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PRE-RECORDED LIGHTNING TALKS

#13 - Facilitators and Barriers to the Implementation of a School-Based Intervention for Anxiety

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Country of residence
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Objectives/aims
School-based cognitive behavioural interventions for anxiety have been found to be effective, but there is a lack of research on their implementation in real world settings. The current study aimed to explore the facilitators and barriers to the implementation of a school-based intervention for anxiety through a mixed methods process evaluation.

Methods
Evaluation of the installation and initial implementation of Let's Introduce Anxiety Management (LIAM), a six-session school-based cognitive behavioural intervention, was conducted. LIAM was implemented by non-mental health professionals who were trained and coached by Child and Adolescent Clinical Psychologists. Qualitative data from fifteen semi-structured interviews with stakeholders (practitioners and managers) was analysed with grounded theory and framework analysis. Quantitative data was collected on the reach of the intervention.

Main findings
Forty-one practitioners were trained and coached on LIAM, with thirty-five children and young people receiving the intervention within the initial year of implementation. Themes emerging from interviews suggested barriers and facilitators to the implementation across different stakeholder levels. Facilitators that emerged across stakeholders included systemic collaboration and an enabling context while motivation and congruence emerged at the practitioner and school level. Self-efficacy and containment and encouragement emerged as facilitative only for practitioners while therapeutic engagement was facilitative to working with CYP and their parents/carers. The exclusivity of the intervention, lack of systemic understanding and transparency

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and demands or pressure on resources emerged barriers to implementation. Implementing school-based interventions is complex and requires the involvement of multiple stakeholders.

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#16 - Striving for Improved IPC Practice: Healthcare Workers' Struggles in Implementing Infection Prevention and Control Guidance in a Ugandan healthcare facility.

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Objectives/aims

Countries in the global south often adopt IPC guidance from WHO or CDC. However, such guidance is often underpinned by evidence from high-income countries. Therefore, there is a need to understand and generate evidence on the implementation of IPC guidance in low-middle countries. Therefore, this study explored the implementation of the WHO IPC guidance in Uganda and develop a theoretical explanation for the processes involved within this context

Methods

This study employed a qualitative research design based on the constructivist grounded theory research methodology (Charmaz, 2006). Individual interviews were conducted with 13 frontline health workers involved in implementing and applying IPC guidance at a tertiary hospital in Uganda.

Main findings

The main findings indicated that in trying to implement the WHO IPC guidance, HCWs go through a process of 'striving for improved practice', which consists of four phases; recognising the importance of IPC, playing a role, encountering challenges and overcoming challenges. However, they never quite come close to full implementation because of the organisational and individual challenges within these contexts. The theoretical code that explains this process is 'asymptote', which means coming close but not close enough. The findings also identify enabling factors within these contexts that facilitate implementation whilst revealing a high degree of improvisation among HCWs in ensuring the implementation and practice of IPC measures.

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#20 - Social Labs: Students' Experiences within an Innovative Approach to Social Work Practicum

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Objectives/aims
Social work as a practiced-based profession (Papouli, 2014) and the integration of fieldwork practicum is an essential part of social work education to help students integrate the theoretical and practical knowledge essential for them to become professional social workers (Caspersen & Smeby, 2021; Fortune & Abramson, 1993; Hemy et al., 2016). The paper's objective is to present and describe an intervention developed jointly by students and the community in the context of a Social Lab approach to fieldwork practicum and to describe the Social Lab approach as an indigenous strategy for social work practicum training in the African context.

Methods
The Social Labs approach to fieldwork practicum was adopted by the Makerere University Department of Social Work in lieu of the conventional approach where students are placed in social agencies. Undergraduate and Master's students were placed in two rural communities of Gulu and Luuka in Northern and Eastern Uganda for ten weeks. The social labs provided a space for students to apply theory by engaging stakeholders in the community to address complex social problems through the experimentation of solutions. Students were assimilated into the community and, for the duration of the placement, lived with the community and applied their theoretical knowledge to explore the community, engage with community leaders and members,

identify priority development issues, explore solutions with the community, identify community resources and support the community to implement identified solutions. A dialogue was held for students one month after they returned from the placement. To establish the sustainability of the solutions, a follow-up visit was conducted in one of the Social Lab sites in Northern Uganda three months after the students exited the community.

Main findings

The social labs allowed social work students to utilize the time allotted for fieldwork practicum for community mobilization and organization activities. In Awach Sub County, the students engaging with the community identified school retention as a critical problem. The leading cause of this problem was the inability to meet the financial costs associated with education. A community-saving scheme that targeted families with children at a local primary school was initiated in a series of community meetings. Parents were required to make weekly contributions of 0.256 dollars per child. The accumulation of these resources provided funding that enabled children to remain in school. Parents and school administrators used the funds generated through community efforts to meet the costs of retaining children in school. The follow-up visit established that the community has continued with the scheme, even after the exit of the students. The students participating in the Social Labs pilot scheme reported the superiority of the scheme over conventional placement; the Social Labs allows students the space to innovate and facilitate communities to design homegrown solutions. In addition to providing training opportunities for students, the approach provided solutions to community problems, creating a sense of accomplishment among the students.

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#28 - Understanding Government-employed Clinicians' Views of Barriers and Facilitators of Child Sexual Abuse Evaluation and Treatment Effectiveness and Adherence, in Government Health Facilities: A Case Study of Suleja, Niger State, Nigeria.

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Objectives/aims
A literature review revealed that unavailability of Child Sexual Abuse (CSA) clinical guidelines and unavailability of some CSA treatment services at health facilities in Nigeria may be barriers to evaluation and treatment adherence and effectiveness. However, studies on facilitators were not found and the studies on barriers may not be currently applicable (given the time that has passed since some of the studies were conducted). Additionally, the studies that exist employed methods which limit the credibility of their findings and focused on descriptions of barriers without an in-depth examination of why those barriers existed. More so, although evidence of other barriers identified across sub-Saharan Africa (e.g., ineffective coordination between care providers) were not found for Nigeria, there is evidence of these challenges within Nigerian health facilities, suggesting that they may be a challenge for CSA evaluation and treatment effectiveness and adherence.

Thus, this study will aim to investigate the barriers and facilitators of CSA evaluation and treatment effectiveness and adherence, in government health facilities, in Suleja, Niger State, Nigeria. This study will focus on clinicians' (e.g., doctors, nurses, and psychologists) views because although other participant groups such as CSA survivors and their caregivers may provide useful insights, including them in this study is not ethically or practically feasible. Additionally, this study will focus on clinicians because of their in-depth experience and understanding of clinician- and health facility-related factors influencing CSA evaluation and treatment effectiveness and adherence. Furthermore, this study will focus on government-employed clinicians and government health facilities because they are the main providers and source of healthcare services in Nigeria, respectively, thus a study focused on them should provide an adequate understanding of the topic and contribute to the transferability of findings. Lastly, this study will focus on Suleja because available data suggests it has the highest CSA prevalence in Nigeria (at 90-95%) hence the increased importance of understanding and addressing barriers and facilitators within that setting, to ensure quality and usefulness of CSA care, minimise survivors' trauma, and improve survivors' chances of recovery. Findings will inform propositions for practice, policy, and future research.

Methods
This study will employ a case study design and 16 to 24 purposively sampled government-employed clinicians in Suleja, Niger State, Nigeria, with experience in evaluation and treatment of CSA, in government health facilities, who consent to participate in the study, will be interviewed.

Main findings
Findings will inform propositions for practice, policy, and research. For example, one possible outcome of this study would be propositions for addressing identified barriers such as gaps in policy and clinical guidelines for evaluating and treating CSA. Similarly, propositions could be made for further research into the development of the guidelines, as well as the implementation strategies (e.g., training and supervision) required for successful introduction of the guidelines.

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#37 - Enhancing Engagement in a Digital Parenting Intervention for Adolescent Maltreatment Prevention in Tanzania: Insights from a Cluster-Randomized Factorial Optimization Trial

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Objectives/aims
Violence against children and adolescents is a pervasive global problem, but it is particularly acute in low- and middle-income countries (LMICs). Parenting interventions have shown promise in reducing violence and maltreatment, but in-person interventions are often expensive and inaccessible to at-risk families. Digital interventions present a scalable and cost-effective alternative, yet engaging families is a substantial implementation challenge. Using the Multiphase Optimisation Strategy (MOST) framework which consists of three phases: Preparation, Optimisation, Evaluation, we report the study design, implementation, and findings of an engagement optimisation trial of an open-source parenting app implemented in Tanzania.

Methods
Following a pre-post pilot study (2022) in rural and urban Tanzania, with *N* = 100 caregiver-adolescent dyads, an optimisation trial (2022-3) took place with *N* = 614 caregivers in peri-urban Tanzania. A 2x2x2 cluster-randomised factorial design was used to optimise engagement and retention. Sixteen clusters were randomised to one of eight experimental conditions consisting of any combination of three components (support: self-guided/moderated WhatsApp groups; app design: sequential workshops/non-sequential modules; digital literacy training: on/off).

Main findings
The study's sample consisted of 33.39% male and 66.61% female caregivers. The median retention duration was 31 days (95% CI 25-36), with no significant difference in retention based on caregiver gender (*p* = 0.6). Generalised linear mixed models showed that WhatsApp group support significantly increased engagement compared

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to the self-guided condition (incidence rate ratio [IRR] = 1.29, 95% CI [1.05, 1.58], *p* = .016). The non-sequential modular session design, which allowed participants greater freedom in programme order, also increased engagement compared to the sequential design (IRR = 0.71, 95% CI [0.61, 0.84], *p* < .001). The pre-programme digital literacy training significantly increased engagement, but only for older caregivers (IRR = 1.02, 95% CI [1.01, 1.02], p < .001). This is the first known trial for the optimisation of engagement and retention in a digital parenting intervention in a low- and middle-income country. Our findings provide valuable insights into the design and delivery of such programmes, guiding the development of evidence-based, scaled-up services. Findings will be used to inform the evaluation of the optimised app in a subsequent randomised controlled trial.

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#53 - Developmentally Supportive Care Practices in Preterm Infants Care in Low-Middle-Income Countries: A scoping review

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Objectives/aims
This review sought to examine facilitators and barriers to implementation of Developmentally Supportive Care (DSC) interventions: Kangaroo Mother Care (KMC), positioning (nesting and swaddling), control of noise, and light in the neonatal intensive care environment in low-middle-income countries.

Methods
A scoping review was conducted. Six databases, including; Ovid-Medline, Psych-Info, EMBASE, LILACS, Africa-Wide Information, and CINAHL, as well as grey literature were systematically searched between January 2000 to April 2020.Two independent reviewers screened retrieved papers based on a priori exclusion/inclusion criteria.

Main findings
A total of 15853 papers were retrieved. Thirty-two papers were included in the study. Thirty of the papers described KMC practices, and two papers described noise reduction strategies. Identified barriers to DSC implementation included: lack of knowledge of both health care workers and caregivers, existing cultural norms, and the absence of protocols and guidelines for practice. Facilitators included: healthcare worker training, leadership and support from health care facility managers to caregivers, and supportive infrastructure.

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Discussion
Identified published studies in low-middle-income countries primarily focussed on KMC and not the other recognized components of DSC; positioning and control of the neonatal intensive care environment despite its positive impact on preterm infant survival. Successful implementation of evidence-based practices, such as DSC, relies on examining the barriers and facilitators to the practice in order to improve uptake and sustainability. Therefore, further studies are needed on the implementation of the other components of DSC.

Keywords
Developmentally Supportive Care, Kangaroo Mother Care, Swaddling, Nesting, NICU, Preterm Infants, Noise/light control.

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#56 - Implementing the UK Standards for Public Involvement in community-based public health research. Exploring their benefit and limitations in a local context

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Background/Objectives/Aims

This talk explores the value and limitations of The UK Standards for Public Involvement for community-based and co-designed public health projects. We base our findings on an on-going project working with North and West Bristol Locality Partnership to design a set of community-based interventions in consultation with residents and collaboration with local voluntary organisations. This project aims to reduce the disparity in health outcomes between residents in areas of high and low deprivation in Bristol. Through this case study, we outline the challenges with implementing the best-practice guidelines on how to conduct patient and public participatory research, recommending how the guidelines can be developed so that they are more beneficial for implementation.

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The UK Standards for Public Involvement were published in 2017 through a UK-wide partnership between the NIHR, Chief Scientist Office and Health and Care Research Wales. They provide a “description of what good public involvement [in research] looks like and encourage approaches and behaviours that are the hallmark of good public involvement”.[1] The guidelines outline behaviours such as establishing “inclusive opportunities” for a range of groups and ensuring all partners are able to “work together”. These two themes are particularly important when it comes to co-designing research, since patient and/or public perspectives are often excluded from research planning or, if added, appear only tokenistically.

Despite the guidelines providing a great starting point for planning research that is committed to genuine co-design, there are two important lessons which we have learned through practice and through literature review that add nuance:

1) Context-dependency of inclusive opportunities

A research project that is committed to providing inclusive opportunities in the way that The Standards outline them will not necessarily lead to inclusive engagement from patient / public groups. This is because the inclusivity of opportunity for co-design is dependent on the “pre-existing foundations of engagement”[2] established in a particular place.

2) The co-design paradox

One of the central recommendations from the Standards is including patients /members of the public in core decision-making, such as deciding what to research and how. The co-design paradox challenges the implementation of this objective. In short, for genuine co-design to take place, community members need to be involved in every step of the decision making process; from deciding what is important to investigate right through to how to evaluate any subsequent interventions. However, without a clear research objective, researchers struggle to get community members to take part since their role and the possibilities are not well defined.

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We explore both of these lessons, discussing how they have come up in our work, and outline how we would modify the UK Standards to take these lessons into account, improving the power of The Standards as an implementation tool.

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#57 - Research impact framework development: A case study

Authors

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Abstract

Research institutes are continuously striving for impact. Many researchers and knowledge translation experts are using analytics and tools to measure impact in different ways. But how can you be systematic about your approach to understanding and driving impact? When can you claim you have had impact?

Our team at the Australian Institute of Family Studies strives to have a large-scale impact across the social and child welfare sector, through our research and knowledge translation activities. To understand and drive this impact, we have developed a research impact framework that reflects our impact goals, the activities we undertake to achieve impact, and indicators to measure impact.

Our presentation will provide an overview of the process we undertook to develop our research impact framework, including the various stages and tools we used:

- a survey and workshops to understand how researchers within the team conceptualise research impact, the development of a research impact definition and goals for our impact work;
- participatory workshops to gain buy-in amongst researchers on the use and importance of impact, and for obtaining insights on its relevance to their work;
- consultations with project leads and with a leading research impact expert to incorporate key elements into the framework;
- a review of different metrics, tools for data collection and existing frameworks, and subsequent application to our context.

Additionally, we will discuss learnings from the process of developing the framework, including what worked, what did not, and why. We will provide the audience with an opportunity to reflect on the tools and systems they could use to understand and measure the impact of their work, and how to communicate this to relevant external

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audiences. This presentation will acknowledge the complexities of impact measurement and explore how organisations can create a practical tool that can be used for program planning and ongoing evaluation of impact.

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#68 - Preconception Interventions and Risk factors Among Adolescents and Young Adults

Presenting Authors

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Background and Objective

Preconception health provides an opportunity to examine and address woman's health status and certain risk factors that can impact both her and her baby's health once she becomes pregnant. Currently, there is a lack of research on preconception health of adolescents and young adults and there is limited understanding about the factors which contribute to increasing number of adverse health outcomes. Thus, we aimed to identify and systematically explore preconception health interventions and risk factors on adolescents and young adults

Methods

We conducted a scoping review following the 2020 PRISMA guidelines by systemically populating the searches identified from online databases such as Medline, Embase, Cochrane Library etc.. We included studies looking at preconception risk factors and interventions among adolescents and young people and its impact on perinatal, maternal, and child outcomes. We included systematic reviews, scoping reviews, and overview of reviews published since year 2010. All the studies were screened for eligibility and data extraction; followed by a descriptive and thematic analysis.

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Main findings
We identified 77925 studies and after de-duplication a total of 71 studies were included in the review. The study identified several preconception risk factors such as substance use, overweight/obesity, domestic/sexual violence, infections, environment, and chronic diseases, and preconception interventions implemented at different levels such as psychological and genetic counselling, nutrition supplementation, lifestyle modification, and behavioral interventions. But majority of the available evidence was focused on teenage pregnancy, unintended pregnancy, contraception and its uptake. Preconception risk factors contributed to high risk of preterm birth, preeclampsia, gestational diabetes, congenital malformation, and neural tube or congenital heart defect. Interventions such as family planning services, women empowerment, psychological counselling, nutrition education, iron folic-acid supplementation, and pre-pregnancy diabetic care have contributed in improving these outcomes.

The study findings identified preconception health interventions and their impacts on perinatal, maternal, and child outcomes. It underscored the necessity for additional research on preconception risk factors and interventions in diverse contexts. The study also recommended prioritizing research strategies to improve health outcomes in low-income and conflict-affected regions. These findings have important policy implications for promoting public health interventions and guiding future research priorities.

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#71 - Status of respectful maternity care in India: A mixed method systematic review

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Objectives
Objective of this review is to identify the status and most common type of disrespect of maternity care among pregnant women in India.

Methods
A systematic review of several databases including PubMed, Google Scholar, Web of Science, and Scopus were used for the search, which was updated in May 2023 was carried out. Following quality review, PRISMA method followed

Main findings
There were ten cross-sectional studies, two mixed techniques studies, and three qualitative investigations. Eleven of the fourteen studies were hospital based, while three were community-based. The total number of participants in the trial was 6114. The sample size ranged from 41 to 2639 people. Interviews, observations, and focus group discussions were used.

Quantitative synthesis

Among total 14 studies, there were ten cross-sectional studies and two mixed method studies. Total prevalence of each research ranged from 20.9% to 100%.

Bhattacharya et.al., (2018)[13] explored the type of mistreatment among the women who seek institutional delivery from rural health facilities of North India reported that including improper money demands, which were common at 90.5%, the prevalence of any abusive behaviours was at 28.8%.

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Nawab et.al., (2019) [14]assessed prevalence and sociodemographic determinants among women residing in the rural population of North India. The study reported that 257 (84.3%) of the 305 women reported experiencing some sort of disrespect and abuse. Nonconfidential care (62.3%) and no consented services (71.1%) were the most common types.

Sharma et.al., (2022) [15]assessed mistreatment and quality of care among the mothers attainted tertiary care center in central India reported that almost 100% study participants experienced disrespectful care during their pregnancy journey. 103 persons (68.67%) noted the lack of physical comfort throughout the Intranatal stage.

Sudhinaraset et.al., (2016) conducted a mixed method study among the rural women of North India reported that the most typically reported behaviour is verbal abuse (28.6%), followed by a request for contributions or bribes (24.2%).

Sharma et.al., (2019) reported in both private and public institutions, there was a high incidence of not allowing a choice of delivering position (92%) and routine manual probing of the uterus (80%).

Qualitative synthesis

Rajbangshi et.al., (2022) reported that inadequate facilities, dirt, and a lack of medication. Women reported being abandoned during labour and being subjected to obstetric abuse in the labour room, and a lack of prompt care was identified as a key issue.

Study findings on the elements of disrespectful maternity care

Physical abuse and verbal abuse are the most common nature of disrespect reported in every studies. Studies [13,14,18–20] have reported physical and verbal abuse are the most common type of mistreatment among all zones of India. Verbal abuse using obnoxious or abusive words, making judgmental or accusing remarks, and threatening others with negative outcomes, withholding care.

The studies conducted in the rural health facilities of north India reported that non-consented care is the worst kind of abuse[14,19].

In operation theater the most common type of mistreatment was not administering anesthesia, delaying treatment and confinement in the facility. There were no curtains or screens, and the exposure was intolerable. According to two studies, unclean gloves, unsterile equipment, and unclean clothing were all used. However, multiple healthcare provider examines the women repeatedly[13,18,21].

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RMC during COVID-19 pandemic

Study conducted by Sharma et.al., (2022) conducted a study between October 2021 to March 2022 reported 100% of women encountered at least one type of disrespect [15].

