

Measures in Power BI

Brendan Clarke, NHS Education for Scotland, brendan.clarke2@nhs.scot

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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 knowledge, information, and data across health, social care, and housing in Scotland
- we offer social support, free training, mentoring, community events, ...
- Teams channel / mailing list

Power BI training sessions

Session	Date	Area	Level
DAX vs Power Query M	15:00-16:00 Wed 31st July 2024	Power BI	 :beginner-level

Session outline

- DAX
- measures
 - Excel measures
 - measures vs calculated columns
- basic measures for data summary
- more complex measures for re-filtering

DAX

- data analysis expressions
- 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

Row-wise operations

- SUMX
- CONCATENATEX (from Excel example)

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

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**

... ## Evaluation and resources

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

- Definitive Guide to DAX
- SQLBI CALCULATE
- SQLBI KEEPFILTERS