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# Missingness in healthcare, importance, causes and solutions January 2025

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Health, on behalf of the missingness research team

**WORLD  
CHANGING  
GLASGOW**

THE SUNDAY TIMES  
THE SUNDAY TIMES

**GOOD  
UNIVERSITY  
GUIDE  
2022**

**SCOTTISH  
UNIVERSITY  
OF THE YEAR**





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# Presentation Outline

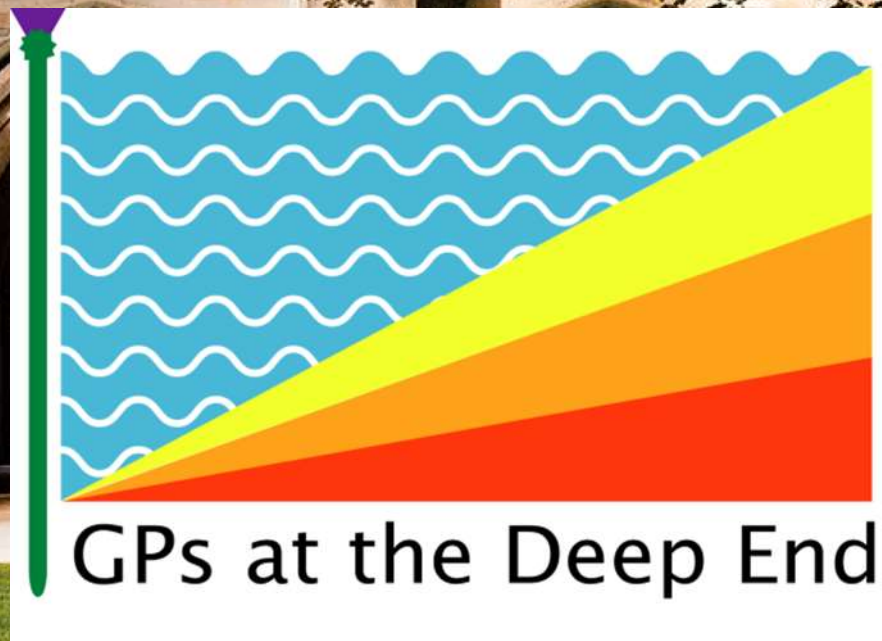
- Introduction and context
- Background epidemiological work
- Causes of missingness in healthcare
- Addressing missingness in healthcare





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# Context & influences







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## **Acknowledgement**

**I acknowledge the survivorship of the people who are in Inclusion Health groups and who I meet and represent in my work. They continue to be an inspiration to me through their resilience and strength in the face of adversity.**

# Defining 'Missingness'

*“The **repeated tendency** not to take up opportunities for care, such that it has a **negative impact on the person and their life chances**”*

(Lindsay et al, 2023)

- Not one or two, but multiple missed appointments over an extended period of time
- Signifies **significant and enduring challenges** in accessing and engaging in healthcare





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# SMA Research Acknowledgements

