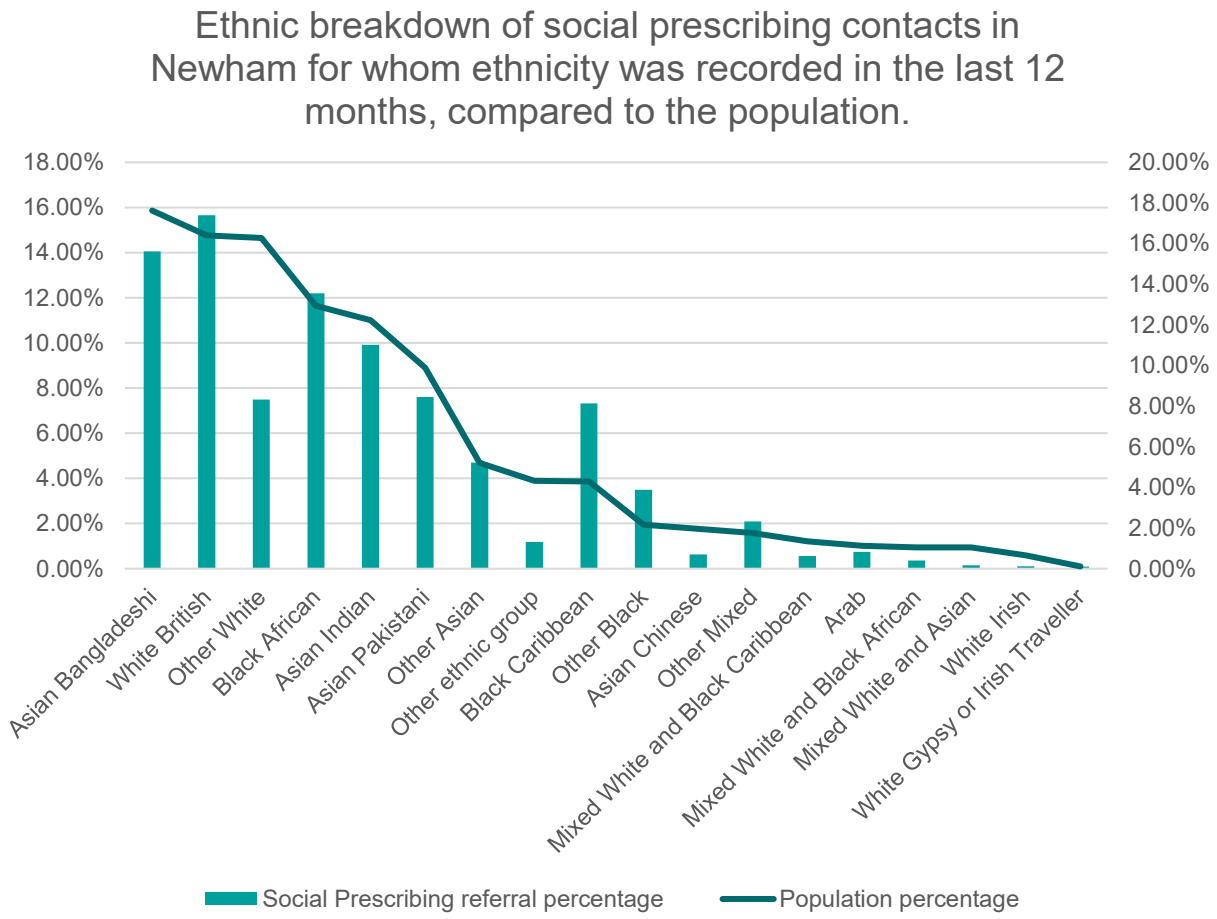


Finishing a graph

You should always add a title that describes what two things you are comparing (your service users and the population, and what you are comparing (ethnicity).

You can also use these colour codes and the Arial font to make the graph match Newham branding.

#9DD3C7 #00A09D #006B6F



Try yourself

If you are not sure how to do this and you have downloaded this PowerPoint, you can copy this data into Excel to try it yourself.