Determinants of disrespect

The socioeconomic status, cast, religion, tribe played an important role behind the mistreatment among the pregnant women. Studies also reveled that time of admission, type of complications, type of health care provider and facility types are the important determinants of violence in health facility[13,18,23]

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#96 - Evaluating a real-world intervention for paediatricians to support ordering funded genomic tests

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Objectives/aims
Genomic testing can provide earlier diagnoses for children and families which may inform treatment and management decisions; and may offer important information for family planning and other relatives. Genomic tests have most commonly been completed after a child is referred by their paediatrician to a clinical genetics service and the testing is ordered by clinical geneticists. Families can experience long delays waiting for these clinical genetics department appointments. Medicare-rebatable genomic testing items are now available, which mean a paediatrician can directly order the genomic test for their eligible patients; medicare funding was intended to facilitate earlier access to testing and potential genetic diagnoses. Audits of use of these funded genomic tests by paediatricians, and anecdotal evidence from clinical genetic services, suggested paediatricians were not ordering genomic investigations for their patients at the expected rate and many were still referring patients to clinical genetics departments.

This study aims to support change for paediatrician-led funded genomic testing for children with syndromes that include clinical presentations of intellectual disability or global developmental delay by exploring with paediatricians barriers and enablers to their use of funded genomic tests; and to understand what interventions could support paediatricians to integrate funded genomic tests into their practice. This study developed a complex intervention and aims to evaluate impact on real-time paediatrician confidence to request genomic tests.

Methods
Telephone, 1-1 interviews were conducted with paediatricians, parents and clinical genetics health professionals. Encountered or anticipated barriers were elicited using

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a codebook developed from the domains and constructs of the theoretical domains framework. Enablers and intuitive strategies identified by participants were mapped to the barriers. A co-design approach was used to develop a complex intervention that addressed barriers and leveraged enablers. A series of workshops were held with the three stakeholder groups: cycle 1 revisited the barriers and suggested strategies to reduce or remove barriers, and established design principles for the intervention; cycle 2 reviewed the draft intervention against the design principles and discussed fit-for-purpose as well as the dissemination plan to raise awareness for paediatricians about the existence of the intervention.

Main findings

Key barriers from the interviews were that paediatricians: had low procedural knowledge required to order genomic sequencing; experienced low confidence to identify eligible patients; perceived ordering genomic tests as outside of or stretching the boundaries of their professional role; lacked the networks required to connect with a genetic expert to ask questions and have their test request approved; and, were short of time in appointments to adequately talk to families and organise the testing.

An intervention of a website was developed (paediatricgenomics.org.au) containing information and resources aimed at procedural knowledge and skill development; and a secondary consultation service (phone and email) with a genetics expert was established. Dissemination activities include presentations at paediatric conferences, organic and sponsored social media, department and organisation newsletters and circulation via networks of the project team.

Evaluation will focus on impact of the intervention over time on paediatrician confidence to request genomic testing for their patients; surveys will be sent to website users and qualitative interviews are planned. The genetic expert service will be evaluated by documenting contacts made and purpose for consultation. Website metrics are collected and will be mapped to dissemination activities.

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#101 - Formative research – a critical step to support guidance adoption

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Objectives/aims

Formative research is a critical step that informs the design of a context appropriate implementation of interventions to support guidance adoption. Epidemiological, attitudinal, behavioural or process data are often used to describe the clinical issue and identify factors that may influence practice. This abstract describes the steps and methods in formative research using asthma management in primary care as an example.

Methods

The Agency for Care Effectiveness conducts formative research in a 2-step process to iteratively generate information to guide the development of an intervention, from design to implementation. The initial step in the formative research process starts with a review of local and international literature, with the latter focusing on guideline recommendations. Analysis of data often ensue where epidemiological study designs are used when examining routinely collected data such as health outcomes whereas a grounded theory approach is used for qualitative data analysis to elicit practice-related norms, enablers or barriers. Findings from the literature review and analysis of data are triangulated and synthesised to inform the development and specification of interventions that support guidance adoption.

Main findings

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Based on the formative research process outlined above, the Agency for Care Effectiveness found 3 predominant knowledge and practice gaps related to ICS use, and they were:

1. Variable use of ICS among healthcare providers
2. Major shifts in evidence and guideline recommendations on ICS use in mild asthma and thereby the need to update healthcare providers
3. Patient inertia owing to adverse effects from ICS use

A complex intervention comprising of practice reminders, one-to-one educational visiting and materials was then developed with an aim to optimise long-term preventive treatment with inhaled corticosteroids (ICS) for asthma at primary care.

Knowledge or practice gaps identified from the formative research informed the development of the asthma programme in various aspects. First, gaps were mapped to the educational interventions as described by Cochrane Effective Practice and Organisation of Care with explicit links to the theoretical constructs and their mode of implementation, content, and mechanism of action. For example, the variable use of ICS and need to update healthcare providers on the shift in evidence and guidance recommendation were addressed through one-to-one educational visiting together with practice reminders on the use of key messages supporting the use of ICS to influence the cognitive and behavioural constructs that supports guidance adoption.

Findings from the formative research also indicated two critical elements to support guidance adoption in asthma and they were: (1) the need to inform healthcare providers on the considerations involved in personalisation of ICS use in relation to the guidance recommendations and (2) time constraint with patient education. These were accounted for in the development of the asthma programme with specifications on the key messages on ICS use through one-to-one educational visiting and the development of patient materials in print or online to ensure that the asthma educational programme goals are met.

Formative research is often key in implementation and often requires a mixed method approach that is iterative to be able to clearly inform and support the development and customisation of interventions that are contextualised to the practice setting.

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#108 - Beyond Crisis Services – Supporting Rangatahi/Young People in South Auckland, New Zealand: *Healing and Strengthening Insights for Action*

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Aotearoa/New Zealand

Objectives/aims
Our day-to-day mahi (work) is focused on building wellbeing systems that invest in the early years (0-5 years) of tamariki (children), together with their whaanau (families), to create protective and preventive ecologies of support (see Appendix 1) across South Auckland communities that address the impacts of colonisation. This requires working together to build strong foundations, embed enabling conditions and new ways of working, and apply action learning to secure meaningful and sustainable change across systems. The way services / systems currently respond, is power based, episodic, temporary, reactive and, at times, harmful. The purpose of this Healing and Strengthening work was to centralise Rangatahi (young people) alongside their whaanau (families) as an opportunity to learn about ways we (the system) can act that are also healing and strengthening for them alongside response. These insights help us to reorient our thinking and resourcing to healing and strengthening (alongside response) to do more of what whaanau tell us matter to them. The aims of this Healing and Strengthening work were to:

1. Gain an understanding of what healing and strengthening looks like for young people and whaanau and services (outside of and alongside response)
2. Map these healing and strengthening insights across the ecology of wellbeing (see Appendix 1)
3. Begin to understand how we might reorientate our efforts and create the conditions required to do more of the things rangatahi and whaanau tell us are healing and strengthening.

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4. Use these insights to inform cross-sector investment in healing and strengthening activities

Methods
To frame this work, we have drawn upon the Te Tokotoru and Ecology of Wellbeing models. These models[1] (see Appendix 1) have been developed using South Auckland whaanau voice, and are the models underpinning Te Aorerekura – The national strategy to eliminate family violence and sexual violence, 2021. As a wellbeing model, one of the opportunities Tokotoru creates as an intergenerational tool for equity, lies within the healing and strengthening domains.

Whaanau led interviews
Koorero shared from participants (rangatahi, whaanau, services and a South Auckland based Primary School (ages 5 to 10) School Principal). Healing and Strengthening questions/prompts were developed but in general koorero was whaanau-led. Where possible the words used by whaanau e.g., “cleansing”, “maturing”, “restoring” and “rejuvenating” were used, as for some people the word *healing* could be a potential trigger reminding them of the trauma they have endured.

Main findings
Koorero shared from participants (rangatahi, whaanau, services and school) described how deep levels of lived experience of trauma, isolation and episodic (crisis) response from agencies has impacted their lives and community. However, they were also very clear in articulating what had been, and what could be, healing and strengthening experiences for them (spanning activities, spaces, places, and people), and why they felt this way. Rangatahi were articulate and poetic in the way they described healing and strengthening concepts, emotions, and experiences. Their insights were straightforward, logical, and clearly expressed.

Six Healing insights and five Strengthening insights emerged. From these initial healing and strengthening insights a second level of insights, that describe the relationships between these primary insights, were identified.

From here we can look for the systems opportunities to apply, share and evolve the learning locally, regionally and nationally to support lasting change and contribute to building the “enduring social and cultural capital and infrastructure” that extends past services and response, towards healing and strengthening, grounded in place.

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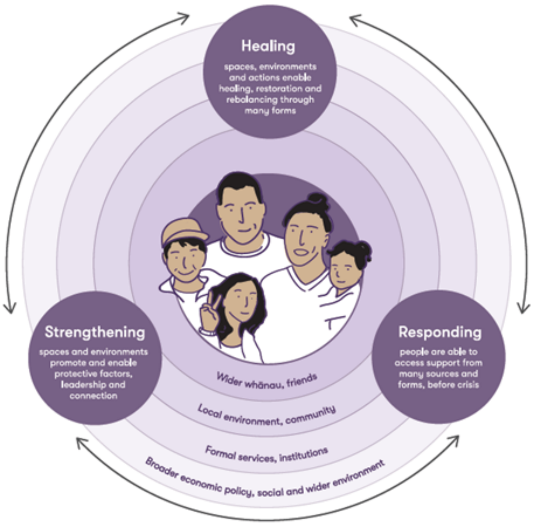
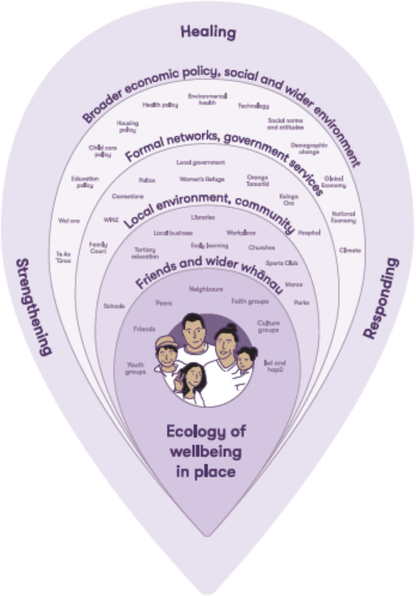
[1] Hagen, P., Tangaere, A., Beaton, S., Hadrup, A., Taniwha-Paoo, R., Te Whiu, D., (2021), Designing for equity and intergenerational wellbeing: Te Tokotoru, The Auckland Co-design Lab, The Southern Initiative.

Appendix 1



Te Tokotoru (Unbreakable Three)
A systems approach to wellbeing.



Understanding Tokotoru through the lens of the model—anchored in place

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#129 - Disability and Homelessness in the UK

Presenting Authors
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Emily Wertans

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University of Leicester, England

Country of residence
England

Objectives/aims

This oral presentation (likely online) will present key findings from a new report published by the Centre for Homelessness Impact on disability and homelessness in the UK. This submission is situated within the 'Disability Services' area of interest and is framed by Summit Theme 1: *'Some are more equal than others: Addressing inequalities through evidence and implementation'*.

This presentation aims to evidence how the intersection between disability and homelessness in the UK is at a critical high. Disabled people are at increased risk of experiencing homelessness and are over-represented in homeless populations across the UK. It will consider how disabled people experiencing homelessness are largely ignored or misunderstood by policy and service provision, and how they face significant barriers to exiting homelessness, often due to unsuitable and inaccessible support provision.

This presentation will consider initial evidence of interventions and support which may be beneficial for disabled people experiencing homelessness and outline recommendations for policy, practice, and future research.

Methods

This review paper is the first to collate statutory government data, from across the UK, on how many people qualify for homelessness support due to a disability. It also draws on research evidence to estimate levels of prevalence of disability, and individual disability types in homeless populations. This paper is supplemented by reports from those with lived and practical experience of disability and homelessness.

Main findings

- Across all countries of the UK with available data, disability was found to be overrepresented in homeless populations
- There is an upward trend in disability qualifying people for homelessness support, for example, between 2018 to 2022 in England, households accepted as homeless by reason of physical ill health or disability increased by 73%
- There are significant issues with the way UK governments record homelessness which mean the scale of the intersection between disability and homelessness is likely underestimated. A review of wider research suggests much higher prevalence rates for individual disability types. For example, autism is estimated to occur at between 12-18% in homeless populations in comparison to 1-2% of the general population
- There are a number of reasons why disabled people may be at increased risk of homelessness but one of the largest contributing factors is poverty. The poverty rate for disabled people is 32%, 12% higher than poverty rates in the general population. Disability employment rates of 53% remain significantly lower than the employment rate of the general population (83%)
- Disabled people face significant barriers to exiting homelessness. This report highlights 6 key themes which can prolong homelessness and prevent rehabilitation; Meeting a disability threshold, obtaining a diagnosis, inaccessible housing, unsuitable support provision, perpetuating factors, and diversity of need
- The research base for addressing these challenges is lacking, however, a review of academic evidence suggests a number of practical interventions and ways of working which show promise for alleviating homelessness for disabled people. These include: meeting needs through collaborative working, improving accessibility and suitability of housing and support provision, and adapting communication and outreach
- Recommendations from the report are framed by the understanding that addressing the culture of disability exclusion in the UK is critical for reducing risk of homelessness for this population. Specific recommendations are considered through the lens of three priority areas: pre-emptive action, response drive approaches, and addressing gaps in knowledge

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#133 - Connecting, building and using data for statewide child health equity in Queensland

Sub Theme: Some are more equal than others: Addressing inequalities through evidence and implementation

Presenting Authors
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Adrian Clutterbuck
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Country of Residence
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Objectives/aims:
Children's Health Queensland Hospital and Health Service (CHQ) is a statewide paediatric hospital and health service that provides the spectrum of care to the 1.3 million children and young people of Queensland, Australia. CHQ has invested in a population-health, data-driven approach to embed an equity lens into our service planning, provision and partnerships to respond to population growth, escalating service demands and heightened fiscal restraints. This lightening presentation will outline our six-year journey to develop and implement a bespoke and innovative population health intelligence platform that joins up and geospatially maps cross-sectorial data on children's wellbeing to enable targeted investment and planning decision making that responds to inequities.

Integration of place-based service planning has been a priority piece of work at Children's Health Queensland (CHQ) since 2018. The CHQ Population Health dashboard aligns with an intrinsic part of our Strategic Plan to ensure decisions are based on a real world understanding of what life is like for children, families and communities within our state.

The creation and implementation of CHQ's Population Health dashboard was generated from a need to collate a combination of data from over 15 disparate cross-

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agency sources into a central location and support the smooth transition from structured and pseudo-structured data formats to an interactive dashboard format. Use of this resource has grown over the past 6 years and our journey from a humble vision to the current version offers numerous learnings and opportunities to scale.

Methods

The CHQ population health dashboard has organically developed over six years of continuous improvement. Annual updates and upgrades are based on learnings and feedback from the prior 12 months to ensure the product remains functional and valuable for users. The platform incorporates data that aligns with the domains of health and wellbeing for children and youth, with data sets identified based on the indicators recommended in the ARACY (Australian Research Alliance for Children and Youth) 'Nest' framework.

Through targeted engagement, data related to child health, child safety, education, youth justice, police, social welfare and general demographics was sourced from over 15 data custodians. Some user design workshops supported the initial build, with continuous improvement based on iterative feedback. Learnings regarding systematic data gaps and opportunities for universal and targeted data collection related to children's health and wellbeing have been discovered through this process.

The current version of the dashboard allows users to explore child health and wellbeing indicators at a community level across the state of Queensland which supports statewide and regional planning and resource allocation. Of particular note is the platform's capacity to support equity-based investment and planning resultant from the inclusion of data regarding health service utilisation of Aboriginal and Torres Strait Islander children and youth as well as children and youth from regional and remote Queensland.

The CHQ population health dashboard has proven to be a valuable asset to inform CHQ's infrastructure and master planning, workforce planning, statewide service planning and financial/sustainability management. Furthermore, it's being used by CHQ's network of partners including other Government departments, NGO's and philanthropies to inform their planning and investment decisions. A secondary benefit that has been observed is the natural systemic integration that occurs when a common data base is used to make sense of the experience of children and inform decisions.

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Main findings
CHQ's experiences and learnings developing and implementing a bespoke population health and system leadership approach, including the development of a unique and innovative data platform and various place-based initiatives are relevant for any paediatric health service interested in evolving its role to be more proactive and preventative oriented. Learnings include the importance of an inspiring and inclusive narrative, a genuine approach to partnership, and access to contemporary data and research. CQH has also learned much about the specific operational conditions and workforce skills required to facilitate this work efficiently and effectively.

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#176 - Addressing inequality in higher education: case studies from a What Works centre in England

Presenting Author
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Centre for Transforming Access and Student Outcomes in Higher Education (TASO)

Country of residence
UK

Objectives/aims
In England your life chances are highly dependent on where you grew up, your personal characteristics and the resources you have available to you. This is illustrated by striking inequalities at the point of entry into university - for example, in 2021 28% of young people from the poorest households entered higher education, compared to 47% of richer applicants. These inequalities are also apparent across a range of other demographic characteristics (such as ethnicity and gender) and appear when we look at the attainment of students on their course, and how likely they are to get a good job when they graduate.

The Centre for Transforming Access and Student Outcomes in Higher Education (TASO) is an independent charity and part of the UK government's What Works network. TASO uses evidence to improve the design and delivery of public services and was established to help eliminate inequality in higher education, from the point of entry, through to labour market outcomes.

In this panel discussion we will explore how TASO is helping to identify practice which is most effective in addressing these inequalities. We will shine a light on how we are working with a number of universities to pioneer the production of more rigorous impact evaluation, including randomised controlled trials (RCT) and quasi-experimental approaches.

Methods
In this oral presentation session you will hear about case studies of TASO working with universities to develop more robust evidence on the impact of their activities.

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Specific projects include a large-scale RCT of university summer schools - a common activity used to widen participation in higher education. TASO initiated this multi-site, multi-wave RCT to try to build a more robust evidence-base on the causal impact of this approach and to drive more collaborative work between universities on this topic.

Looking at what happens after students enter university, TASO has conducted nimble RCTs on how well interventions using learner analytics data (i.e. data about how well students are engaging in their courses) can help students remain on-track in their studies. We have also commissioned quasi-experimental analysis of interventions designed to close ethnicity degree awarding gaps (the significant difference in the proportions of Black, Asian and minority ethnic students being awarded a first or upper-second class undergraduate degree when compared to White students).

Main findings
In our presentation we will outline how we went about running the projects outlined above. We will discuss the specific results of these projects but also broader reflections on the challenges and opportunities we encounter in these sorts of projects. Specifically we will reflect on: the regulatory incentives for universities to invest in evaluation; methodological challenges in measuring outcomes and demonstrating impact; and more practical considerations around how we effectively engage with the higher education community in England.

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#180 - Implementation strategies to lower in-hospital fall rate: A systematic review

Presenting Author
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Country of residence
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Objectives/aims
Patient falls are the most reported adverse event in hospitals, ranging from 1.4 to 18.2 falls per 1000 patient days. Implementation of the current fall prevention interventions (FPI) for hospitalized adults are mostly effective in lowering fall rates with varying effects. From the perspective of implementation, it is important how implementation strategies are developed and evaluated. The aim of this systematic review is to explore what strategies are used to implement FPIs, how these strategies are operationalised and, if possible, what their impact is on fall rates.

Methods
Embase, Medline (Ovid), Web of Science, CINAHL EBSCO, Cochrane CENTRAL, and PsycINFO databases were searched till January 2023 for studies reporting the implementation of FPIs in hospitalized adults. Studies were eligible if they reported at least one implementation strategy and had a control group (randomized or not; e.g. before-after studies). The primary outcome was the classification and degree of operationalisation of the used implementation strategies. Secondary outcomes were the fall rate per 1000 patient-days, health care professionals' adherence to FPIs, and the costs. Two reviewers independently performed the search, screening, data extraction and syntheses (according to PRISMA 2020 checklist). The implementation strategies were classified using the Expert Recommendations for Implementing Change (ERIC) taxonomy categories and strategies (Waltz et al.). The operationalisation of the strategies was assessed with the seven prerequisites of Proctor et al (2013).

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Main findings

From 14,869 initial records, 45 records were included. A total of 333 strategies were extracted, all included studies at least used an implementation strategy from the category ‘Train and educate stakeholders’ (Waltz et al. 2015). The median number of implementation strategies per study-site was six. The median number of described prerequisites of Proctor was 2 (IQR 1-3), for all strategies the action was described. The other prerequisites were less frequently reported, we were able to determine the actor (48%), temporality (35%), action target (32%), justification (19%), dose (12%) or implementation outcome affected (5%).
The median fall rate per 1000 patient-days before implementation was 3.7 (IQR 2.5-6.1), after the implementation the median was 2.6 (IQR 1.4-4.1). Eighteen studies provided information regarding adherence to FPI, with a median rate of 65% (IQR 29 – 87). Three studies reported about the costs, stating that the implementation would result in cost savings from $10,000 up to $406,000,000.