Co-investigators: David A Ellis, Alex McConnachie & Phil Wilson

Researcher: Ross McQueenie

Collaborator: Mike Fleming

Trusted Third Party: Dave Kelly Albasoft

Participating GP practices

Colleagues at Scot Gov and eDRIS

## Missed appointments results

136 Scottish representative GP practices

**550 083** patient records

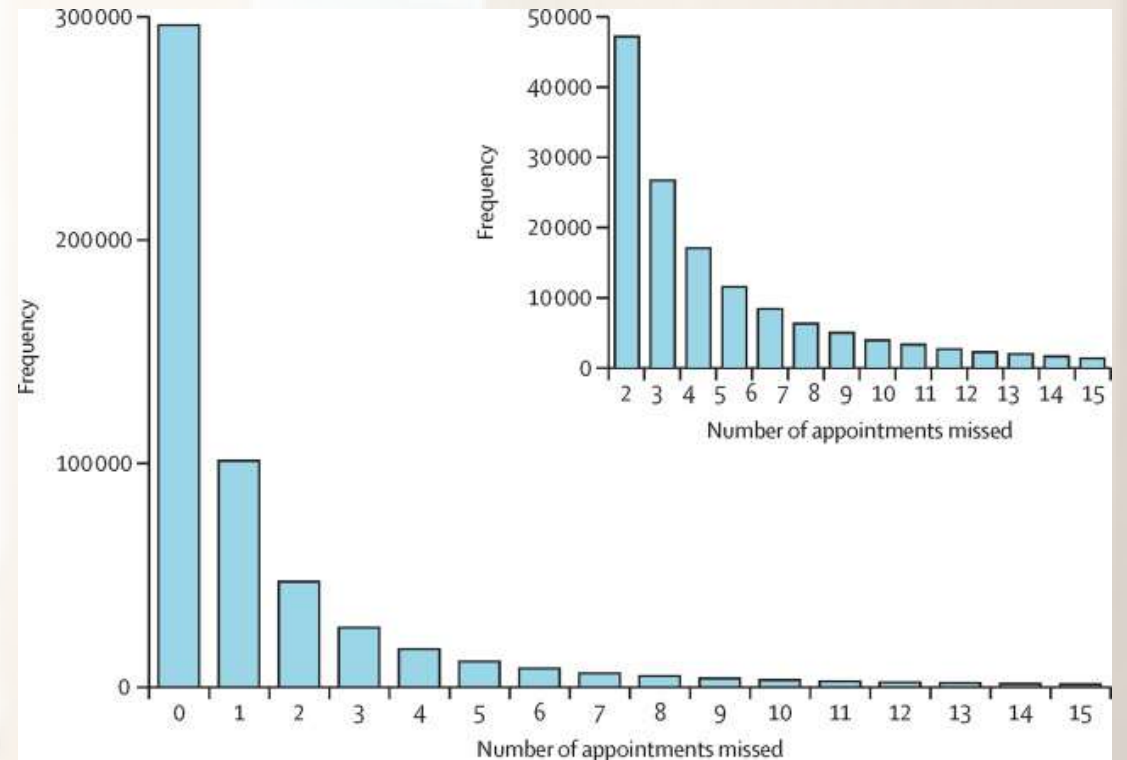
9 177 054 consultations

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

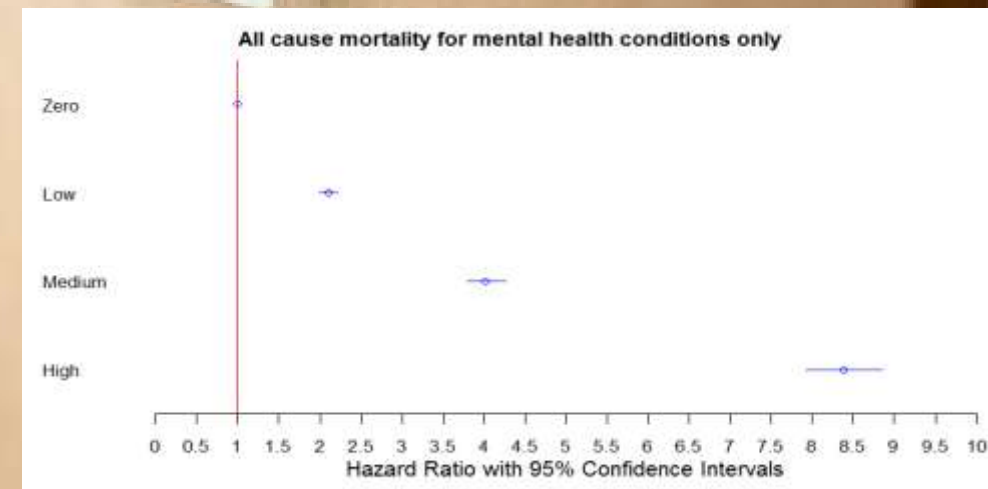
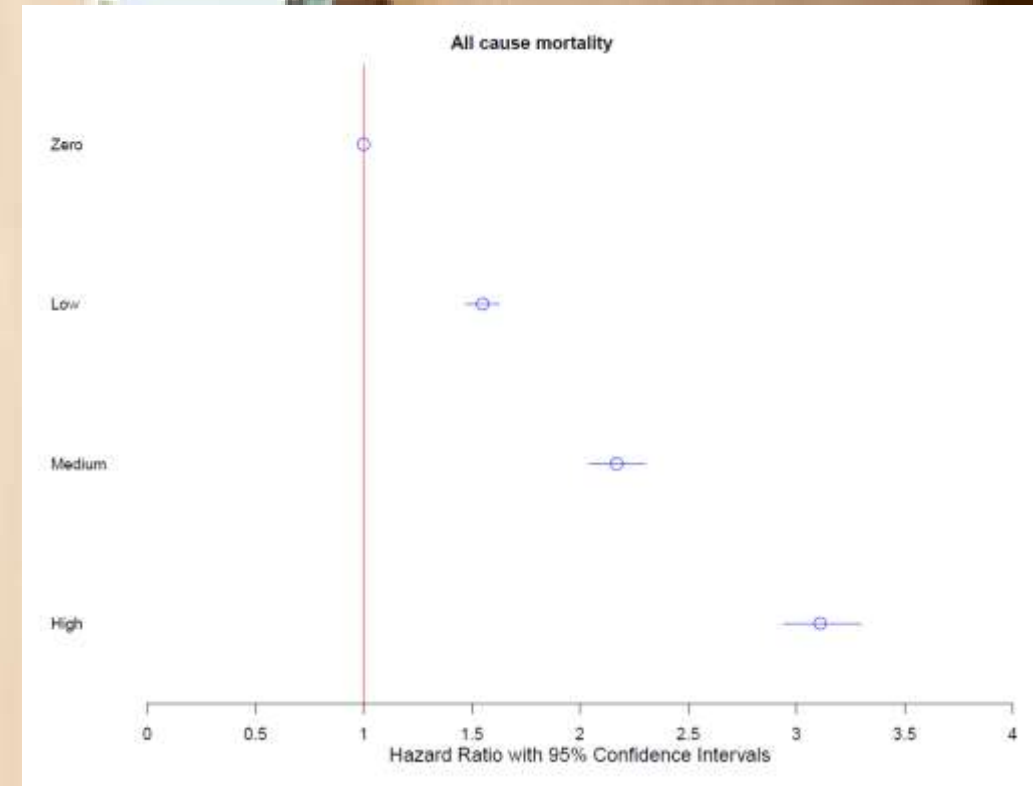
**46.0%** (212,155) missed one or more appointments

**19.0% (104,461)** missed more than two appointments

(Ellis, McQueenie et al Lancet Public Health 2017)



- **Patients** at high risk of missingness are characterized by poor health, higher treatment burden, complex social circumstances and have higher premature mortality (McQueenie et al BMC Medicine, 2019, Williamson et al Plos One 2021, Williamson et al BJGP Open 2020, McQueenie et al BMC Medicine 2021)
- **General practice appointment scheduling** and context is important (Ellis, McQueenie et al Lancet Public Health 2017)
- **Patterns of missingness persist across secondary care** outpatients and inpatient 'irregular discharges'; patients are NOT seen in ED instead (Williamson et al Plos One 2021)
- **Missingness is a strong risk marker for a poor outcome** so needs urgent attention from health service planners and practitioners





# Current Realist Research



**Dr Calum Lindsay, Dr David Baruffati, Prof. Geoff Wong, Prof Mhairi Mackenzie, Prof Sharon A. Simpson, Prof David E. Ellis, Michelle Major, Prof Kate O'Donnell, Prof Andrea E. Williamson**

**Acknowledgements: Elspeth Rae research administrator, Jack Brougham illustrator, research interview participants and Stakeholder Advisory Group members.**





# Problems with existing approaches



**Defining the problem:** an issue for services, caused by patients, contributing to waste and inefficiency.



**Exploring the problem:** little on causes; excluding some patient groups.



**Fixing the problem:** Simplistic solutions, flawed measures, recruitment issues. Not *who* they impact and *how* – and who is left out.



