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# What role health care systems in engagement in care?

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WORLD  
CHANGERS  
WELCOME







## Workshop outline

- Aim and context (1/2 hour)
- Gathering and synthesizing (1/2 hour)
- Discussion (1/2 hour)





## Aims

- Gather & reflect on the influences that impact on patients' ability to engage in health care- lower and higher engagement
- What are the implications for the primary care research agenda?
  - generally?
  - specifically for your context?





## Context

- Health & health care as a human right (HRBA)
- Low engagement in care as **MISSINGNESS**
- Who is missing from our services/care and why?
- Flipping this- examples of explicit **INCLUSION?**





## Sensitizing concepts

- Who is a 'candidate' for care -candidacy theory
- 'the work of being a person'
- 'stickiness' of services





# Candidacy theory

Aspect	example
<b>Identification</b> of candidacy	Individuals view themselves as legitimate candidates for particular health services
<b>Navigation</b> of services	Knowing how to make contact with a service & mobilising practical resources
<b>Permeability</b> of services	Service organisation demands specific qualifications of candidacy & mobilisation of resources for initial access
<b>Asserting</b> candidacy	Individuals presenting their claim to candidacy for medical attention
<b>Adjudication by health service</b>	Individuals' claim to candidacy is validated or otherwise, which influences previous stages of subsequent candidacy journeys
<b>Offers of, resistance to, services</b>	Follow-up services may be appropriately or inappropriately offered & these may or may not be acted upon by service users
<b>Operating condition &amp; local production</b> of candidacy	The contingent & locally specific influences on interactions between health services & service users, which develop over time

(Acknowledgement- Jamie Stewart; summary from McKenzie et al Social Policy and Administration 2012)



## Serial Missed Appointments

- Proxy for low engagement in care
- As a ‘health harming behaviour’
- Importance of the **patients’** journey through healthcare (whole systems approach)





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# Scottish General Practice

- (almost all) **population coverage**
- **Universal access & free** at point of care
- Unique **patient record from birth to death**
- Major advances in electronic records recording & retrieval





## Definition & analysis

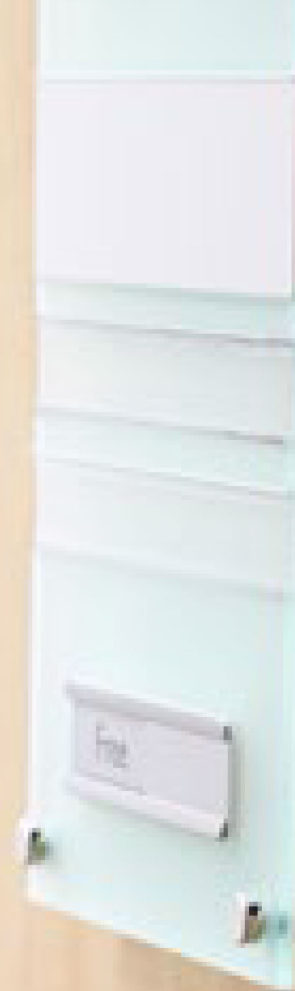
**Average** of primary care face to face appointments over previous **three years**

- **Never missed appointments per year, 0**
- **Low missed appointments per year, <1**
- **Medium missed appointments per year, 1-2**
- **High missed appointments per year, 2 or more**

Frequency counts

Negative Binomial Regression Modelling across 4 appointment groups

(Williamson et al BMJ Open 2017)





## Role of patient turnover

- No identified difference between the **core dataset** (patients on GP list for 3 years) and **those who entered late or left early**

(Ellis, McQueenie et al Lancet Public Health 2017)