We found that the operationalisation of implementation strategies is lacking in most published studies. Researchers are expected to provide complete information about the used implementation strategies so that others can assess their effectiveness, for instance by using the prerequisites from Proctor (2013). The lack of clear reporting on these prerequisites prevents the field of implementation science from achieving high scientific rigor in the process of selecting, executing and evaluating implementation strategies.

In conclusion, the lack of detailed description of implementation strategies, although several reporting guidelines have been published, hinders researchers to learn from and reproduce findings, and prevents clinicians to guide their own implementation projects.

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#183 - Tailoring in the wild: Preliminary findings from a study to support improvements in diabetes care

Presenting Author
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Objectives/aims
For evidence to be impactful, it needs to be transportable across contexts. One route to achieving this is to provide interventions that support recipients to tailor their response to their local circumstances (Albers, Metz and Burke, 2020). The current study describes supported tailoring work undertaken by healthcare teams to address gaps in diabetes care.

Insulin pump therapy is recommended for the treatment of patients with Type 1 Diabetes and an HbA1c above 69mmol/mol (National Diabetes Audit (NDA), 2021). There are about 90,000 patients in England and Wales that meet these criteria but who do not currently use an insulin pump (NDA, no date). Use of insulin pump therapy also varies significantly by deprivation, ethnicity, sex, and location (NDA, 2021). Staff and local organisational factors have an important role in this variation (Llewellyn *et al.,* 2014).

We previously developed and explored the feasibility of an intervention to support teams to tailor their response to national audit feedback (Sykes *et al.,* 2022). The intervention is a form of Quality Improvement Collaborative (QIC), which is delivered virtually. We invited diabetes services from across England and Wales to participate in a study evaluating the effectiveness of a QIC provided alongside feedback from the NDA to increase the use of insulin pumps. The NDA aims to improve diabetes care by supporting services to assess their care provision in comparison to other organisations and national benchmarks, identify areas for improvement and identify and share best practice (NDA, 2023). The provision of a QIC aligned to this audit seeks to support services to respond more effectively to feedback within their own local contexts, to improve quality of care for diabetes patients.

The QIC resonates with organisational readiness for change theory (Weiner, 2009) by supporting diabetes specialist teams to gain organisational commitment for improvement actions, which are specifically tailored to local influences on care provision. To identify influences upon performance, the QIC supports clinical teams to use the Theoretical Domains Framework (TDF) (Atkins *et al.,* 2017). To align improvement strategies to these influences, the clinical teams are further supported to undertake a virtual logic model exercise.

We aim to describe how teams undertake this tailoring work, the opportunities virtual working provides to gain insights into how teams enact tailoring, and the implications for others seeking to support healthcare teams to tailor their improvement actions to local circumstances.

Methods

39 specialist diabetes teams from across England and Wales took part in the study. Observations of virtual workshops and multisite calls (36 hours), documentary analysis (n=78) and semi-structured interviews (n=7) with recipients explored how teams undertake tailoring work. We categorised the selected and enacted improvement actions using the Expert Recommendations for Implementing Change (ERIC) (Powell *et al.,* 2015) and described how these strategies were aligned to the TDF influences (Atkins *et al.,* 2017) by the healthcare practitioners.

Main findings

Preliminary findings describe the relationships between the diabetes care pathway, identified influences and proposed improvement strategies. Influences relate to patient (e.g., skills), staff (e.g., motivation) and contextual factors (e.g., environmental context). Proposed strategies included actions related to the implementation of improvement work, educating healthcare professionals and patients, restructuring existing work, and strategies for quality management. We will describe how teams undertake this work and how proposed improvement strategies evolved into enacted strategies.

Supporting teams to tailor improvement actions to local circumstances can address context in real-world settings. We will draw conclusions about how teams undertake this work, which influences they identified and how they aligned these influences to implementation strategies. We will describe lessons from our work leveraging the opportunities offered by virtual ways of working to make tailoring in the wild more observable.

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#185 -The Role of "Change Champions" in Creating Change in Climate-related Food Insecurity in Northern Communities

Presenting Author
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University of Ottawa

Country of residence
Canada

Objectives/aims

Climate-related food insecurity (CRFI) is a significant threat to Indigenous Peoples due to high food prices, lack of traditional foods, and income constraints. Many public policies do not address food system-related problems as being interconnected to climate change. Change Champions (CCs) can help policy become standard practice; however, there is a gap in understanding how CCs are being used to facilitate transformative action on CRFI in the North. This study explores how CCs are being leveraged and resourced by policymakers to mobilize action to increase food security in Indigenous communities in the North. This project has three objectives: (1) Describes CCs among Indigenous community leaders in the North, and how their roles, supports, and desired outcomes are portrayed in policy; (2) Seeks to understand the experiences of CCs working to operationalize action on CRFI in the North (e.g., community health representatives, cooking circle leaders, health centre physicians/nurses, etc.); and (3) Identifies strategic opportunities for intersectoral/cross-jurisdictional collaboration/knowledge exchange where Northern CCs co-design strategies to better leverage public policy as a tool to mobilize action on food insecurity. Drawing on change management theory, this study will look at the role of “change champions” (CC) in the North and how public policy connecting climate-related food insecurity and health can be better used to support these influencers in mobilizing action through food security education and programming.

Methods

Using an action research approach, this study will be cyclical in three phases: *look*, *think*, and *act*. Phase 1. A comparative content analysis of recent and

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relevant public policies on climate-related food insecurity to identify and describe who decisionmakers see as change champions working in the Canadian North. Concurrently, using an adapted Sharing Circle interview methodology we will undertake semi-structured interviews with change champions to understand their experiences as mobilizers of climate action related to food insecurity and health. Phase 2. A half-day deliberative dialogue co-design workshop to reflect on Phase 1 findings and brainstorm how change champions can be more successful in influencing action on climate-related food insecurity in their communities, including what support they need from federal and provincial/territorial government policymakers. Phase 3. Draw on data from Phases 1 and 2 to create a diverse knowledge mobilization strategy with outcomes targeted at different scales of government (e.g., federal, provincial/territorial, regional, community corporations). This project will be led by a postdoctoral fellow with expertise in policy analysis and qualitative research in food security and health equity, alongside Indigenous scholars, clinicians, academics, policymakers, and public health practitioners. The public health and climate change interventions opportunity emphasizes the importance of evidence-based action informed by Indigenous partners. We will collaborate with Indigenous community partners to co-design policy options. This project will follow the First Nations Principles of OCAP® through co-designing and collaborating with Indigenous partners on all project elements.

Main findings
This study will generate evidence on the lived experiences of public health champions and Indigenous community leaders engaged in tackling climate-related food insecurity in Canada's North. We will propose policy options to inform national and provincial/territorial decision-makers on how to support Northern CC with community level action. Our recommendations will target the regional governance and community corporation levels to inform support for local CC. Collaboration with key public health and Indigenous community champions will help to influence system-related programming and education initiatives on food insecurity issues.

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#187 - Examining the research-policy nexus in Sri Lanka: Whose evidence informs education policy and under what conditions?

Presenting Author
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United Kingdom

Objectives/aims

The General Education Sector Development Plan (2020-2025) in Sri Lanka calls for enhanced evidence-informed policymaking and greater linkages between research, policy, and practice. While literature on strategies for researchers to effectively communicate and engage with complex policymaking processes has flourished over the past few decades, critical questions remain about the opportunities researchers have in doing so, whose voices end up being heard and under what conditions. Speaking to a diverse sample of education researchers at foreign institutions, this study attempts to respond to recommendations from critical scholars to move the needle on evidence-informed policymaking and capture contextual nuances within this field of study, with a view to strengthen evidence-informed policymaking in Sri Lanka. The study asks: How do foreign researchers influence education policy in Sri Lanka? Whose voices are heard, and what strategies do they employ?

Methods

As part of my MPhil Dissertation project, I conduct virtual, in-depth interviews with six education researchers to understand their experience of policy interfacing in Sri Lanka. Participants were identified through a mapping exercise of the scholars and research institutes conducting formal research on the Sri Lankan education context using online search engines to locate relevant research outputs. Educational research was broadly defined and not limited to any areas. Due to ethics and time-constraints, I was restricted to sampling academics affiliated with non-Sri Lankan universities or organisations, which is the biggest drawback of the present study.

The first 30 minutes of the interview were dedicated to understanding academics' experiences of research and policy interfacing in Sri Lanka. In the final 15 minutes, participants were presented with a quantitative data example to elicit situationally grounded suggestions on how a researcher might attempt to present the data to a

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policymaker. Interview transcripts were coded for themes through thematic analysis in NVivo.

Main findings

Interviews with academics reveal that policy engagement is a time- and resource-intensive process often only possible for those who possess the credibility, social, and financial capital required to be viewed as an ‘insider’ by decision-makers. Some participants expressed that insider status is innately gained through a researchers’ socioeconomic positioning and network. Other accounts showed that insider status can be achieved through long-term engagement with local researchers and policymakers to build trust, though it should be noted that this is often a function of careful negotiation and relationship-building that seeks to effect change incrementally. However, opportunities for engagement exist, with researchers highlighting several examples that point to a vibrant knowledge-sharing community and culture. While more research is needed to capture the perceptions of academics and other stakeholders currently operating within the institutional context of Sri Lanka, findings from this small-scale study suggest that while there is potential for the education system to benefit from collaboration between researchers and policymakers, systemic processes are needed to ensure that it is effective, sustainable, and equitable.

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#194 - Including the voices of people living with dementia and family carers in health services delivery

Presenting Author
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Objectives/aims

It is broadly accepted that people who are directly impacted by research should have their voices represented in that research, however some groups are considered difficult to authentically engage due to practical and ethical issues. People living with dementia are significantly underrepresented in dementia research, and this impacts the suitability of healthcare delivery for this group. Wesley Research Institute seeks to address this by developing and using evidence-based methods for authentic research participation and championing the importance of consumer voice in health services research.

Dementia in-home respite offers a unique opportunity to support family carers and people living with dementia to remain living in their own home, a wish that is universal. Hearing the voices of consumers can be difficult when associated with a service or organisation who has power and control over service delivery and processes. Consumers can be hesitant in sharing feedback, considering possible repercussions to their service and support. This study aims to inform the implementation and delivery of the in-home respite service by integrating the perspectives, wishes, and experiences of consumers into the program.

Methods

Qualitative focus groups and interviews with people living with dementia and their carers were conducted in Toowoomba, Gold Coast and Beaudesert in South-East

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Queensland, and analysis was informed by the Consolidated Framework for Implementation Research (Damschroder et al., 2009).

Practical measures were adopted to create an inclusive, safe environment including providing simple, plain, easy-read written information, and a preliminary phone call to participants to respond to any questions or concerns prior to the focus group. At the focus group, a brief introduction to the research project was given to participants, allowing for time to ask any questions and clarify any considerations. The room was set-up to create a welcoming space. Smaller tables were used, to create a more intimate setting, and morning tea was provided. Upon entry, after introductions, tea and coffee was offered adding another element of hospitality to create an informal respectful environment. Flexibility was in-built into the data collection process, with interviews being offered over the phone, on zoom and face to face in a place of their choosing, with or without audio recording. Participants could take breaks at any time and could choose to answer or not answer any questions they were comfortable with. Focus groups and interviews were flexible with researchers scheduling greater time, allowing for more time for breaks, questions and importantly pauses for participants to stop and reflect before answering or sharing examples.

Main findings

People living with dementia and their carers were able to participate in the study in a manner that respected their needs and preferences, developed trust and rapport, and enabled open discussion. This led to important disclosures with direct relevance to the design of the respite service. Consumers shared the importance of having regular, empathetic and consistent staff entering the home. Furthermore, staff suitability was noted, staff being a ‘good match’ with clients e.g., similar taste in music or activities. The opportunity to train staff and give feedback was also important to consumers. Establishing a comfortable environment at the beginning of engagements creates a dynamic where participants share more freely and openly. Showing the importance of rapport and a relationship-focused approach so participants can trust researchers. The skillset and experience of researchers is important in this approach. Self-disclosure about researchers’ backgrounds and experience can help build rapport. Ongoing critical reflection of ways to build upon approaches is important within the team to enhance and learn from each interaction with participants.

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#195 - How to support equity through inclusive research with people living with dementia.

Presenting Author
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Country of residence
Australia

Objectives/aims
With the ageing population, the number of people living with dementia is set to increase accordingly. Having the choice to stay living in one's home and community for as long as possible is a desire of people living with dementia. Yet for many, this is not a reality, due to lack of appropriate support, unsuitable housing and built environments, social exclusion and stigma. The global movement of Dementia Friendly Communities aims to address such barriers and bring about positive change. At the local place-based level, Dementia Friendly Community initiatives are typically planned and implemented by committees, yet little is known about how they operate to enact Dementia Friendly Community principles. Therefore, the research objective was to identify how people experience the implementation of Dementia Friendly Community principles and micro-processes in locally based Dementia Friendly Community committees. The overarching aim was to understand how Dementia Friendly Communities are created locally, identifying the challenges, benefits, and key learnings from committees.

Methods
Interpretive Enquiry framed this micro-ethnographic research study. Two Australian, Dementia Friendly Community (DFC) committees and their activities were studied to better understand implementation at the local level. Three methods were utilised, semi-structured interviews, participant observation and field notes. Committees' goals, approaches and tensions were observed over five months (September 2019 to January 2020).

Methods were flexible to meet people where they are, in a person-centered and empowering way. The location where interviews took place were also chosen by

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participants in an active approach to hand over power to participants. Participants were also welcome to pass on questions they were not comfortable with and take a break at any time. If it was not a good day for people, then interviews could be rescheduled or shortened.

To support equality there is a need to critically reflect on the current system research operates within, where there is an embedded bias and paternalistic element which influences and reinforces one another. Ethics approval was obtained from Queensland University of Technology (approval number: 1900000311).

Main Findings

Some are more equal than others- intrinsic in this statement is the assumption that people and their circumstances are unequal and inequitable. This project immediately recognised the imbalance of power and circumstances in local committees. Key findings were that people living with dementia were not present in committees, when a foundational principle for Dementia Friendly Communities is the need to have people living with dementia leading initiatives. Committees had aspirational goals but were faced with real world systemic barriers. Ageism, paternalism, stigma and ableism embedded in wider societal and cultural contexts showed how priorities and tensions exist locally.

To shift inequality and inequity, people need to have the opportunity for their voices to be heard on an equal basis to others. People with lived experience are the experts in their own lives, acknowledging this and facilitating opportunities for experiences to be heard enriches research, policy and practice. Locally it was shown how people living with dementia could effectively engage when approaches were flexible and inclusive. For example, meeting at a local café, in an informal environment with a small number of people. The smaller group was also facilitated by a person living with dementia and carer further adding a dynamic to increase rapport and trust.

As researchers, the systemic social and cultural influences that frame our ontological and epistemological perspectives need critical reflection. Critical reflection can be the first step towards shifting power to empower vulnerable groups in society to be heard and treated on equal ground.

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#216 - What factors create a good general practice consultation from the perspective of low socioeconomic patients?

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Objectives/aims
Recent Australian national surveys have shown that fewer low-income patients report a good consultation experience compared to those in higher income groups. However, there is a gap in knowledge on what low-income patients consider a good consultation experience. Our aim was to determine the GP and consultation factors that patients from low-income groups perceive as essential for creating a good consultation experience.

Methods
We performed a qualitative interview study of patients from low-income groups who reflected on a video recording of their general practice consultation. An appreciative enquiry approach was used in the design and analysis. Exemplar GPs were recruited using a modified Dilman method alongside the dissemination of invitations for participation via social media. For consenting GPs, we then visited their practices to invite patients to have their consultation video-recorded. Following the video-recording of the consultations, patients filled out a paper-based survey about their experience with the GP. Patients who met the demographic and patient experience criteria were eligible to be interviewed. Eligibility criteria included self-reported low-income and having a chronic health condition alongside reporting that they felt listened to,

respected and having been given adequate time with their GP. Interviews involved patients viewing their recorded consultation and providing commentary on their experience to the researcher. Interviews were transcribed verbatim. Inductive thematic coding was performed by two independent researchers. Coding occurred independently and the finalisation of key categories and codes occurred through an iterative approach to data analysis with the broader team of researchers.

Main findings
There were four GPs involved in this research study (50% female), all were aged 45 years and older with extensive clinical experience. Video-recordings at their clinics occurred during the lockdown restrictions in Melbourne. Hence, in these videos everyone was masked and sitting on chairs distanced apart. We then interviewed nine patients who were low-income with complex health conditions. These patients ranged between 25-84 years in age, with 77% having navigated a chronic health condition for over five years.

We developed four main categories about what cultivates a good GP consultation from the perspective of patients from a low-income group: (1) the doctor's demeanor and the patient's feelings, (2) the therapeutic relationship, (3) the doctor's therapeutic skill set and (4) communication techniques.

By interviewing patients whilst they watched video-recordings of a consultation with their GP, we were able to demonstrate the importance of continuity of care and the therapeutic relationship. Interviewees reflected on their experiences with the GP and did not isolate their discussion to the single recorded consultation. In this they emphasised factors that are demonstrated and reinforced over time between a doctor and patient. Specifically, patients reported that a GP's personal characteristics and communication skills were critical for a positive experience, rather than necessarily improvements in health outcomes.

Given the centrality of patient satisfaction in healthcare engagement and health outcomes, our results highlight the high level of interpersonal and communication skills needed by GPs, particularly those working in areas of deprivation. This includes empathetic care alongside verbal and non-verbal communication techniques. For new implementation strategies and complex interventions in primary care, these high level communication factors could be used to assist in reducing the established inequities in healthcare access and health outcomes for those in low-SES groups.

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#234 - Factors influencing implementation of integrated physical and psychological care models: systematic scoping review

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Objectives/aims
Many medical conditions can have associated comorbidities, including mental health conditions and disorders such as anxiety and depression. Multimorbidity can have a significant psychological impact on people experiencing both physical and mental health conditions, which may also impact their disease progression. Health services increasingly recognise the importance of addressing not only the physical health needs of patients but also their psychological and emotional well-being to provide a more holistic approach to care.

Historically siloed care delivery has resulted in a gap in care provision for some populations with co-morbid conditions. By integrating physical and psychological care services, healthcare providers can ensure that people receive comprehensive and coordinated care. However the implementation of integrated care services has proceeded slowly and there has been little research on the contextual aspects of implementation successes and failures.

The aim of this scoping review was to identify the factors influencing the implementation of integrated physical and psychological care services or models, in hospital and comparable acute settings. The objective is to map the available topic relevant research activity providing an overview of what helps and hinders their implementation.

Methods
We conducted a systematic scoping review in line with the Joanna Briggs Institute (JBI) scoping review guidance (Peters et al., 2020) and the principles set out by Arksey

and O'Malley (2005) and Levac et al., (2010). We took an iterative approach to optimise the review design and the updated search was repeated following the same JBI principles previously applied. To assist with the identification of studies the Problem, Concept and Context (PCC) Framework was used to focus the review. Double screening of the identified literature was conducted.

The data extraction tables were informed by the JBI Manual for Evidence Synthesis (Peters et al., 2020). Screening and data extraction were discussed with multiple reviewers. A narrative synthesis of the quantitative and qualitative literature was conducted. The process was informed by the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al., 2009) as it allows for the organisation of findings across studies and supports the synthesis of knowledge to build context and understanding.

Main findings

81 papers met the criteria and were included in the review. Included papers supported the identification of the different ways that the integrated interventions are categorised, the types of implementation strategies used when designing and delivering services and the challenges faced by implementers including barriers and facilitators to implementation. The language used to describe these factors varied across the papers and this reflects challenges with describing and identifying the implementation of integrated care in the field. Across the included papers, Implementation Science theories, models and frameworks were not significantly described in the research design or analysis. While Implementation Science draws on multiple disciplines and fields to include myriad sources of evidence, the historic variation in terminology used to describe similar concepts, poses challenges for the culmination of knowledge around effective implementation.