	Population percentage	Social Prescribing referral percentage
Asian Bangladeshi	15.86%	15.61%
White British	14.76%	17.40%
Other White	14.64%	8.33%
Black African	11.65%	13.55%
Asian Indian	11.01%	11.02%
Asian Pakistani	8.89%	8.46%
Other Asian	4.68%	5.23%
Other ethnic group	3.89%	1.32%
Black Caribbean	3.87%	8.13%
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Mixed White and Black African	0.95%	0.40%
Mixed White and Asian	0.94%	0.16%
White Irish	0.58%	0.12%
White Gypsy or Irish Traveller	0.10%	0.10%

Getting insight and ‘what next’

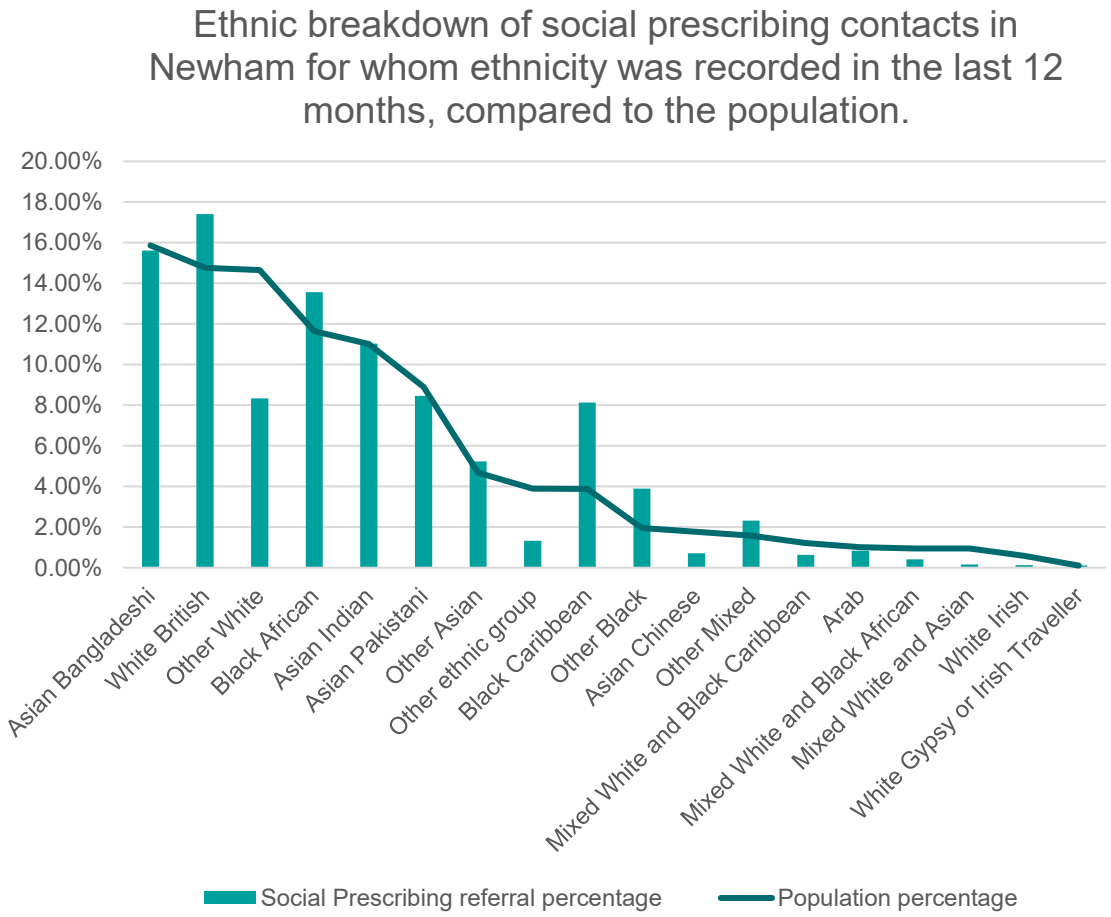
Getting insight and ‘what next’

Summaries of your data should be split into three parts:

1. **What does this tell us?**
2. **What are the caveats?**
3. **What are the recommendations?**

What does this tell us?