From a situational perspective → **a missingness lens.**



# What causes missingness?

## Methods:

- I. Realist literature review (197 papers)
- II. Interviews (61 participants)
- III. Stakeholder Advisory Group (16 participants)

*Broad range of clinical, social and inclusion health backgrounds*

Missingness caused by interaction between overlapping service- and patient-side drivers, shaped by wider structural context, enduring over time.



“I haven’t missed very many NHS appointments, but that’s through vast amounts of effort. All these factors interplay and [...] it’s surprising anyone ever gets outside the door because it’s all stacked against you.”  
(Sharon, Peer Support Worker, Inverclyde)



# What causes missingness? (Lindsay et al 2024)

- Patients not feeling the service is **‘for’ them**: necessary, helpful, appropriate, safe.
- **Past experiences**: mistreatment, poor communication, power imbalances, offers do not help/‘fit.’
- **Getting there**: travel, transport, space and place.



“you see yourself as one of the least deserving people, when somebody reaches their haund... [...] because you believe already that you don't deserve it, you arenae gonnae take the haund...”

(Jim, Glasgow)

# What causes missingness(2)? (Lindsay et al 2024)

**Access rules:** difficult to understand/navigate; gatekeeping; delay; inflexibility; errors/mistakes.

**Competing demands/limited resources:** appointments, work/money, relationships, survival

**Mistrust/distrust:** stigma, trauma, discrimination, mistreatment, misunderstanding, “easier” patients



“There’s a constant dynamic of conflict [...] and this is a theme you’ll find from anybody you speak to, who has a child or an adult with complex health needs, a constant fight. And some people, they get exhausted, and they give up, and I can’t blame them.” (Jodie, Glasgow)



# Applying a missingness lens

## The 'situational' model

Patient 'responsibilisation'