CFIR supported the exploration of key concepts from the literature, with specific constructs including: Patient Needs and Resources, Culture, Implementation Climate and Planning, emerging as key components of implementation. A common theme across the majority of studies was the need for supportive infrastructure to enable successful implementation. Identifying the needs of the population, particularly to fill the gap in integrated physical and psychological or holistic care, is a notable driver to design the model or service, however the need alone isn't enough to foster successful implementation. Resource was identified as key component to enable implementers to engage organisational decision-makers and this was one factor that affected the compatibility of the integrated model into the local organisational infrastructure. Leadership engagement is vital to ensure allocation of resource and adequate

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planning to support staff to deliver patient focused care. The culture of individuals and the organisation play a pivotal role when considering integrated care. Historically the siloed delivery of mental and physical healthcare has resulted in very different approaches to thinking about how to treat and support people with multi-morbidity and also how to deliver care for this population. This creates challenges for the delivery of holistic care, however there are methods to support staff to consider different approaches, including staff training and psychoeducation. It was clear from the included studies, that these are complex processes that require, comprehensive planning, key staff engagement and supportive, adaptive methods of service delivery, to support sustainment. These findings have important implications for situations in which the implementation of models of care is done without appropriate structure or assessment.

This review provides an overview of the research activity relating to the implementation of integrated physical and psychological care services and models, in hospital and acute settings. These findings enable a more in-depth understanding of factors influencing implementation to provide context and facilitate future research study design and integrated healthcare implementation.

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#242 - Rau Mahara Rongomau: Trialing online mental health support while waiting for in-person therapy

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Objectives/aims
Demand for mental health services is high, and consequently wait times for in-person therapy are long. The aim of this study is to test whether providing an evidence-based online cognitive behavioural therapy programme called ‘Just a Thought’ to patients while they wait for in-person mental healthcare has benefits for both people on the waitlist (improved outcomes, faster) and the service provider (reduced waitlists, preservation of ‘high intensity’ therapy resources). This pragmatic randomised controlled trial is being implemented in a large primary healthcare practice that uses a patient-centred model of care and serves a culturally and socioeconomically diverse population living in Auckland, New Zealand.

Implementing the trial in this practice setting will provide information about the acceptability and effectiveness of offering online cognitive behavioural therapy as an initial and immediate-access treatment in a unique clinical, social, and cultural context. The trial also represents an important test of whether the implementation of an online programme that is based on a Western psychological model and tested mostly with highly educated and socioeconomically advantaged patient groups can be adapted to meet the needs of patients from diverse cultural backgrounds and with experience of persistent disadvantage, including Māori (the indigenous people of New Zealand) and Pasifika.

Methods
The trial was co-designed with practice staff, a local patient support group, and study researchers. We also tailored the design based on findings from an analysis of routinely-collect data from the Just a Thought website to understand common patterns of use and effectiveness for the populations we hope to benefit from this intervention.

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Implementation of the trial will begin in September 2023. Patients who have at least five weeks to wait before their first in-person therapy appointment will be invited to take part. Consenting participants will be randomised to one of two conditions: Just a Thought, or waitlist-as-usual plus generic wellbeing information. Throughout the trial, the study project manager will be in regular contact with participants to check in and ask them to complete regular mental health assessments. Participants will be followed for several months to understand the overall impact of the intervention beyond the conclusion of their in-person therapy sessions. Outcome measures include uptake and use of the online tools, changes in mental distress over time, and patient and clinician experiences with the intervention.

Main findings
This presentation will cover what we have learned: 1) from the co-design process; 2) from piloting the trial processes; and 3) about the acceptability and effectiveness of offering Just a Thought as an initial treatment for people waiting for in-person therapy in the context of a busy and culturally-diverse primary healthcare practice. I will conclude with a brief discussion about the challenges and opportunities for wider scale adoption of similar combined digital and in-person treatment models to support culturally appropriate mental healthcare service provision in the face of significant demand.

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#244 - ENGAGE /Start Well – Integrating a play-based self-regulation programme with a relationship-based model of care

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Objectives/aims
Start Well was established in November 2017 as one of the prototypes of the South Auckland Social Wellbeing Board (SASWB); a cross sector Place Based Initiative focused on learning from prototypes to drive system change and life course outcomes, focusing on the early years. Enabled by a low ratio co-worker model of expert paediatric nurses and senior social workers, Start Well is a relationship-based model of care for young mothers and their whānau (families), beginning in pregnancy and continuing until their children are aged at least five.

In 2021, SASWB and Start Well partnered with Methodist Mission Southern (MMS) to deliver the ENGAGE programme. This was the first time that ENGAGE had been delivered as part of an intensive home-visiting relationship-based model of care. Our aims were to understand:

- Can ENGAGE be successfully implemented in home-based settings for whānau experiencing multiple life stressors? Does ENGAGE work for whānau in their own context?
- What benefits are observed when ENGAGE is implemented in a home-based setting, and within the context of a trusted relationship?
- Can play-based approaches delivered in this way offer similar benefits to more traditional course-based parenting programmes?
- Is this approach effective at building tamariki (child) emotional regulation skills and positive parent/child interactions?

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- What are the wider considerations for practice, workforce development, service design, funding, and commissioning?

Methods

- **Co-design** – MMS practitioners, ENGAGE Practice Leads, Start Well practitioners, the SASWB Evidence and Insights team and University of Otago researchers (psychology) co-designed an implementation plan for the project – including selecting a sub-set of ENGAGE games that would be appealing/feasible for whānau, selecting a bespoke kete (basket) of resources.
- **Train-the-trainer / trusted relationship** – Start Well practitioners and ENGAGE Practice Leads undertook a collaborative approach to training the Start Well team based on the existing long-term trusted relationships with whānau and deep understanding of whānau circumstances.

A combination of qualitative and quantitative data collection methods was used:

- **Qualitative**:
  - Case notes and regular messages from Start Well practitioners capturing their conversations with whānau about ENGAGE.
  - Insights into whānau experiences were possible because of the trusted relationships between Start Well practitioners and whānau.
- **Quantitative**:
  - Whānau completed the Strengths and Difficulties Questionnaire (SDQ) at baseline and again 10-weeks after commencing the ENGAGE games. The (SDQ) is a brief behavioural screening questionnaire for children.

Main findings

29 whānau with tamariki (children) aged 2 years to 5 years with 23 whānau consenting to participate. Pre and Post SDQ scores were available for 17 children. **Pre and Post SDQ scores** demonstrated a non-statistically significant trend towards improvement across all five domains (emotional, conduct, hyperactivity, prosocial, peer). This was not unexpected given the small sample size (n=17).

Overall, we found that ENGAGE can be successfully implemented in home-based settings where whānau often face multiple life stressors, provided it is introduced in way that is responsive to whānau capacity and readiness (ideally, whānau-led), embraces whānau culture and language, and is delivered within the context of a trusted relationship with practitioners. We found that ENGAGE worked best when it was integrated as part of the Start Well day-to-day practice rather than being seen as an "add on".

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We found that the approach is effective at building tamariki (children) self-regulation skills and positive parent/child interactions, provided whānau can lead and have the capacity to implement ENGAGE **and** are well-supported by skilled, well-trained practitioners within the context of trusted relationships. This reinforced the importance of an integrated approach that is tailored to the unique circumstances of each whānau. ENGAGE can support positive parenting approaches, including increased play-based interactions and constructive resolution of conflict/stress, provided whānau lead and go at their own pace. Overall, we found that this was not about “delivering a programme within a service” – it was about adding techniques and resources to an existing relationship-based way of working.

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#247 - Implementing telephone peer navigation for addiction helpline callers

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Objectives/aims
Addiction is the most stigmatised health condition, globally. There are many barriers to accessing care for people experiencing addiction, compounded by high levels of stigma. Peer navigation for people experiencing addiction integrates lived experience, and professional knowledge and skills, to support people to engage in treatment and maintain recovery. This presentation reports on implementation of an Australian peer navigation pilot, embedded within an addiction telephone helpline, that was co-designed with people with lived experience of addiction. The aim of the intervention was to engage and empower addiction helpline callers to seek the information, care, and support they need. Peer workers have the potential to help address stigma and other barriers to care.

Methods
This pilot was undertaken in Victoria, Australia. Turning Point (Australia's leading addiction treatment, education, and research centre), with the Self Help Addiction Resource Centre and Monash University co-designed and piloted a peer navigation intervention to promote access to care and support for people experiencing addiction who were not currently receiving treatment. Eligible callers (n =34) were referred to a peer worker for six telephone sessions. Outcomes were assessed at baseline, exit and three-month follow up. Controlling for baseline measures, linear mixed models assessed changes in recovery capital, self-efficacy, and substance use severity. A descriptive approach was used to analyse qualitative data.

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Main findings

Analyses showed significant improvements in recovery capital (B = 2.54; *p* <.001) and self-efficacy (B = 0.18; *p* =.015) at exit and three-months. Participants showed significant reductions in substance use severity from baseline to three-months (Alcohol Use Disorders Identification Test: B = 16.40; *p* <.001; Drug Use Disorders Identification Test: (B = 8.09; *p* = 0.22). Those who completed exit data were significantly older (Mean difference = 12.93 years). Participants reported that the program was acceptable and satisfactory to them, and qualitative data indicated there were unique benefits of a peer worker approach that helped participants to access resources and support. Peer navigation has the potential to support people experiencing addiction to take steps towards recovery. A larger trial is needed to assess the efficacy of this peer navigation intervention in helping people overcome the multiple barriers to accessing care and support, including stigma, and identify the key elements of peer navigation, including what elements work, and for whom.

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#263 – EdTech Hub Innovation Sandboxes

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Objectives/Aims
With 258 million children out of school globally and many more experiencing disruptions due to Covid-19, we are currently facing a global education crisis, with the poorest children most adversely affected (UIS, 2019). In light of this, the role of digital and education technology (EdTech) in transforming the education sector has become increasingly paramount. However, decision-makers lack the evidence to make rigorous decisions about how to invest in education technology. The EdTech Hub, a global non-profit research partnership that exists to empower stakeholders by providing the necessary evidence for informed decisions about technology in education - but we know that this evidence is not enough. We also need to work alongside decision-makers to implement evidence and understand ‘what works’ in the real world.

To do this, we have pioneered an approach to establishing EdTech Sandboxes. In the world of technology development, a "sandbox" is a term borrowed from the concept of a physical sandbox, where children can safely play and experiment. In tech, a sandbox is a safe, isolated environment that mimics the live or production environment but does not affect it. This environment is used for testing, experimenting, or learning purposes.

Methods
The Sandbox approach, used to scale education technology across LMIC for five years, creates a ‘safe space’ to test approaches and take account of real world outcomes in order to iterate and adapt based on those outcomes. The efficacy of the Sandbox approach will be exemplified through three specific cases in Uganda, Bangladesh and Tanzania.

In Uganda, we tested "listening centres" as a mechanism for remote learning over 12 weeks, using a rapid RCT methodology that resulted in significant improvements in

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basic literacy competences. In Tanzania, we co-created a theory of change with government officials to pivot from a virtual learning environment for students to one for teachers, positively influencing a $50m investment in Zanzibar. Lastly, in Bangladesh, we used staggered deployment in a multivariate test for refining interventions, the outcomes of which provided a clear direction for investment in multi-media classrooms and teacher training.

Main Findings

Our presentation will share findings on two levels. First, we will discuss the specific outcomes of each sandbox in Uganda, Tanzania, and Bangladesh, highlighting how the experimental approach has informed strategy and implementation. Second, we will show the broader implications of these findings, presenting the Sandbox approach as an effective methodology for implementation research, especially in the field of EdTech.

Our findings not only shed light on how to strategically harness EdTech to mitigate the effects of the ongoing global learning crisis, but they also offer valuable insights into addressing the implementation challenges that governments and funding agencies encounter when leveraging technology in education. In doing so, our presentation aligns with the Summit theme, presenting innovative and high-quality research that has tangible relevance and utility for the field of implementation science.

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#272 - Defining and measuring experiences of workplace discrimination of youth from ethnic minority backgrounds in the UK.

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Objectives/aims

Youth Futures Foundation is the What Works Centre for youth employment, with a mission to support young people facing disadvantage into the labour market.

This paper reports on work by Youth Futures Foundation to explore the experiences of workplace discrimination of a cohort of minoritised young people (18-25) in the United Kingdom. It will describe a) the development of the survey as a tool for defining and measuring racial discrimination, b) a discussion of existing approaches and some of the problems encountered in defining and measuring discrimination, c) a description of our engagement with young people as part of the development of the survey, and d) headline findings of the survey and implications for future research and policy.

Racial discrimination appears to be on the rise globally. While very visible and tragic incidents of racist abuse abound, there are other, equally pernicious but less visible forms of everyday discrimination that minoritised groups experience, often unnoticed by the majority.
It has never been so important then to measure experiences of discrimination, and to understand the nature of such phenomena and its impact on those experiencing it. Unfortunately there is a relative absence of research on, and only a few established tools for measuring, everyday experiences of discrimination. Youth Futures' area of interest is addressing marginalised young people's barriers to employment. This particular sub-category of discrimination remains especially under-researched.
Alongside measurement issues, there is the thorny question of defining terms, in ways that acknowledge the complex and contested nature of the language used to describe

and make sense of race and racism in contemporary societies, whilst honouring both the objective and subjective elements of discrimination in a way that provides an accurate sense of both scale and impact.
Youth Futures began to address this challenge in its 2022 Ethnic Minority Background survey. The 2023 survey is currently under way, with an expanded sample and a renewed focus on the nature and texture of discrimination and its impact on young people's working lives and employment prospects.

Methods
The study reported on has two elements – 1) the development of ten minute online/telephone survey which will involve reviewing the 2022 survey and conducting a literature review of similar research and existing measurement scales. 2) the administration of the survey, to a cohort of between 2500 and 4000 young people from ethnic minority backgrounds in the UK; the collection and analysis of the data and presentation of findings.

Main findings
First we will report on the findings of the review of existing research instruments and the development of our own survey. Second we will report the headline survey findings with a reflection on implications for defining and measuring every day discrimination (research) and for addressing this problem (policy).

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#276 - The intersection between feasibility studies and implementation science

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Objectives/aims

There is a need to identify why multiple sclerosis exercise research is not translating into real-world participation. To lay the foundations of strong clinical research, considering the translational element of implementation science at the feasibility phase of a trial is vital.

Methods

Document analysis was used to examine document sources on exercise activity interventions designed for people living with multiple sclerosis. Document sources focused on multiple sclerosis research that incorporated exercise prescription elements and behaviour change and were feasibility studies incorporating aspects of implementation science.

Main findings

Multiple aspects of feasibility and how it can be assessed using an implementation science lens to support more successful interventions are provided. Adaption and tailoring to context should be considered early on in terms of how we ensure that the intervention will fit the context of its intended setting, group, or population. The opportunity, therefore, lies in designing the best possible intervention at the start

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(feasibility Phase 1). Doing so will help later phases, by identifying early on the determinants of current behaviour and desired behaviour change which can help in the selection of the components of the implementation strategies that can target key determinants. Therefore, this minimises the risk of replicating barriers when scaling the intervention across sites or scaling across healthcare systems. In conclusion, an alternate view is therefore outlined on where feasibility studies and implementation science intersect based on case examples that have not yet shown strong efficacy or effectiveness.

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#287 - Enhancing early years measurement in UK Local Authorities (LAs): Network analysis and data mapping

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Objectives/aims
Our team's (Jiayi Li, Dr Ellie Suh, Dr Katharina Ereky-Stevens, and Dr Leon Feinstein) ongoing project aims to establish an information system that facilitates local information use based on the current national measurement framework in early years (0-5 years old). We explore the specific requirements from a local perspective and determine how these needs can be more effectively supported at a national level. Additionally, our project has a multi-agency focus, promoting collaboration among various stakeholders for better data flow within the existing early years' structure to improve outcomes for children across child protection, early learning and disabilities.

Methods
We are starting to conduct a social network analysis to map and examine the influence of relationships and social structures on the current local early years data landscape in 5 LAs. This systematic review involves document analysis and semi-structured interviews with officials, practitioners and children and families on sites. Descriptive statistics and chronology charting will precede gap analysis of data flow. By incorporating theory of change workshops that identify a local scale concern for information use, we test how network measures can be useful at different stages involved to monitor, intervene, and improve the local information use based on the existing early years measurement framework.

Main findings
This presentation will show our work in progress. We expect to have a clear strategic vision on information use that would be helpful to assess the collective scope of different initiatives (in forms of projects or programmes) and identify data gaps in LAs.

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Furthermore, we expect to specify ways in which the benefits of existing initiatives can be maximised and sustained for the longer-term implementation. Proposals to address the challenges of continued implementation of conversational/relational approaches related to data collection will also be made. To further improve continuity across current data sources, we will also explore and discuss ways to incorporate "voice" and qualitative information into the measures used for the early years' system, utilizing network analysis.

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#300 - Towards a better understanding of home-visiting programs in real world settings: a large-scale effectiveness study of parenting mechanisms in Brazil

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Introduction

The first 1000 days of a child's life lay the foundation for human capital development (Walker et. al., 2011). Brain architecture is especially sensitive during this early period and is shaped by dynamic interactions across relational and environmental conditions (Fox, Levitt & Nelson, 2010). Early competencies in cognition and emotional regulation formed via complex interplay between and an infant and their environment have been found to consistently predict later educational attainment, job productivity, and mental heath (Salum et. al, 2010; Center on the Developing Child, 2007). Despite widespread scientific evidence and public recognition of ECD, globally 39% of children are at risk of not achieving their developmental potential resulting in an estimated future income loss of 20% each year (McCoy et. al., 2017).

Socioeconomic deprivation is one mechanism through which deficits in early child development are maintained and perpetuated (Attanasio, Cattan & Meghir, 2022). Consistent evidence over the past twenty years has revealed poverty's long-term bio-

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behavioural and epigenetic effects on brain functioning (Black et. al, 2017) and its cascading effect across generations (Bird, 2013). Neuroscientific evidence points to links between low socioeconomic status and smaller volumes of hippocampal grey matter (Yu et. al, 2018) as well as lower activation of related brain regions supporting language, cognition and memory into adulthood (Black et. al, 2017). Developmental deficits associated with poverty have also been found to widen over time if poverty-related stressors remain unaddressed (Rubio-Codina et. al., 2015).

Poverty and associated risk factors adversely impact parents and their caregiving practices (McCoy et. al., 2016). Parents living in poverty are less likely to read or play with their children and have fewer developmentally-appropriate play materials at home (Knauer et. al, 2016). Recent meta-analytic research suggests that children in LMICs are six times less likely than children in HICs to experience high stimulation at home or access early childhood education(60.7% vs. 9.2%) (MccCoy et al., 2016). With over 90% of children under age 5 living in LMICs, the implications of these findings are alarming (United Nations, 2017).

Quality stimulation during the early childhood period can attenuate the detrimental effects of poverty on brain architecture and stress reactivity (Black et al., 2017; Brown et. al., 2020; Luby et. al., 2013). The extent to which caregivers are responsive and reciprocal in their interactions with infants and toddlers are key determinants of optimal child development (Araujo et. al., 2021). A substantial body of causal evidence has confirmed that early interventions which target nurturing parenting behaviors, particularly sensitive responsiveness, can lead to improvements in children's cognitive, socioemotional and behavioural outcomes in the short and long term (for review see: Jeong et. al. 2021; Aboud et. al. 2015; Sweet & Applebaum, 2004; Haroz et. al., 2022) and serve as a robust protective factor against poverty-related adverse outcomes (Kendrick et. al., 2000).

In settings where constraints on positive caregiving are more pronounced—parenting interventions tend to produce greater, more robust effects. A recent global meta-analysis of 102 parenting interventions across 33 countries found that parenting interventions were significantly more effective at improving positive parent and child outcomes in LMICs compared to HICs (Jeong et. al., 2021). Effects on parenting practices in particular were 4 times greater (HIC, d=0.08 vs. LMIC, d= 0.47). Parenting interventions which integrated elements of responsive caregiving were found to be particularly efficacious, a finding which is consistent with previous meta-analyses (Mihelic, Morawska & Filus, 2017; Haroz et. al., 2022). Improvements in child development resulting from early parenting interventions have been found to generate significant longitudinal economic returns for the individual and society (Cannon et. al., 2018). Together this body of evidence suggests that parenting interventions in LMICs may generate a higher return on investment and a powerful policy mechanism to prevent within and between country inequalities from widening (Engle et. al., 2011).

Efficacy and intervention evidence of parenting program effectiveness

Despite expansion in the scale of parenting programs across the globe in recent years, reach has not been consistently met with impact (Engle et. al., 2011). Many scaled interventions have failed to replicate (Stansberry, 2018; Haroz et. al., 2022), with null effects reported twice as often as efficacy trials (Engle et. al., 2011). Findings have also been inconsistent, leaving gaps in knowledge about the effectiveness of parenting interventions across various outcome domains (Filene et. al., 2013). Efficacy trials are difficult to generalize because fidelity and adequate dosage are not as commonly delivered in real world settings (Araujo et. al. 2021 & Kendrick et. al., 2000). Additionally, the application and evaluation of RCTs by academic teams can substantially affect the rigor of assessment and training, weakening the external validity of study findings (Victora, Habicht, & Bryce, 2004).