## Missed appointments results

136 Scottish representative GP practices

**550 083** patient records

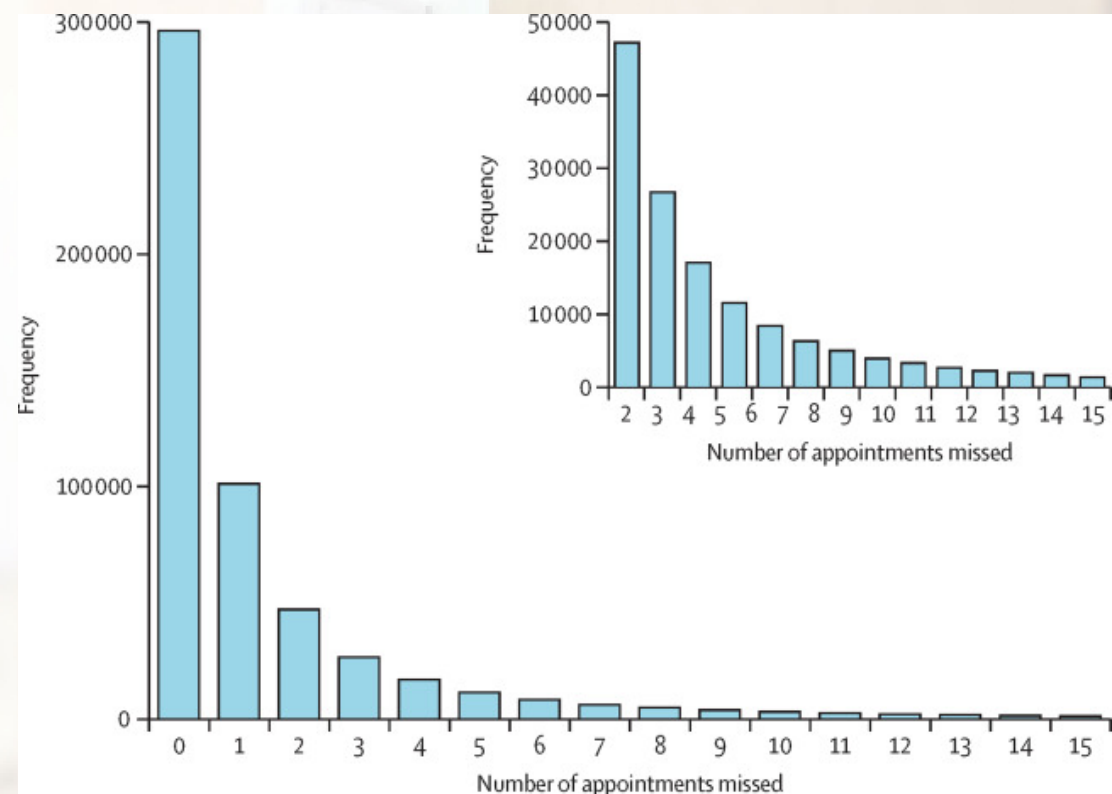
9 177 054 consultations

**54.0%** (297,002) missed no appointments

**46.0%** (212,155) missed one or more appointments

**19.0%** (40,926) missed more than two appointments

(Ellis, McQueenie et al Lancet Public Health 2017)





## Patient demographic factors

- Most socio-economically deprived (**SIMD 1**) patients most likely to miss appointments (RRR 2·27, 95% CI 2·22–2·31)
- Most remotely located patients least likely to miss appointments (RR 0.37, 0.36–0.38)
- Patients aged **16–30 years** (1·21, 1·19–1·23) & **older than 90 years** (2·20, 2·09–2·29) more likely to miss appointments
- Effect of gender small
- Ethnicity poorly recorded (2.69% all records)

(Ellis, McQueenie et al Lancet Public Health 2017)



## GP practice demographic factors

- **Appointment delay 2–3 days** (RRR 2.54, 95% CI 2.46–2.62) most strongly associated with non-attendance
- **Urban GP practices** more strongly associated with missed appointments
- **More deprived patients registered with GP practices in more affluent settings have the highest risk of missing appointments**

(Ellis, McQueenie et al Lancet Public Health 2017)



## Patient and practice demographics

- **Practice factors have a larger effect** than patient factors but a model combining both patient and practice factors gave a higher Cox-Snell pseudo  $R^2$  value (0.66) than models using either group of factors separately (patients only  $R^2=0.54$ ; practice only  $R^2=0.63$ )

(Ellis, McQueenie et al Lancet Public Health 2017)



## Morbidity and mortality (1)

- Patients with **more long-term conditions** have increased risk of missing GP appointments (controlling for number of apts made)
- Patients missing appointments were at much greater risk of **all-cause mortality, the risk increasing with number of missed appointments** (independent of morbidities)

(McQueenie et al BMC Medicine, 2019)



## Morbidity and mortality (2)

- Patients with **long-term mental-health conditions** missing **>2 appointments per year** had **>8x** risk of all-cause mortality compared with those who missed no appointments
- These patients died at a **younger age**, and commonly from **non-natural external factors**
- **Missing appointments repeatedly seems to be a powerful marker for greatly increased risk of mortality, particularly among those without physical long-term conditions** (after adjustment for all other mortality risks)

(McQueenie et al BMC Medicine, 2019)





# Gathering

Low engagement in care= high risk of missingness

Person.....Family medicine.....hospital care

- What factors **influence low** engagement in care?
- What factors **influence higher** engagement in care?
- Add ✓ if you agree with another's statement





## Synthesizing

- **Lower engagement in care** - organize within person, family medicine, hospital care
- **Higher engagement in care** - organize within person, family medicine, hospital care
- Frequently agreed first





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# Discussion

- What have we discovered?
- What are the implications for the primary care research agenda?
  - generally?
  - Specifically for your context?
- Leave your email contact to be sent our synthesis of today's workshop





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## Further SMA papers

- ACEs and recording rates
- Health care utilization
- Educational attainment and exclusions
- ADHD cohort
- Modelling unmet need





## Further SMA work

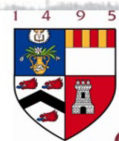
- Current evidence base:
  - Complete the patient journey through health care-outcomes & utilisation
    - **diagnosis codes for A&E, OP and admissions**
    - **GP OOH, NHS24 and ambulance data**
- Current practice developments:
  - Develop an SMA predictive model
    - **practices target existing SMA patients for care**
- Future interventions development:
  - GP practice whole system predictive template
  - Systematic review of whole system interventions
  - Qualitative study work with stakeholders and SMA experts by experience





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Further information

<http://www.gla.ac.uk/serialmissedappointments>



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