Measures in Power BI

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Welcome

- this session is for 🌶️🌶️ intermediate users

- we'll get going properly at 14.05

- if you can't access the chat, you might need to join our Teams channel: **tinyurl.com/kindnetwork**

- this session can be followed practically - you'll need Power BI desktop (plus the sample file) to do that

The KIND network

- a social learning space for staff working with **k**nowledge, **i**nformation, and **d**ata across health, social care, and housing in Scotland

- we offer social support, free training, mentoring, community events, …

- Teams channel / mailing list

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Session outline

- DAX

- measures

  - Excel measures

  - measures vs calculated columns

- basic measures for data summary

- more complex measures for re-filtering

DAX

- **d**ata **a**nalysis e**x**pressions
- based on Excel formula language
- been in use for about 15 years, initially in Excel

Let's try one in Excel

- sample Excel

- PivotTable plus data model needed

- Measures live in tables

- written in DAX: `=CONCATENATEX(VALUES(Table134[Fluid spilled on patients]), Table134[Fluid spilled on patients], ",")`

Into Power BI

- sample file

- confusingly, we find DAX in two different places…

Calculated columns

- Let's calculate an average

- `aver_att = AVERAGE(ae_activity[att])`

Measures

- dynamically recalculate depending on filter context
    - so need to live on a card
- so same DAX = different result
- `aver_att_meas = AVERAGE(ae_activity[att])`

Basic functions for measures

- SUM, AVERAGE, COUNT, MAX

- measure-in-measure

- & and ROUND

More interesting measures: filter

- `count_12 = COUNTROWS(FILTER(ae_activity, ae_activity[over12] > 20))`
- `FILTER` allows us to look at how parts of our data change

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More interesting measures: calculate

- `count_12_calc = CALCULATE(COUNT([att]), ae_activity[over12] > 20)`
- CALCULATE changes the default filter context

More interesting measures: keepfilters

- count_12_calc_kf = CALCULATE(COUNT([att]), KEEPFILTERS(ae_activity[over12] > 20))

- KEEPFILTERS pokes the default filter context through into a CALCULATE

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Evaluation and resources

Please could you complete a one-minute anonymous feedback survey?

- Definitive Guide to DAX

- SQLBI CALCULATE

- SQLBI KEEPFILTERS

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