In terms of referrals to social prescribing services in Newham in the last 12 months compared to the overall population, *The 'Black' ethnic categories and the 'White British' category are overrepresented, and that the 'Other ethnic group' and 'Other White' group are underrepresented.*



What are the caveats?

The caveats are the same as the data issues identified before:

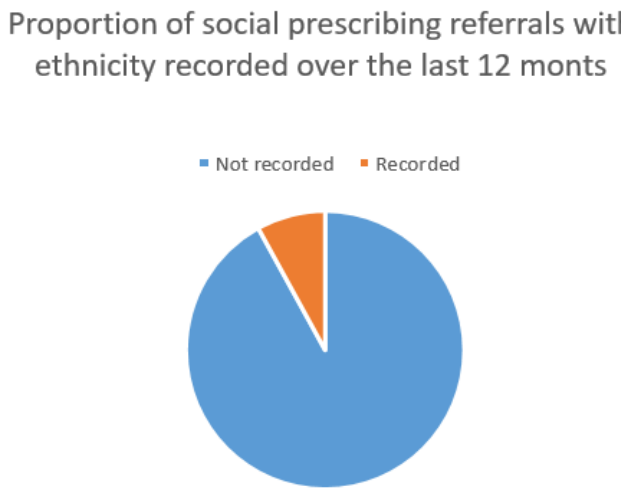
1. **White Roma was not included as an option in the Joy dataset.**

2. The social prescribing data is missing ethnicity on a lot of entries.

3. There is a small sample size for some ethnicities.

4. There are some data misclassifications.

Displaying these issues visually can help to show how they impact the results:



What are the caveats?

You should also explain how each caveat **impacts the data**.

In the case that around 90% of people did not have their ethnicity recorded, this could skew our data.
It is known that incorrect, incomplete, or inconsistent recording of ethnicity is more common in ethnic minorities [1], so some of these groups may be much more underrepresented that the data suggests and the White British group may not be as overrepresented as the data suggests.

[1] Shiekh, Suhail I., et al. "Completeness, agreement, and representativeness of ethnicity recording in the United Kingdom's Clinical Practice Research Datalink (CPRD) and linked Hospital Episode Statistics (HES)." *Population Health Metrics* 21.1 (2023): 3.

What are the recommendations?

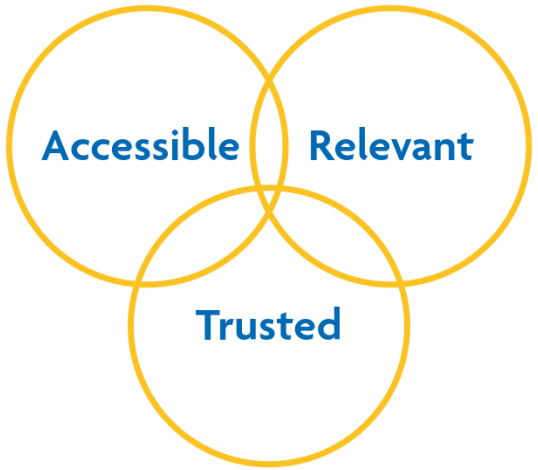
There are usually two kinds of recommendations you can gather from this kind of comparison:

1. Improving the data quality (ie. Addressing the issues you noted).
2. **Making the service more representative.**

One way you might address the second is to consider what the barriers to accessing a service might be. You can do this by using our ART framework and following the four step process.

Our tools - The ART Framework

The ART Framework



What are the barriers to uptake within our control as service providers?

The aim of the ART framework is to **shift agency** for accessing and using health promoting services from current/potential service users to providers.

ART recognises that **accessibility, relevance and trust** are three key elements that encourage people to use our services, and that the absence of these elements can create a barrier to uptake.

WE ARE NEWHAM.

Using the DILLN tool

We're happy for organisations to use and share our case studies – however please use the credit above.
Please also let us know if you are happy for us to produce a case study on your own work.

If you have any questions and want some support – please get in touch with the Newham Health Equity Programme team: health.equity@newham.gov.uk

Pack author – Jack Burnett.

DILLN tool - Adeola Agbebiyi and Ben Bezuidenhout.