Shallow, monocausal perspective



Standardised approach to whole population



Technical solutions



Practical and logistical approaches



Biomedical models of healthcare



Single-service, resourceless approaches



Hierarchical, service-oriented solutions



## A missingness lens

**Services** commit to identifying/addressing barriers

**Complex causality** for individuals, in contexts

**Proportionate universalism** in prioritising resources.

**Relational responses** - empathy, relationships, communication.

Oriented around **safety** - structural, cultural, psychological

Incorporating SDH, poverty, marginalisation, broader view of health

**Collaborative approaches**, incentivised and **resourced**

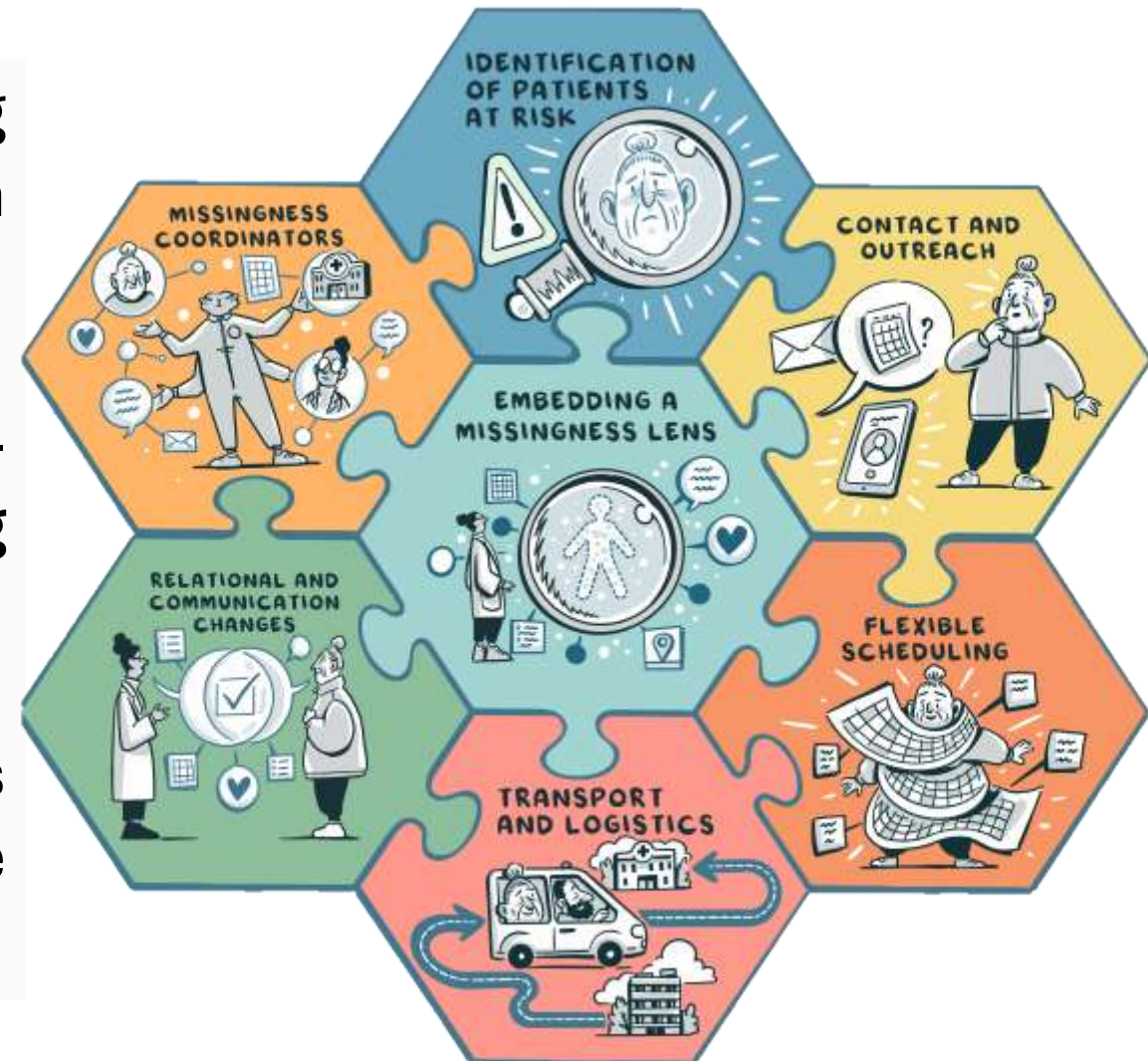
**Patient agency** - choice, empowerment and collaboration

# Our Interventions

Designed as a package of reinforcing activities, each building and depending on the others.

Implemented on a needs-led, patient-centred basis, oriented around **embedding a missingness lens**.

There are broader structural/policy issues that need to be tackled but these are beyond our scope.





**Wayfinding**, meeting broader needs, advocacy, coordination, *doing whatever is needed* among these interventions.

Attention to causes, solutions and local dynamics: staff development and support to create a positive approach to missingness; feedback, monitoring and accountability