Aside from uncertainty related to replication and scale-up of early interventions, it also remains unclear how many large-scale parenting programs improve child outcomes. Recently, policymakers and ECD stakeholders at national and global levels have recommended moving away from “black box” studies which assess impact on child outcomes alone (Lombardi, 2018; Zhou et. al. 2021; Jeung et al 2021) towards seeking to understand the “agents of change” in the interventions themselves (Shonkoff & Phillips, 2000). Successful replication and scale-up of parenting programs requires a better understanding of the key mechanisms in these early interventions in large-scale, real-world settings—specifically *how* they improve child development (Supplee & Duggan, 2019). Parenting programs “operate under the [understanding] that parents mediate changes for their children” (Sweet & Applebaum, 2004), but few evaluations have actually assessed parenting mechanisms linked to child development, despite acknowledgement of their importance(Aboud & Yousafzai, 2015). A recent global meta-analysis reported that 40% of parenting intervention studies did not report on any parenting outcome (Jeong et. al., 2021). A finding which is consistent with previous reviews (Aboud & Yousafzai, 2015).*[2] Large scale effectiveness studies of

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[2] HOME 1) quantity of play materials at home 2) organization of the home environment 3) family routines 4) responsive caregiving behaviours 5) harsh parenting practices and 6) child experiences from the last week (Kendrick et al 2000). The use of the HOME Scales in LMICs is even more pronounced than HICs due to its relative straightforwardness.

parenting interventions in LMICs have relied almost exclusively on the HOME inventory (Helmizar et. al., 2017; Andrew et. al., 2020; Araujo et. al., 2021) or the related Family Care Indicators (FCI) to assess potential changes in parenting (Attanasio et. al., 2014; Galasso et. al., 2019; Hamandi et. al., 2019; Knaeur et. al., 2016). Despite the popularity of these “brush-stroke” (Totsika & Sylva 2004) measures, their dependence on frequency or binary counts of parenting practices may reduce their ability to detect intervention effects, especially in real-world settings where program effects are consistently smaller (Correll et. al., 2020; Rossi, 2019) and behavioural changes more nuanced (Yousafzai et. al, 2016).

There also remains a dearth of real-world effectiveness studies in LMICs which assess heterogeneity in treatment effects by implementation features or meaningful subgroup differences (Jeong et al, 2021). While smaller trials have demonstrated the heterogeneity of treatment effects across various subgroups, few real-world, population-level studies have assessed potential treatment heterogeneity related to dosage, child age or family demographics, such as socioeconomic status (Kraft, 2020). More research is needed to understand whether variation in risk profiles within population subgroups may influence intervention effectiveness on parenting outcomes (Jeong et al, 2021).

The current study addresses this gap in the literature by evaluating whether a state-wide, standard-care parenting intervention, Primeira Infancia Melhor (PIM), in southern Brazil 1) improved five parenting behaviours approximately 24 months post-intervention and 2) whether effects were moderated by child age, length of program involvement, or family income.

Methods

Design & Participants

Data for this propensity score matched, longitudinal, quasi-experimental study, was obtained from the 2015 Pelotas birth cohort. Pelotas is a medium-sized city, population 344,000, in southern Brazil where approximately 42% of children 0-14 live in poverty compared to 34% across the state (IBGE, 2010). Families were eligible for inclusion in the birth cohort if children were hospital delivered, residing within the urban boundaries of the city, and born between January 1, 2015 to December 31st 2015. 4275 children and their mothers were assessed at birth (response rate of 98.7%). Follow-up assessments were conducted at 3, 12, 24, and 48 months at families’ homes, the hospital, or UFPel research center. Further details about the follow-up data can be found here.

Primary data from the 2015 Pelotas birth cohort were linked with Primeira Infancia Melhor's (PIM) state database on the basis of the child's name, mother's name and child's DOB in order to conduct the current analysis. PIM funding is contingent upon the number of children registered per city so it is unlikely families received the program without being registered. (Viegas da Silva et. al., 2022).

Intervention
PIM is a state-wide home-visiting program in Rio Grande do Sul (RS), Brazil, which has been in operation since 2003 and reached 200,000 families to date (Verch, 2017). It served as a model for Brazil's federal home-visiting program, Crianca Feliz, which is the largest home-visiting program in the world (saude.rs.gov.br). Program design is based on the Cuban home-visitation initiative, Educa a tu Hijo, (Woodhead et. al., 2014) and follows a similar weekly visitation model. Each visit centres around three key moments: 1) a brief discussion of the previous week's play activities, especially what the parent noticed about child interest and engagement; 2) introduction of a new play activity by the visitor, including modelling the activity with the child and encouraging parent and child to engage in play together 3) Review and discussion of the activity.

The aim of PIM is to promote child development through the encouragement of responsive, reciprocal parent-child interactions and facilitate family use and up-take of health and social services. PIM operates under a relatively de-centralized model. It is conceptualized as one governmental strategy to reach families residing in communities that may not have access to the early childhood education and care system (Cost of inaction report, 2021). The program is implemented via partnership between the state technical advising team and municipal coordinating teams (Verch, 2017). Supervisors work under the directive of the municipal team and are tasked with overseeing and supporting the professional development and delivery of the program by home visitors. Seven visitors are assigned to each supervisor. Visitors are selected after completing a 60-hour training and visit, at maximum, 17 families per week. No comprehensive curriculum is available to visitors. Instead, they are expected to plan for each visitation by drawing from a guidebook of core activity recommendations or their own previous experiences (Verch, 2017). Additional information about home-visitor demographics and visitation details can be found in here: (Viegas da Silva et. al., 2022).

PRE-RECORDED LIGHTNING TALKS

In the current study, 797 families of the 4,275 families in the Pelotas birth cohort received PIM at any between gestation and child age 4. Though PIM aims to target families with greater social vulnerability, no explicit selection criteria was used. Families included in the program were identified by visitors during their daily work in low-income neighbourhoods, indicated by child services, or recommended by other families.

Approximately two thirds of families that received PIM belonged to the bottom two income quintiles, compared to a third of families from the cohort that did not receive PIM. Moreover, twice as many PIM families reported low rates of at-home resources, compared to those from the cohort who did not receive the program. Families receiving PIM also reported lower rates of maternal and paternal education and higher rates of depression and neighbourhood violence, known risk factors for poor child development, suggesting that the program was successful at reaching a proportion of vulnerable families.

Outcomes

PRIMARY OUTCOMES

All parent outcomes were assessed at 48 months. Two observational measures of parent sensitive responsiveness were pre-selected as the primary outcomes, given their theoretical alignment with PIM content and robust evidence base (Verch et. al., 2017; Jeong et. al 2021; Mihelic, Morawska & Filus, 2017; Haroz et. al., 2022). Sensitive responsiveness[3]* refers to how attuned and accurately a parent notices their child's signals and how promptly and appropriately they respond to them (Ainsworth Sensitivity Scales, 1974; Hentschel, Yousafzai & Aboud, 2021). Parent responsiveness was assessed using Responsive Interactions for Learning (RIFL), which is comprised of three observationally coded subscales: communicative clarity, mind-reading, and mutuality building, yielding a composite score out of 11 (Prime et. al., 2014). A brief five-minute joint parent-child to building task was coded for responsiveness by two graduate level researchers who were blind to treatment allocation. RIFL was recently validated in Brazil using CFA (Schnieder et al., 2021) and demonstrated excellent (α=.94) internal consistency, with item-total correlations ranging from .61 to .88.. Intra-rater agreement for the measure indicated moderate reliability (n=415; ICC=0.62, Koo & Li, 2016).

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[3] also referred to as sensitivity and sensitive responsiveness in the literature

PRE-RECORDED LIGHTNING TALKS

Parent sensitivity responsiveness was also assessed using a separate observational measure. The measure was previously used in South Africa and designed for children in this age group (Murray et. al., 2016; Cooper et al., 2014; Stein et. al., 1994). Caregivers were instructed to look through a picture book, "Um dia na praça", with their child for five minutes. Similar blinding of graduate video-coders to treatment arms was conducted. A score of 1 on the five-point likert scale indicates low rates of sensitive responsiveness. Intra-observer agreement on the measure was excellent (n= 415; 99.4%; Kappa: 0.97). Previous trials using the measure found that improvements in responsiveness mediated the effect of the parenting intervention on child cognitive development (Dowdall et. al., 2021, Murray et al., 2016).

SECONDARY OUTCOMES

Parent guidance

Parent guidance was assessed via observation of the filmed Don't Touch Task by graduate researchers and based on a coding scheme previously used in South Africa with children of a similar age group and socioeconomic background (Cooper et. al., 2014). For the task, the caregiver and child were presented with a box of interesting toys and instructed that they were not allowed to touch the toys. Parent verbal and physical guidance were ranked separately from 0 (caregiver makes no attempts to engage child physically/verbally) to 3 (caregiver engages child in physical activity/verbal for most of the time) for each 20 second block and then averaged to produce a total score. Intra-observer agreement on the measure indicated excellent reliability (n=497; ICC=0.997)

Parent Coerciveness & Parent child relationship

Measurement of coercive parenting practices and the quality of the parent-child relationship was drawn from PAFAS, the Parenting Scale of the Parent and Family Adjustment Scales (Sanders et al. 2014) a parent-self report measure which has been widely with disadvantaged populations (*Indonesia,* Sumargi et. al., 2018; *Mexico,* Mejia et. al. 2015; *China* Zhong et. al., 2020). The parental coerciveness subscale includes four items with a maximum of 12 points possible (0-12): 1) I shout or get angry with my child when they misbehave; 2) I try to make my child feel bad (e.g. guilt or shame) for misbehaving to teach them a lesson; 3) I spank (smack) my child when they misbehave; 4) I get annoyed with my child. The parent-child relationship subscale includes five items, with a maximum of 15 points possible (0-15): 1)I chat/talk with my child 2) I enjoy giving my child hugs, kisses and cuddles 3) I am proud of my child; 4) I enjoy spending time with my child; 5) I have a good relationship with my child.

PRE-RECORDED LIGHTNING TALKS

A recent confirmatory factor analysis of the 18-item PAFAS was applied at 4-year follow-up to the 2015 Pelotas cohort (N=3,970). The final validated scale used in the current study includes 14 items and showed a good reliability coefficient (0.912). The results are in accordance with the validation study of the PAFAS scale in its full version (40 items), carried out by Santana (2018) with 315 mothers of pre-school children in northern Brazil. More details about CFA conducted by the Pelotas team on the PAFAS measure can be made available upon request.

Statistical Analysis

After linking the cohort and state databases, propensity scores were calculated for the probability of receiving PIM, conditional on baseline covariates. Covariates were chosen based on their relationship to the PIM selection criteria that families lived in situations of social vulnerability. Details about each covariate can be found in *Supplemental Table 1.* We matched those who had received PIM (n=587) with one+ participants from the cohort based (n=2431) on their propensity score which was generated by logistic regression. 26 covariates were used to generate the propensity scores, with participating in PIM as the dependent variable. Analysis plans were pre-registered on OSF and conducted in R 4.1.0 using the MatchIt (Hansen & Klopher, 2006; Hansen, 2004) cobalt (Griefer, 2017), boot (Cantly & Ripley, 2021), and lmtest (Zeileis & Hothorn, 2002) packages. Participants were excluded from the analysis if they were missing data on any covariate or outcome variable given the difficulty of operationalizing imputation methods in analysis with double adjustment (Viegas da Silva et. al., 2022). The covariate with the highest percentage of missing data (couple's relationship quality: 17.5%) was not included in the propensity score calculation, to minimize losses (Viegas da Silva et. al., 2022).

Prior to running the logistic regression, initial balance was checked on each covariate to determine whether estimates were above the 0.1 standardized mean difference (SMD) cut-off between the potential control and treatment groups (Austin, 2011; Zhao et. al., 2021). Those covariates which met SMD balance criteria prior to running the regression were excluded from the model. Covariates which were found unbalanced after initial matching were entered into a new logistic regression model until balance was achieved. Covariates were considered balanced after matching, if SMDs were below 0.1 across each covariate level and variance ratios (VRs) were > 0.5 and < 2, which are cut off points found by previous researchers to denote significant differences between two groups (Rubin, 2001; Austin, 2011).

Various matching approaches were used, including near-neighbour, optimal matching, and full matching. Full matching was found to produce the most well-balanced pairings, with the smallest SMD differences and VRs across each covariate level. Full matching is a form of matching wherein all treatment and control units are allocated to a subclass and weighted. It is recognized as a combination of distance and stratum matching (Griefer, 2022). Unlike 1:1 matching, full matching produces matching weights which are computed to produce an effective sample size (ESS)* and applied to the matched sample in the outcome analysis (Hansen & Klopfer, 2006). The advantages of full matching are that no matching order is required to be pre-specified—which can influence the quality of matching—and control units can be reused—which is particularly important when treatment units differ markedly across key covariates from potential controls (Hansen & Klopfer, 2006; Hansen, 2004).

All covariates were measured from maternal reports during the perinatal assessment at the hospital except the following: main caregiver until the child reached 3 months of age; depressive maternal symptoms and the couple's relationship quality, which were measured at the 3-month assessment; childcare attendance, which was measured at the 2-year assessment; and neighbourhood violence, which was measured at the 4-year assessment.

Analyses of our primary outcomes, parent responsiveness and sensitivity, were based on linear regression. Secondary outcomes, parent guidance and coerciveness were analysed by linear regression, while the quality of the parent-child relationship was analysed by logistic regression for direct estimation of the odds ratio. We initially planned to transform any outcome variables that were not normally distributed, however the sample size ended up being large enough in each analysis (n>450) that were advised such transformation was not necessary. Covariates which were found to be unbalanced after multiple matching specifications were re-entered into the outcome regression for double adjustment (Nguyen et. al., 2017). For standard error estimation, we used cluster robust errors to account for potential dependence between matched pairs (Austin, 2009; Austin & Small, 2014; Austin & Stuart, 2017). We applied bootstrapping (n=2999) to estimate the standard errors of the binary outcome, parent-child relationship, when covariates were re-entered into the logistic regression outcome model with bias-corrected and accelerated confidence intervals (Griefer 2022; MacKinnon, 2006).

We first analysed the effect of PIM on parenting outcomes for families who enrolled at any time between pregnancy and child age 48 months. Next, moderation analyses were conducted. The intervention group was stratified for each of the three potential moderators—1) joining PIM before vs. after birth 2) low vs. high income family 3) 12 < vs. ≥ 12-month PIM involvement. Full matching, using the steps outlined above, was conducted separately for each stratified subgroup drawing from the control group, which was randomly split in half. Following this, separate effects were estimated and Cochrane's Q heterogeneity $\chi 2$ test was used to examine potential effect modification across the three moderators.

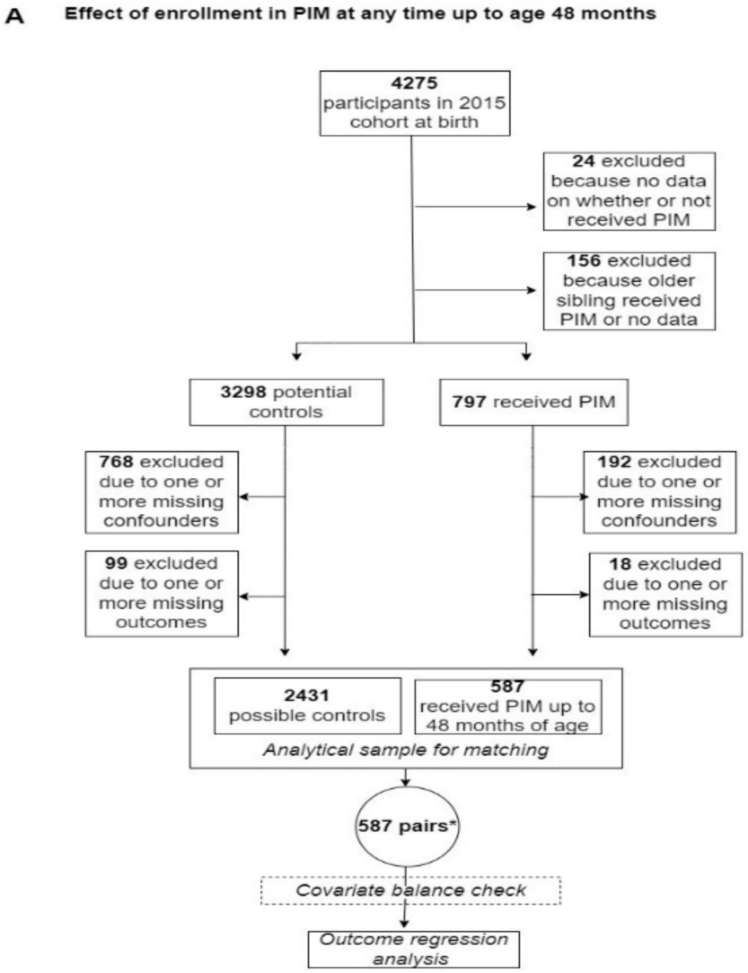
For the stratum which enrolled in PIM during pregnancy, 15 covariates were selected. These covariates were not on the causal pathway of PIM starting during pregnancy on parenting outcomes. For the stratum which enrolled after birth and moderation questions related to family income and length of program involvement, the same original 26 confounders were also used.

Patient and Public Involvement

The municipal and state management of the PIM program contributed to the planning of this present evaluation. Results have been shared with key PIM supervisors and stakeholders in order to inform program design and increase impact.

Figure 1: Flow chart showing numbers of children for whom propensity scores were calculated in the primary matched analyses and reasons for covariate and outcome exclusion.

PRE-RECORDED LIGHTNING TALKS



PRE-RECORDED LIGHTNING TALKS

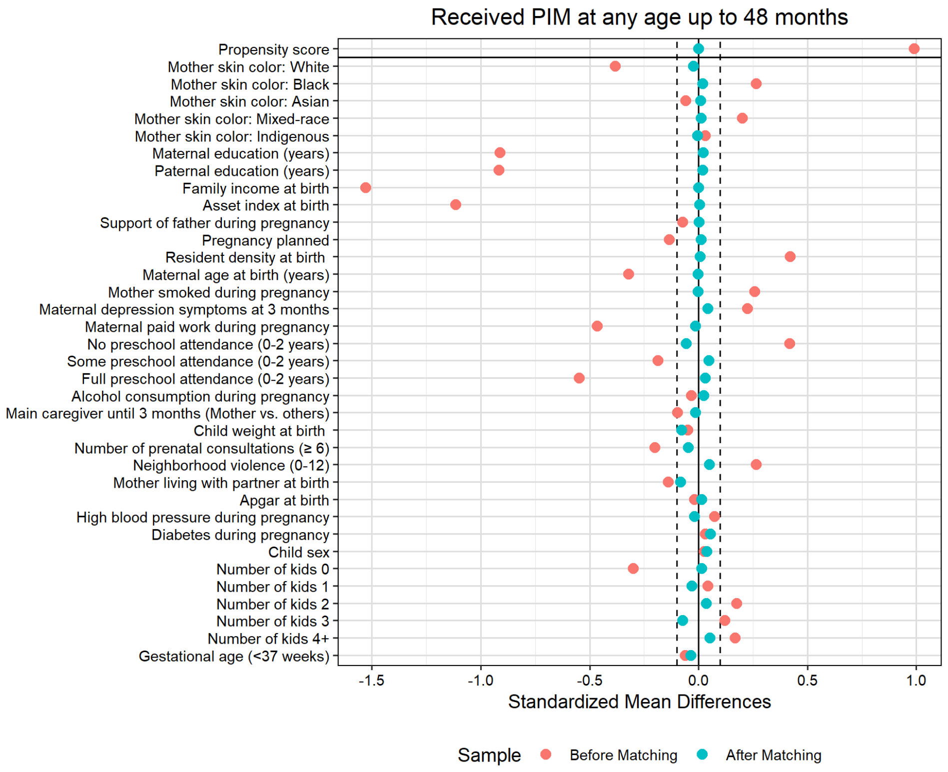
Results
Main analyses
Out of 4275 children in the Pelotas cohort, 797 were enrolled in PIM at any point up to 48 months of age. 3018 children (70.6%) were included in the analytic sample, of whom 587 were enrolled in PIM with 2431 number of potential controls. Most exclusions from the original sample were due missing data on key covariate or outcome variables *(Supplemental Table 1).*

Figure 2 presents two love plots which compare the standardized mean & variance ratio differences between families who received PIM at any time vs. potential controls, before vs. after matching on the 25 confounders (pink vs. blue dots). The dotted line indicates threshold cut-offs of 0.1 for SMD and 0.5 & 2 for VRs. Full matching resulted in matches well-below the SMD & VR thresholds for all covariates.

Comparing families who received PIM with matched controls, we found a statistically significant effect of PIM on parent responsiveness (p=0.04, 95%CIs 0.002 to 0.16, β = 0.08, d= 0.10) and parent sensitivity (p=0.02, 95%CIs 0.02 to 0.19, β = 0.10, d=0.13) (*Table 1*). No effect was found on coerciveness guidance, or the parent-child relationship.

PRE-RECORDED LIGHTNING TALKS

Figure 2A: Love plot comparison of SMD differences before vs. after propensity score matching in the analysis of any enrolment in PIM at any age



PRE-RECORDED LIGHTNING TALKS

Figure 2B: Love plot comparison of VR differences before vs. after propensity score matching in the analysis of any enrolment in PIM at any age

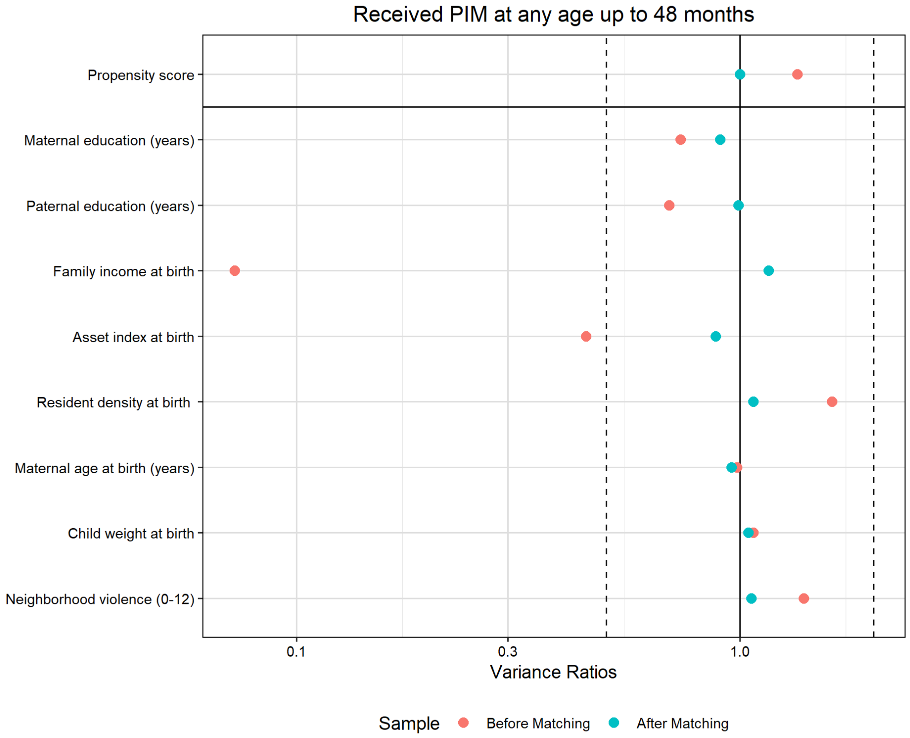


TABLE 1: Effects of any enrollment in PIM up to 48 months on parenting outcomes				
Full matched analysis (587 pairs*)				
Outcome	**β**	**95% CI***	**P value**	***d***
Linear regression for mean parenting score				
Parent responsiveness	0.08	0.002 to 0.16	0.04†	0.10
Parent sensitivity	0.10	0.02 to 0.19	0.02†	0.13
Parent coerciveness	0.002	-0.04 to 0.06	0.98	0.001
Parent guidance	0.01	-0.04 to 0.06	0.63	0.03
Logistic regression for odds ratio				
	OR	**95% CI***	**P value**	
Quality of parent-child relationship	1.07	0.85 to 1.33	0.56	

PRE-RECORDED LIGHTNING TALKS

*ESS is the effective sample size and is used in cases of optimal full matching when matched samples are calculated via stratification and weighting. In the case of this analysis, in the ESS there were 594 controls and 587 treated individuals.

† denotes that the p value is < 0.05 and CIs do not pass through zero.

Moderation Analyses

Moderation analysis across the three potential effect modifiers revealed mixed findings. We first estimated the effects of PIM for those families who joined during pregnancy (n=120) vs. after birth (n=467). The stratums demonstrated good balance on SMDs, though a few covariates were just above the SMD cut-off and as such were re-entered into the outcome regression *(Supplemental Figures 1-6)*. Previous studies have reported inconsistent findings for child age as a potential effect modifier of intervention effectiveness on parenting outcomes (Jeong et. al., 2021; Bakersman Kranenberg et. al., 2003). A recent evaluation of the same intervention determined that PIM was only effective at improving child development and decreasing likelihood of developmental delay for those families who joined the program during pregnancy (Viegas da Silva et. al., 2022). The authors therefore hypothesized a positive effect on the primary parenting outcomes of sensitivity and responsiveness for this subgroup. No effect, however, was found on any parenting outcome for parents who joined PIM during pregnancy or after birth *(Table 2-3).*

TABLE 2: Effects of receiving PIM during pregnancy on parenting outcomes

Optimal full matched analysis (ESS*= 120 pairs)

Outcome	**β**	**95% CI***	**P value**	***d***
Linear regression for mean parenting score				
Parent responsiveness	-0.02	-0.29 to 0.15	0.82	-0.02
Parent sensitivity	0.06	-0.10 to 0.22	0.44	0.08
Parent coerciveness	0.19	-0.27 to 0.65	0.42	0.09
Parent guidance	0.04	-0.04 to 0.13	0.30	0.10
Logistic regression for odds ratio				
	OR	**95% CI***	**P value**	
Quality of parent-child relationship	1.35	0.84 to 2.14	0.21	

*Treatment group: 120, Control group: 234

PRE-RECORDED LIGHTNING TALKS

TABLE 3: Effects of receiving PIM after birth on parenting outcomes				
Optimal full matched analysis (ESS*= 468 pairs)				
Outcome	**β**	**95% CI***	**P value**	***d***
Linear regression for mean parenting score				
Parent responsiveness	0.03	-0.08 to 0.14	0.60	0.04
Parent sensitivity	0.07	-0.04 to 0.18	0.23	0.08
Parent coerciveness	-0.19	-0.48 to 0.09	0.19	-0.09
Parent guidance	0.03	-0.04 to 0.09	0.3955	0.07
Logistic regression for odds ratio				
	OR	**95% CI***	**P value**	
Quality of parent-child relationship	0.94	0.69 to 1.26	0.67	

*Treatment group: 468, control group: ~270

Next, families from the analytical sample were stratified by income comparing parent outcomes of the bottom tercile (n=313) to those in the upper two (n=274). Improvements in parent sensitivity (p=0.02, 95%CIs 0.03 to 0.34, , β = 0.18, d=0.22) were found for low-income parents (*Tables 4 & 5).* Cochrane's Q heterogeneity testing comparing the groups produced a p value of 0.11, just above the cut-off criteria. No effects were found for any parenting outcome in the higher income group. Finally, moderation analyses were conducted according to length of program involvement (< 12 months (n= 245) vs. ≥ 12 months (n=342)). No effects were found on any parenting outcomes for either group *(Tables 6 & 7)*.

PRE-RECORDED LIGHTNING TALKS

TABLE 4: Effects of receiving PIM on low-income caregivers' parenting outcomes				
Optimal full matched analysis (ESS*= 313 pairs)				
Outcome	**β**	**95% CI***	**P value**	***d***
Linear regression for mean parenting score				
Parent responsiveness	0.01	-0.14 to 0.16	0.89	0.01
Parent sensitivity	0.18	0.03 to 0.34	0.02†	0.22
Parent coerciveness	0.02	-0.34 to 0.39	0.89	0.01
Parent guidance	-0.01	-0.07 to 0.06	0.87	-0.01
*Logistic regression for odds ratio estimated via boostrapping and confidence intervals via BCa**				
	OR	**95% CI***		
Quality of parent-child relationship	0.89	0.52 to 1.18		

*Treatment group: 313, control group: ~123
*Bias corrected and accelerated bootstrapping

TABLE 5: Effects of receiving PIM on higher-income caregivers' parenting outcomes				
Optimal full matched analysis (ESS*= 238 pairs)				
Outcome	**β**	**95% CI***	**P value**	***d***
Linear regression for mean parenting score				
Parent responsiveness	0.09	-0.04 to 0.22	0.19	0.11
Parent sensitivity	0.02	-0.11 to 0.15	0.78	0.14
Parent coerciveness	0.11	-0.24 to 0.47	0.53	0.05
Parent guidance	-0.01	-0.08 to 0.06	0.69	-0.04
Logistic regression for odds ratio				
	OR	**95% CI***	**P value**	
Quality of parent-child relationship	0.87	0.62 to 1.21	0.40	

*Treatment group: 274, control group: ~282

PRE-RECORDED LIGHTNING TALKS

TABLE 6: Effects of receiving < 12 months of PIM on parenting outcomes				
Optimal full matched analysis (ESS*= 245 pairs)				
Outcome	**β**	**95% CI***	**P value**	***d***
Linear regression for mean parenting score				
Parent responsiveness	0.04	-0.07 to 0.19	0.52	0.08
Parent sensitivity	0.04	-0.02 to 0.24	0.58	0.13
Parent coerciveness	0.04	-0.36 to 0.38	0.84	0.01
Parent guidance	0.03	-0.10 to 0.02	0.46	-0.11
*Logistic regression for odds ratio using bootstrapping and and confidence intervals via BCa**				
	OR	**95% CI***		
Quality of parent-child relationship	1.09	0.79 to 1.50		

*Treatment group: 245, control group: ~289
*Bias corrected and accelerated bootstrapping

TABLE 7: Effects of receiving 12+ months of PIM on parenting outcomes				
Optimal full matched analysis (ESS*= 342 pairs)				
Outcome	**β**	**95% CI***	**P value**	***d***
Linear regression for mean parenting score				
Parent responsiveness	0.06	-0.06 to 0.19	0.34	0.08
Parent sensitivity	0.10	0.02 to 0.24	0.10	0.13
Parent coerciveness	0.01	-0.36 to 0.38	0.94	-0.02
Parent guidance	0.04	-0.10 to 0.02	0.16	-0.11
*Logistic regression for odds ratio estimated via boostrapping and confidence intervals via BCa**				
	OR	**95% CI***		
Quality of parent-child relationship	0.92	0.67 to 1.49		

*Treatment group: 342, control group: ~201
*Bias corrected and accelerated bootstrapping

PRE-RECORDED LIGHTNING TALKS

Discussion
This study evaluated whether a real-world, large-scale home visiting program targeting vulnerable families in a population-based birth cohort in Brazil improved parenting practices at approximately 24 months follow-up. Study findings revealed that receiving PIM at any age resulted in modest positive effects on parent responsiveness and sensitivity. This finding is promising given that responsive caregiving was one of multiple behavioural targets of the program (Primeira Infancia Melhor: Guia da familia)and lends support to the argument that parenting programs which seek to improve sensitivity, as well as multiple other risk factors, can still be efficacious. To date, only one other population-level evaluation of a standard care home-visiting program in a LMIC has assessed observational changes in parent sensitive responsiveness (Santos et. al., 2022). However, pervasive implementation issues plagued the program from its inception in Brazil (Santos et. al., 2022) and likely influenced the external validity of null findings on responsiveness. Recent evaluations of other scaled parenting interventions in Latin America have reported mixed findings on self-reported parenting outcomes in the short and long term—with positive effects reported on positive parenting in some settings (Knauer et. al., 2016; Araujo et. al., 2021) and not others (Santos et. al, 2022; Araujo et. al., 2021). More work is needed to determine whether scaled parenting interventions can reliably impact the quality of parent-child interactions. Currently, the ECD field cannot adequately answer this question. We need to move beyond using “brush-stroke” (Totsika & Sylva 2004) measures that represent simple, summed counts of complex parenting behaviours to capturing ecologically valid, observational demonstrations of the behaviours themselves. It is only by moving to this more granular level of parsing apart early interventions and specific behavioural improvements in parenting that we can move forward in building ECD programs with greater chances of replication and reach.

One significant barrier to using observational measures of responsive parenting in LMIC settings is the time it takes to competently train in and apply these measures. This challenge is particularly acute in real-world effectiveness studies, where participant samples are larger and implementation challenges may complicate data collection. Current work is underway to validate rapid observational measures of responsiveness in LMIC settings, with promising results thus far. (cite the Elizabeth Hentschel WHO article).

Our three moderation analyses from the current study revealed mixed findings. The timing of families’ entry into PIM, either before or after birth, was not found to moderate intervention effects on any parenting outcomes. While previous meta-analytic research on the topic of child age and program entry remains largely inconclusive (Jeong et. al, 2021; Bakersman-Kranenberg et. al., 2003), a recent effectiveness study of a similar play-based home-visiting program in Peru did not find heterogeneity of treatment effects by child age (Araujo et. al., 2021). In the context of the current study, null finding were initially surprising. A previous evaluation of PIM with the same sample found that the program was only effective at improving cognitive development and decreasing risk of developmental delay in the subgroup of families that joined the program during pregnancy (Viegas da Silva, 2022). Given this, the authors hypothesized that improvements in sensitive and responsive parenting were the likely mediators of improvements in child cognition. Null effects may be explained by three potential reasons. First, the sample size of the subgroup that received PIM during pregnancy (N= 120) may not have been large enough to detect an effect. A sample size of n>400 in the pregnancy subgroup would have been needed to pick up an effect of d=0.15 with 80% power. Second, it is possible that other parenting mechanisms not captured in the current study may have mediated changes in child development. Previous research has found that there are multiple parent-related pathways to subsequent improvements in child development that extend beyond the caregiving behaviours captured in the current study to include: parent mental health, parent knowledge of child development and families' connection to medical services. Third, the subsample of families who received PIM during pregnancy differed from families who joined after birth in that they received explicit content prenatally which emphasized breastfeeding and early nutrition—factors which have been found to correlate with improvements in child cognition (Victora et. al 2016.). It is possible that improvements in these parenting features contributed to the positive effects on child cognitive outcomes found in the subsample.

Families who received PIM for 12 months or greater did not demonstrate significant improvements in parenting compared to families who received the program for a shorter duration. Previous research on the potential differential effectiveness of program dosage by parenting outcome is mixed (Jeong et al 2021, Bakersman-Kranenburg et al 2003, Mihelic, Morawska and Filus, 2017; Peacock et. al, 2013) and the field has provided contradictory guidance related to whether less is indeed more when it comes to the relationship between dosage and improvements in various parenting behaviors(Britto et al 2017, Bakersman-Kranenburg et al 2003). In the case of the current study, the length of time which families received PIM acted as a rough proxy for the number of visits that they received. It is, however, possible that families who participated in PIM for fewer than 12 months may have received a similar dose of visits to those who remained in the program for longer. Issues with take-up and dosage are pervasive within field of early intervention research (Haroz et. al., 2022). A recent evaluation of Peru's national home visiting program, Cuna Mas, for example, found that more than half of families received fewer that 70% of the prescribed dosage, with thirty-four percent of families failing to receive single visit (Araujo et. al., 2021). Findings from an effectiveness study of Brazil's national parenting program, Crianca Feliz, were similar. Participating families recieved only 18% of the anticipated program dosage over a three-year period (Santos et al. 2022). Interestingly, while in principle PIM families had the option of participating in the program from conception till child age 5, in reality, families left the program after an average of 13 months. The primary reason parents cited for exiting PIM early was that they no longer had an available home-visitor (34%) or that they chose to leave (25%). These findings highlight the interconnected and potentially confounding relationship between issues of dosage and attrition (Leer et. al., 2017). They also raise questions within field about the relationship between dosage and effectiveness. Many currently at-scale home-visiting programs in HIC and LMICs do not have clearly articulated theories of change which specify the minimum threshold of visits needed to attain a significant effect on outcomes of interest. In order to move the field forward, HVPs should iteratively seek to define and test what constitutes optimal dosage (Grantham-McGregor et al 2020) and link these to mechanisms of change.

It appears that there may have been greater effectiveness of PIM at improving parent sensitivity in low- income families compared to higher income families, though heterogeneity testing suggests we interpret these results with caution. This finding is promising as it suggests that families experiencing socioeconomic deprivation and likely facing additional risk factors that constrain nurturing care (Britto et. al., 2017) can demonstrate positive improvements in important caregiving skills after participation in a standard care, population-based parenting program. The implications of this finding suggest a potential developmentally protective pathway against poverty-related stressors. They also provide evidence, in the context of PIM, to prioritize low-income families as program recipients and use SES as a key indicator for PIM membership. Explicit targeting of families where differential effectiveness has been proven is a public policy strategy which is gaining traction in the field (Supplee & Duggan, 2019; Lombardi, 2018; Early Infant Foundation, 2021) and it is hoped that future real-world parenting intervention evaluations consider SES as a key effect modifier of program effects on parenting. There were no significant differences between high and low income groups on indicators of program entry, program departure or length of program

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involvement, suggesting that implementation factor were unlikely to explain this finding.

Limitations and Strengths

One important limitation of the current study is its quasi-experimental approach to answering causal questions. The lack of randomization of participants to treatment and control conditions, despite a robust propensity score matching approach and extensive covariate adjustment, means there may be unaccounted for residual confounding. There was also a lack of detailed implementation data available, which means that factors related to fidelity, participant satisfaction and home-visitor preparedness, among others, may have impacted intervention delivery in ways that were not considered in the current analyses (Viegas da Silva et. al., 2022). Approximately thirty percent of the sample was excluded due to missingness on outcome or covariate data. While no significant differences were detected between the excluded and analytical samples, it is possible that additional factors influenced parent completion rates of self-report and observational data which were not captured. It is also possible that some participants may have joined PIM under the assumption that participation was required of them, though this remains unclear. The current study possesses notable strengths related to its evaluation of a real-world, standard care parenting intervention which was implemented and evaluated within the context of a population-based birth cohort without any involvement or interference of the research team. Analytical strengths include the various propensity score matching approaches which were applied to the sample to ensure that high-quality matching was achieved across all 25 covariates. Line here about full matching and how the probability scores averages were tiny? The validity, nuance and accuracy of the multiple parent-child observational measures that were applied in the current study presents a singular, additional strength, one that is rare in other effectiveness in LMICs.

PRE-RECORDED LIGHTNING TALKS

SUPPLEMENTAL TABLES

Supplemental Table 1: Missingness rates on key covariates and outcome variables across the whole cohort, analytical sample, and excluded sample.