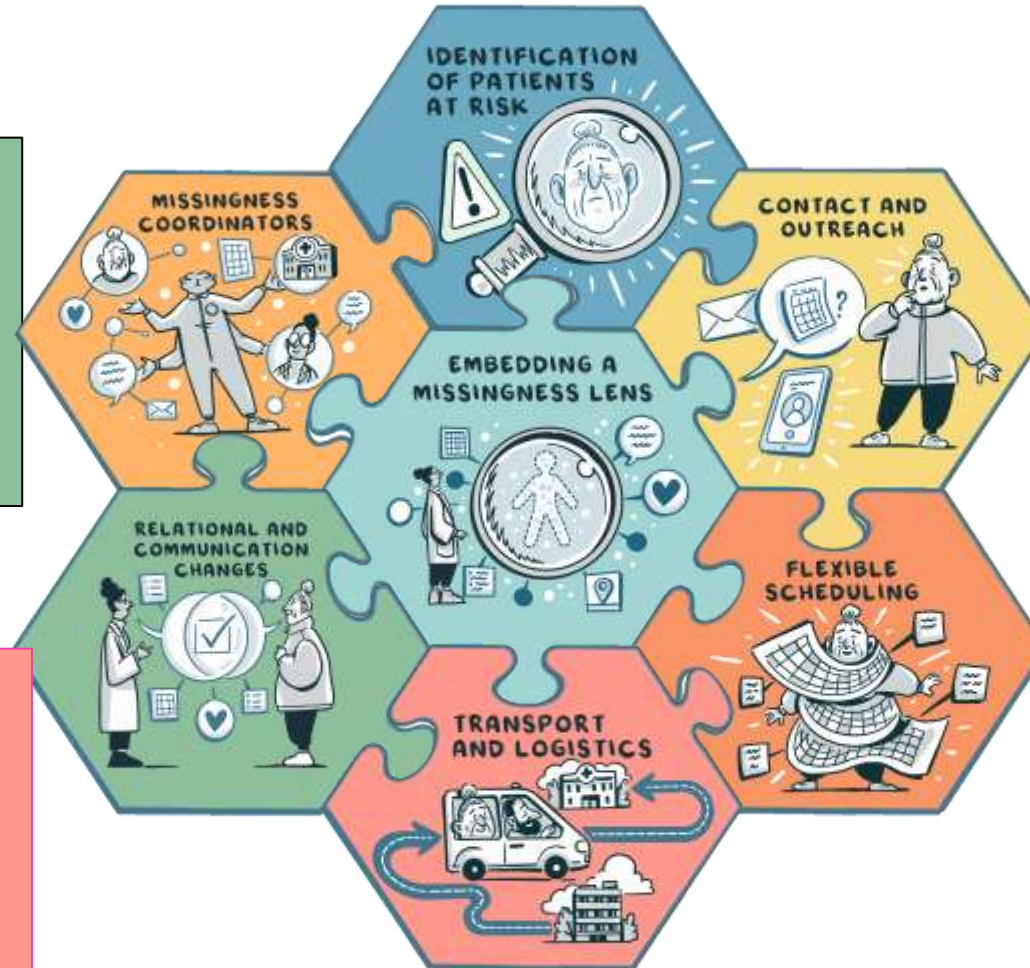
**Using multiple sources of knowledge**; identifying barriers, building relationships, assessing and recording key information. **Building a picture** – individual + collective.

Choice/continuity of staff; addressing comms needs and power dynamics; advocacy work.

**Contact before/after appts** – reminders; orientation; explore immediate barriers; offers of support; check-ins; offers of care.

**A stepped, needs-led approach:**  
Tickets/reimbursement -> taxis -> accompaniment.

**Prioritising 'missing' patients for different/flexible forms of access:** choice of when, where, how; longer appts/opening hours;



# Conclusions and next steps



- Missingness a strong risk factor for negative outcomes BUT has clear causes that can be addressed.
- Requires a perspective shift towards a ‘missingness’ lens, with a suite of interventions guided by these strong principles.
- **What’s next?** Finalising intervention design; opportunities for future piloting and development; dissemination and impact.



# Thank you!

Addressing missingness already? email our research team

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Further information about the research (papers, presentations, what we are doing now) can be found [here](#) on the Missingness Interventions, University of Glasgow webpage