Covariate	**Whole cohort (n=4,275)**	**Analytical Sample (n=3,018)**	**Excluded Sample (n=1,257)**
Maternal age at birth, mean (sd) Missing data	27.6 (6.6) 1	27.9 (6.5) 0	27.0 (6.9) 1
Maternal education, mean (sd) Missing data	10.0 (4.0) 1	10.4 (3.9) 0	9.1 (4.1) 1
Paternal education, mean (sd) Missing data	9.4 (4.1) 252	9.5 (4.0) 0	9.1 (4.3) 252
Family income at birth, mean (sd) Missing data	3057.0 (4123.5) 259	3119.0 (4091.1) 0	2869 (4216.6) 259
Asset index at birth, mean (sd) Missing data	0.0 (2.5) 148	0.1 (2.4) 0	-0.3 (2.6) 148
Resident density at birth, mean (sd) Missing data	2.7 (1.0) 172	2.6 (0.9) 0	2.7 (1.1) 172
Neighborhood violence, mean (sd) Missing data	2.8 (2.8) 314	2.8 (2.7) 0	2.8 (2.8) 314
Child weight at birth(g) , mean (sd) Missing	3170 (564.2) 17	3205 (536.2) 0	3085 (619.2) 17
No. of prenatal consultations, n(%) <6 ≥6	674 (15.8) 3583 (84.2) 18	357 (11.8) 2661 (88.2) 0	317 (25.6) 922 (74.4) 18

Missing			
Maternal depression symptoms at 3 months, n(%)			
Yes	831 (20.3)	566 (18.8)	265(24.6)
No	3264 (79.7)	2452 (81.2)	812 (75.4)
Missing data	180	0	180
Gestational age, n(%)			
<37 weeks	663 (15.5)	408 (13.5)	255 (20.3)
≥37 weeks	3612 (84.5)	2610 (86.5)	1002 (79.7)
Missing data	0	0	0
Apgar at the 5th minute, n(%)			
<7	54 (1.3)	26 (0.9)	28 (2.3)
≥7	4206 (98.7)	2992 (99.1)	1214 (97.7)
Missing data	15	0	15
No. of kids living with mother at birth, n(%)			
0	2174 (50.9)	1572 (52.1)	602 (48.0)
1	1341 (31.4)	970 (32.1)	371 (29.5)
2	453 (10.6)	310 (10.3)	143 (11.4)
3	169 (4.0)	98 (3.2)	71 (5.7)
4+	13 (3.2)	68 (2.3)	68 (5.4)
Missing data	2	0	2
Mother's skin color/race, n(%)			
White	3024 (70.9)	2193 (72.7)	831 (66.5)
Black	667 (15.6)	447 (14.8)	220 (17.6)
Mixed race	551 (12.9)	361 (12.0)	190 (15.2)
Asian	16 (0.4)	11 (0.4)	5 (0.4)
Indigenous	10 (0.2)	6 (0.2)	4 (0.3)
Missing data	7	0	7
Father's degree of pregnancy support, n(%)			
Little support	462 (11.0)	254 (8.4)	208 (17.6)
Much support	3736 (89.0)	2764 (91.6)	972 (82.4)
Missing data	77	0	77
Mother lives with partner at birth , n(%)			
Yes	3667 (85.8)	2715 (90.0)	952 (75.8)
	607 (14.2)	303 (10.0)	304 (24.2)

PRE-RECORDED LIGHTNING TALKS

No Missing	1	0	1
Main caregiver until 3 months , n(%)			
Mother	3941 (95.9)	2929 (97.1)	1012 (92.8)
Other	168 (4.1)	89 (2.9)	79 (7.2)
Missing	166	0	166
Mother smoked during pregnancy, n(%)			
Yes	705 (16.5)	422 (14.0)	283 (22.6)
No	3567 (83.5)	2596 (86.0)	971 (77.4)
Missing	3	0	3
Mother drank alcohol during pregnancy, n(%)			
Yes	315 (7.4)	216 (7.2)	99 (7.9)
No	3957 (92.6)	2802 (92.8)	1155 (92.1)
Missing	3	0	3
Maternal diabetes during pregnancy , n(%)			
Yes	366 (8.6)	272 (9.0)	94 (7.5)
No	3906 (91.4)	2746 (91.0)	1160 (92.5)
Missing	3	0	3
Mother paid worked during pregnancy, n(%)			
Yes	2379 (55.7)	1779 (58.9)	656 (52.2)
No	1895 (44.3)	1239 (41.1)	600 (47.8)
Missing	1	0	1
Mother arterial hypertension during pregnancy, n(%)			
Yes	1089 (25.5)	768 (25.4)	321 (25.6)
No	3183 (74.5)	2250 (74.6)	933 (74.4)
Missing	3	0	3
Pregnancy planned, n(%)			
Yes	2058 (48.2)	1578 (52.3)	480 (38.2)
No	2216 (51.8)	1578 (47.7)	776 (61.8)
Missing	1	0	1
Child sex, n(%)			
Male	2164 (50.6)	1554 (51.5)	610 (48.5)

PRE-RECORDED LIGHTNING TALKS

Female	2111 (49.4)	1464 (48.5)	647 (51.5)
Missing	0	0	0
Preschool attendance, n(%)			
No preschool attendance (0-2 years)	2615 (66.9)	1971 (65.6)	644 (72.5)
Some preschool attendance (0-2 years)	886 (22.7)	702 (23.3)	184 (20.7)
Full preschool attendance (0-2 years)	405 (10.4)	345 (11.4)	60 (6.8)
Missing	369	0	369
Any enrolment in PIM up to age 4, n(%)			
Yes	797 (18.6)	587 (19.4)	210 (17.0)
No	3454 (81.3)	2431 (80.6)	1023 (83.0)
Missing	24	0	24
Responsive interactions, mean (sd)	2.5 (0.8)	2.6 (0.8)	2.3 (0.8)
Missing	407	0	407
Parent sensitivity, mean (sd)	3.6 (0.8)	3.7 (0.8)	3.4 (0.9)
Missing	407	0	407
Parent coerciveness (PAFAS), mean (sd)	3.6 (2.1)	3.6 (2.1)	3.6 (2.2)
Missing	297	0	297
Parent guidance, mean (sd)	0.7 (0.4)	0.7 (0.4)	0.60 (0.4)
Missing	416	0	416
Parent-child relationship (PAFAS), n(%)			
0	2101 (52.8)	1651 (54.7)	450 (46.8)
1	1878 (47.2)	1367 (45.3)	511 (53.2)
Missing	296	0	296

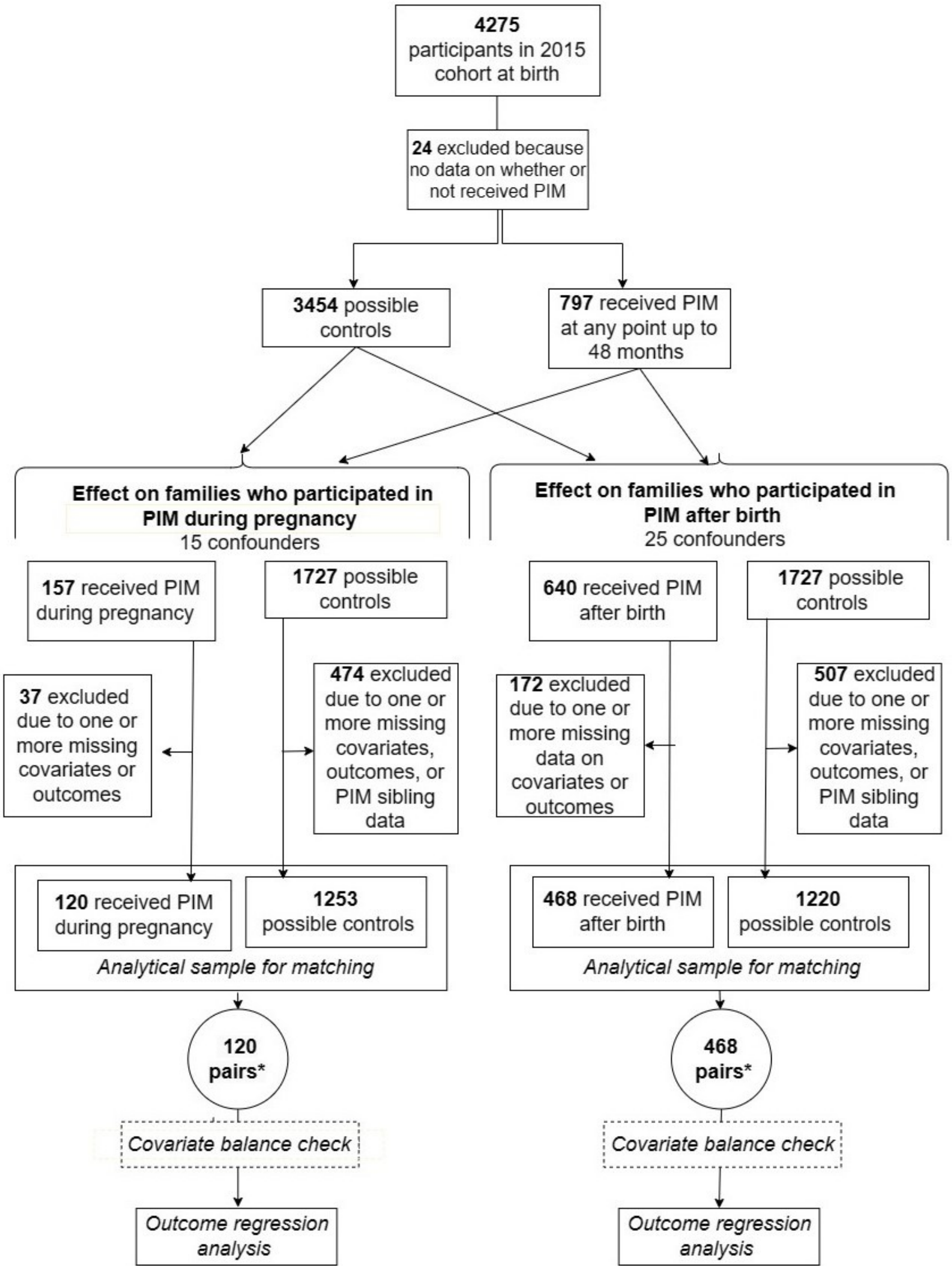
PRE-RECORDED LIGHTNING TALKS

SUPPLEMENTAL FIGURES

Supplemental Figure 1: Flow chart showing numbers of children for whom propensity scores were calculated in stratified analyses for those who **joined PIM during pregnancy vs. after birth** and reasons for exclusion.

PRE-RECORDED LIGHTNING TALKS

Stratified Analysis for families who received PIM during pregnancy vs. after birth



4275 participants in 2015 cohort at birth

24 excluded because no data on whether or not received PIM

3454 possible controls

797 received PIM at any point up to 48 months

Effect on families who participated in PIM during pregnancy
15 confounders

157 received PIM during pregnancy

1727 possible controls

37 excluded due to one or more missing covariates or outcomes

474 excluded due to one or more missing covariates, outcomes, or PIM sibling data

120 received PIM during pregnancy

1253 possible controls

Analytical sample for matching

120 pairs*

Covariate balance check

Outcome regression analysis

Effect on families who participated in PIM after birth
25 confounders

640 received PIM after birth

1727 possible controls

172 excluded due to one or more missing data on covariates or outcomes

507 excluded due to one or more missing covariates, outcomes, or PIM sibling data

468 received PIM after birth

1220 possible controls

Analytical sample for matching

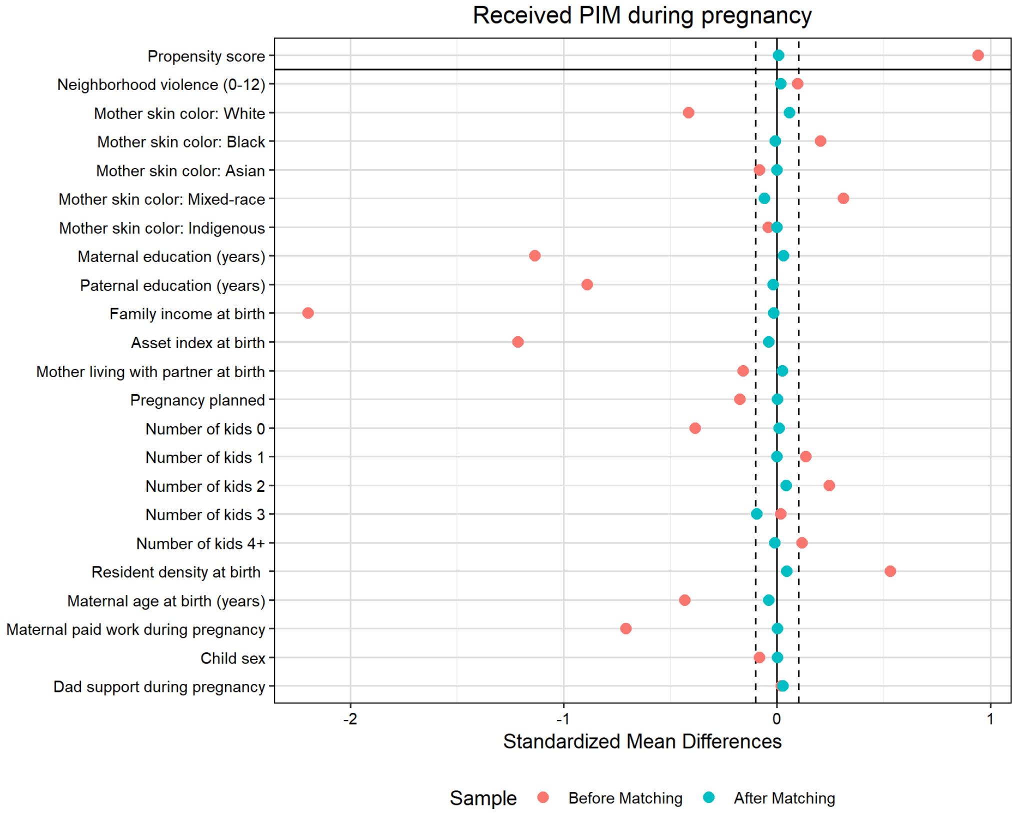
468 pairs*

Covariate balance check

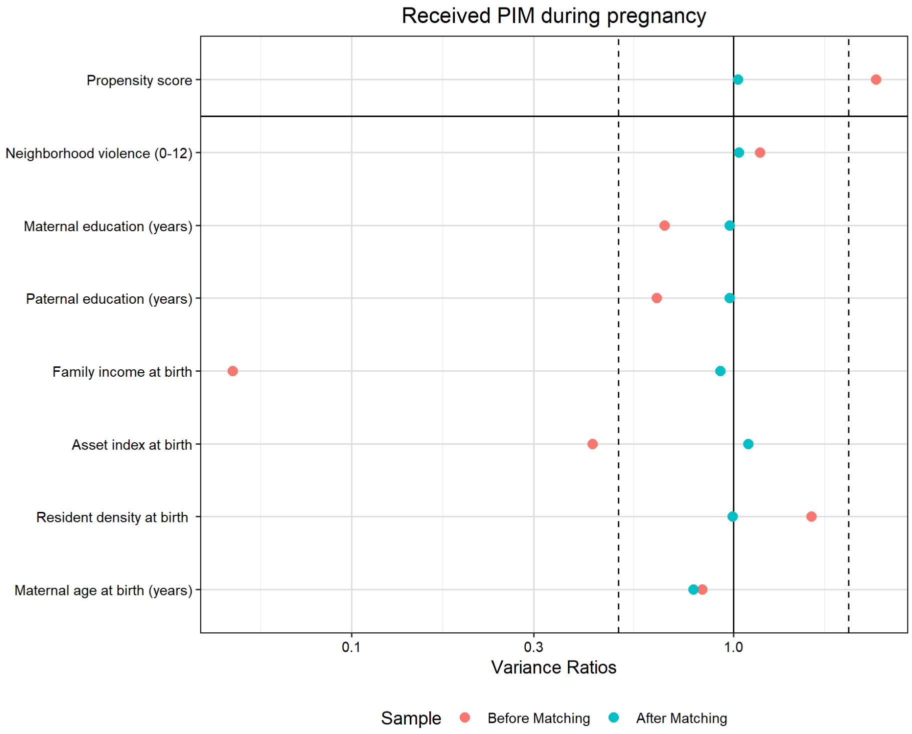
Outcome regression analysis

PRE-RECORDED LIGHTNING TALKS

Supplemental Figure 2A & 2B: Love plot comparison of SMD & VR differences before vs. after propensity score matching in the analysis of **PIM during pregnancy**

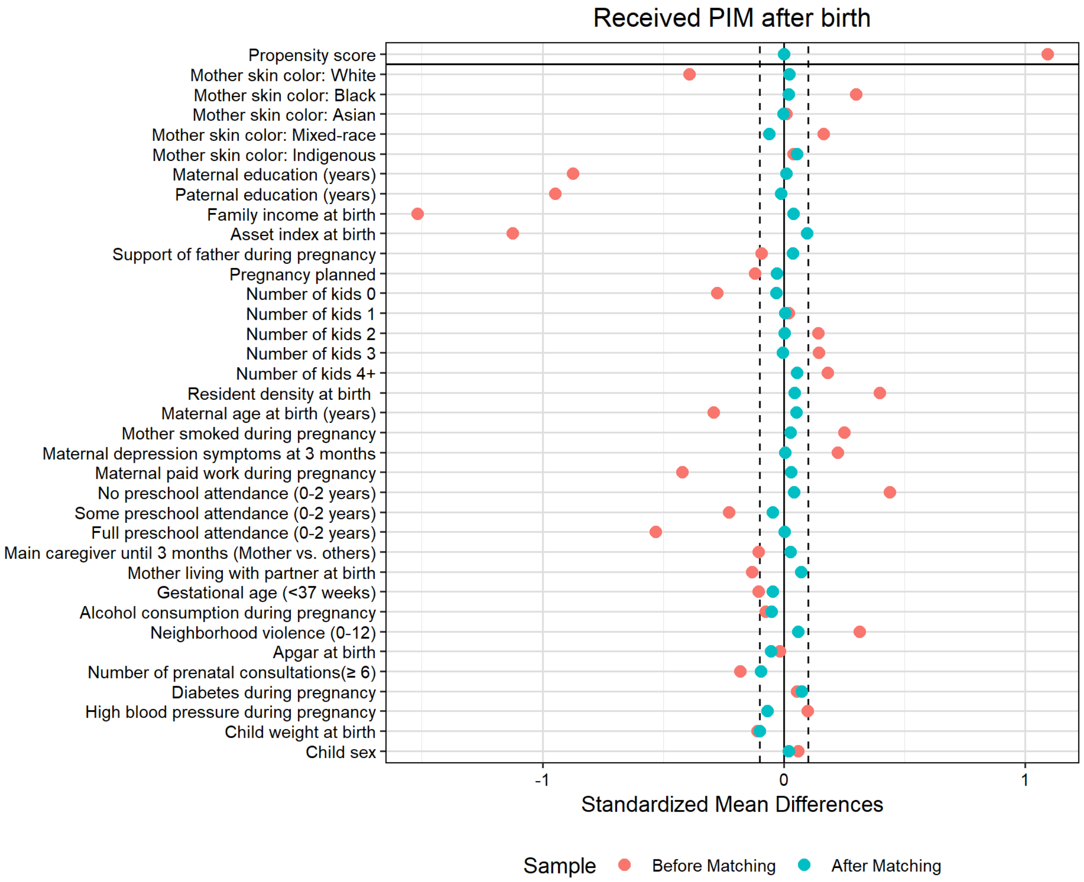


PRE-RECORDED LIGHTNING TALKS

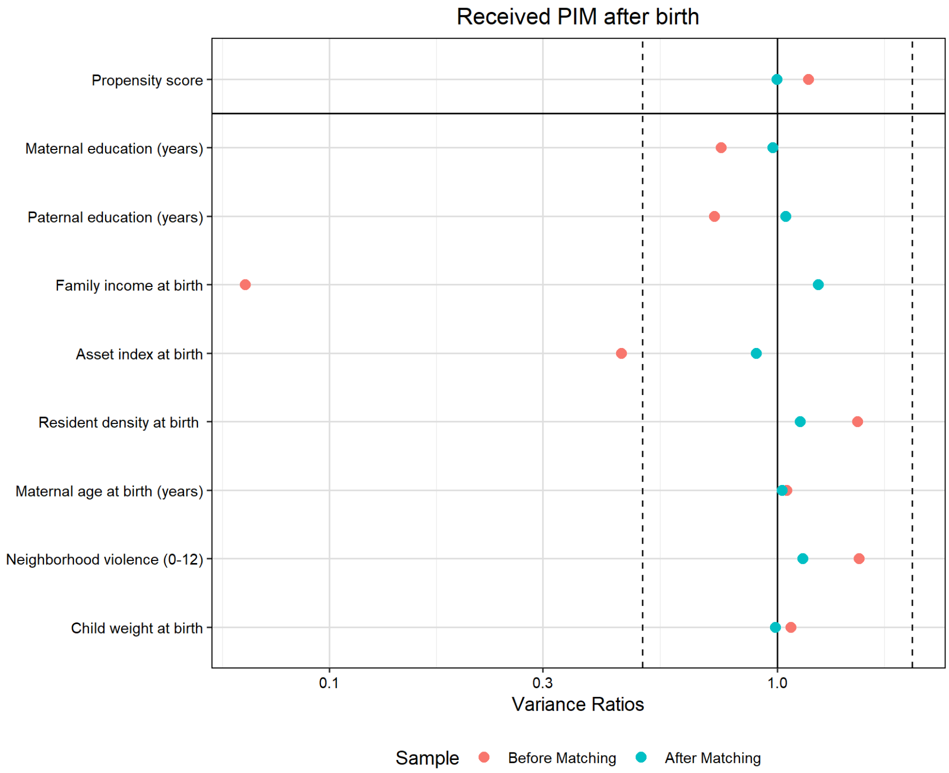


PRE-RECORDED LIGHTNING TALKS

Supplemental Figure 3A & 3B: Love plot comparison of SMD & VR differences before vs. after propensity score matching in the analysis of **PIM after birth**



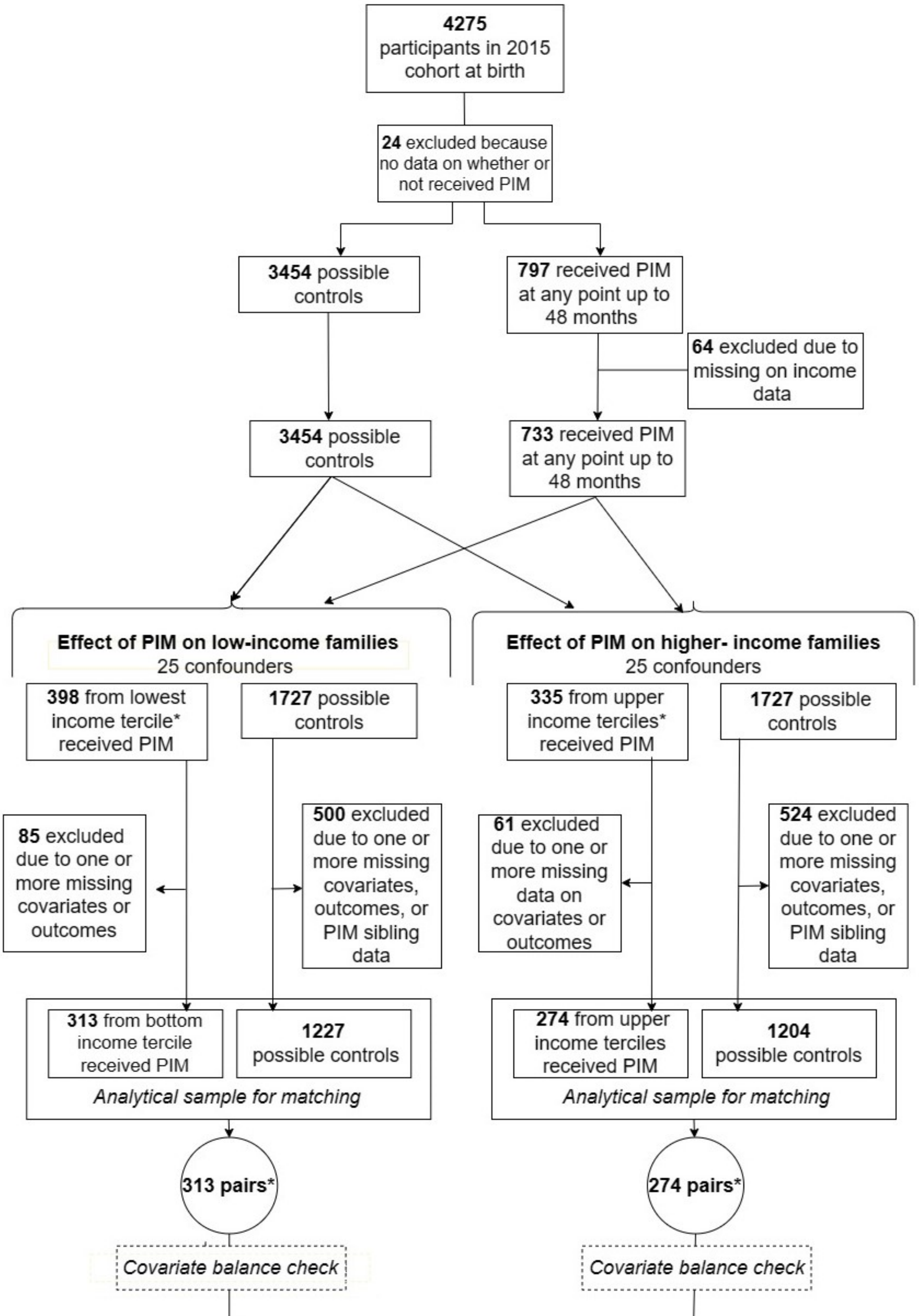
PRE-RECORDED LIGHTNING TALKS



Supplemental Figure 4: Flow chart showing numbers of children for whom propensity scores were calculated in stratified analyses for **low vs. higher income families** and reasons for exclusion.

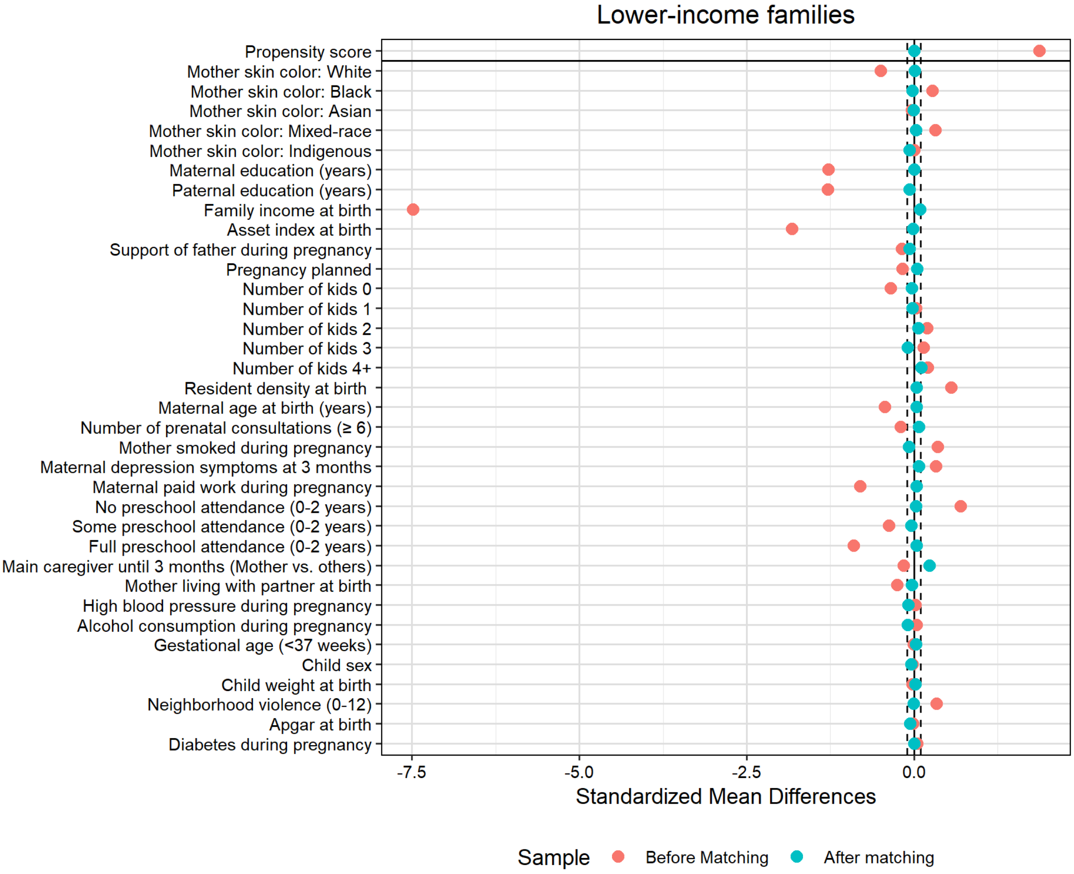
PRE-RECORDED LIGHTNING TALKS

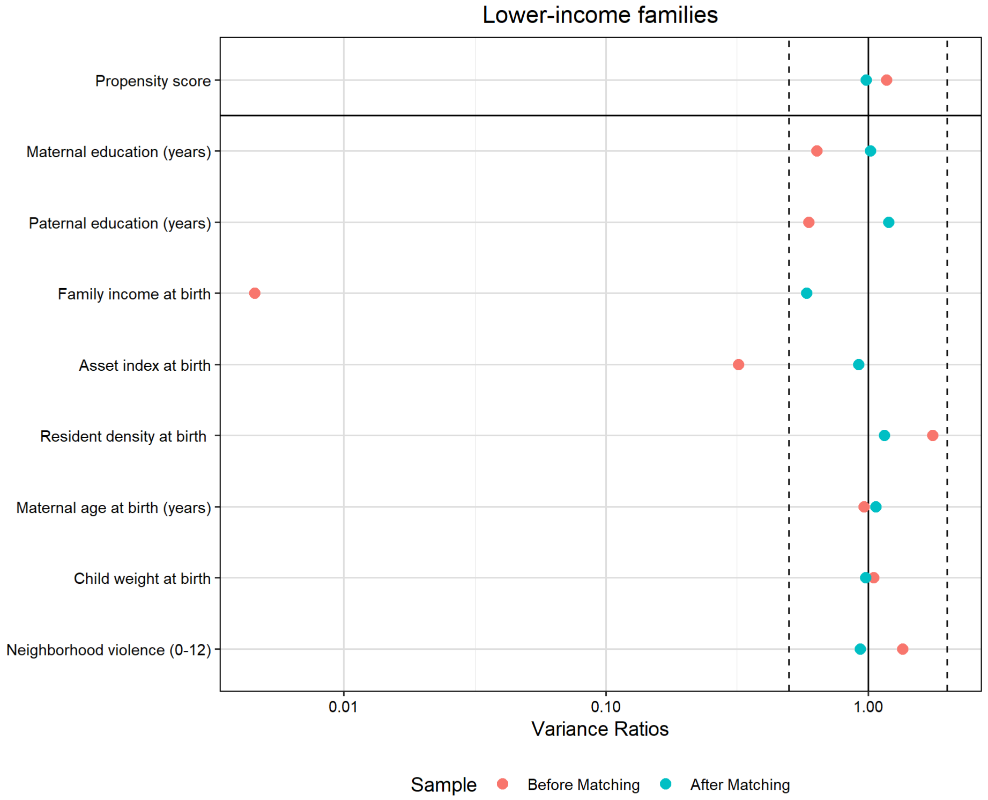
Stratified Analysis in low- vs. higher-income families



PRE-RECORDED LIGHTNING TALKS

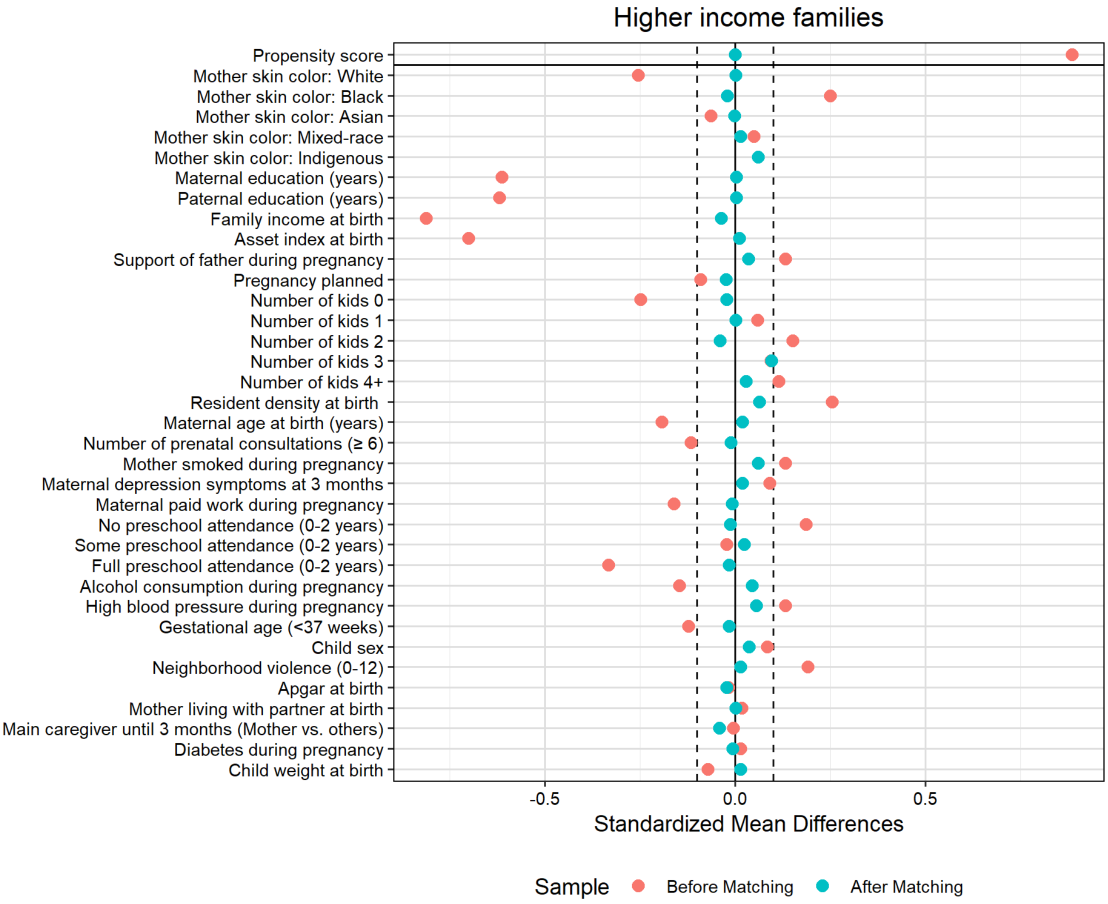
Supplemental Figure 5A & 5B: Love plot comparison of SMD & VR differences before vs. after propensity score matching in the analysis of **PIM on lower income families.**



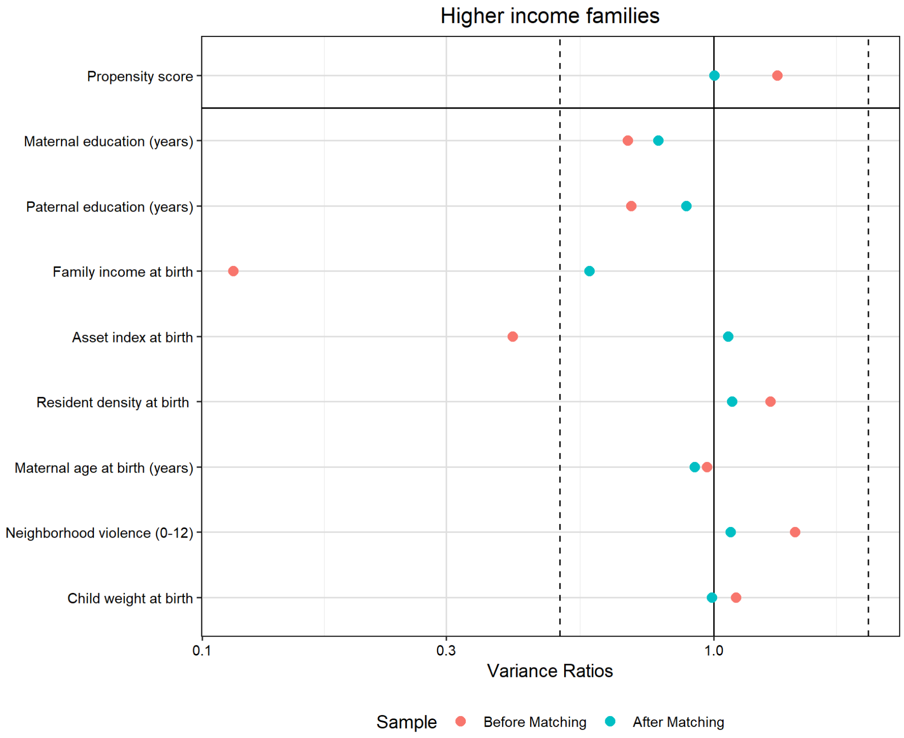


Supplemental Figure 6A & B: Love plot comparison of SMD & VR differences before vs. after propensity score matching in the analysis of **PIM on higher income families.**

PRE-RECORDED LIGHTNING TALKS



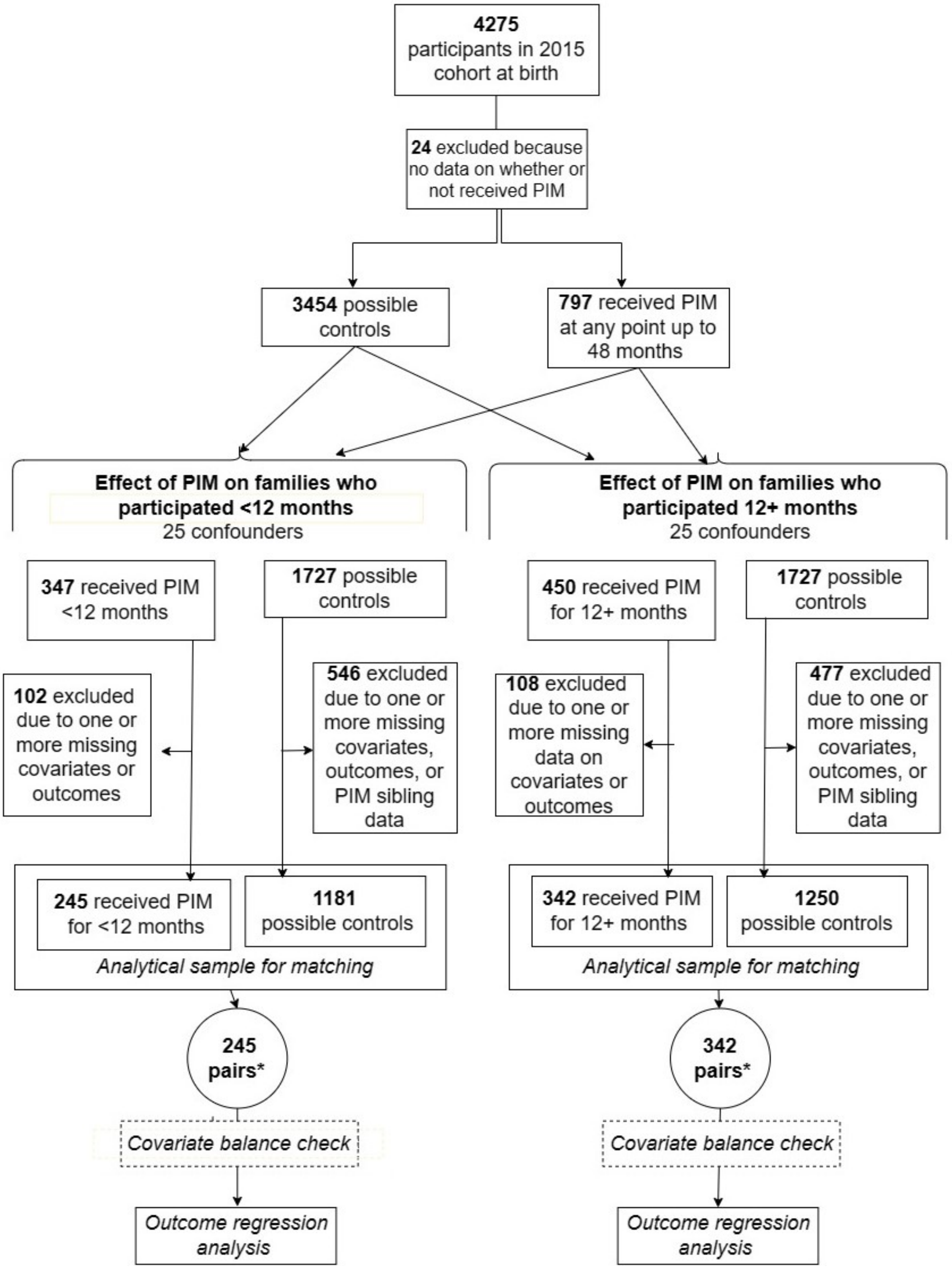
PRE-RECORDED LIGHTNING TALKS



Supplemental Figure 7: Flow chart showing numbers of children for whom propensity scores were calculated in stratified analyses for **families who received PIM for <12 months vs. ≥ 12 months** and reasons for exclusion.

PRE-RECORDED LIGHTNING TALKS

Stratified Analysis for families who received PIM < 12 vs. ≥ 12 months



4275 participants in 2015 cohort at birth

24 excluded because no data on whether or not received PIM

3454 possible controls

797 received PIM at any point up to 48 months

Effect of PIM on families who participated <12 months
25 confounders

347 received PIM <12 months

1727 possible controls

102 excluded due to one or more missing covariates or outcomes

546 excluded due to one or more missing covariates, outcomes, or PIM sibling data

245 received PIM for <12 months

1181 possible controls

Analytical sample for matching

245 pairs*

Covariate balance check

Outcome regression analysis

Effect of PIM on families who participated 12+ months
25 confounders

450 received PIM for 12+ months

1727 possible controls

108 excluded due to one or more missing data on covariates or outcomes

477 excluded due to one or more missing covariates, outcomes, or PIM sibling data

342 received PIM for 12+ months

1250 possible controls

Analytical sample for matching

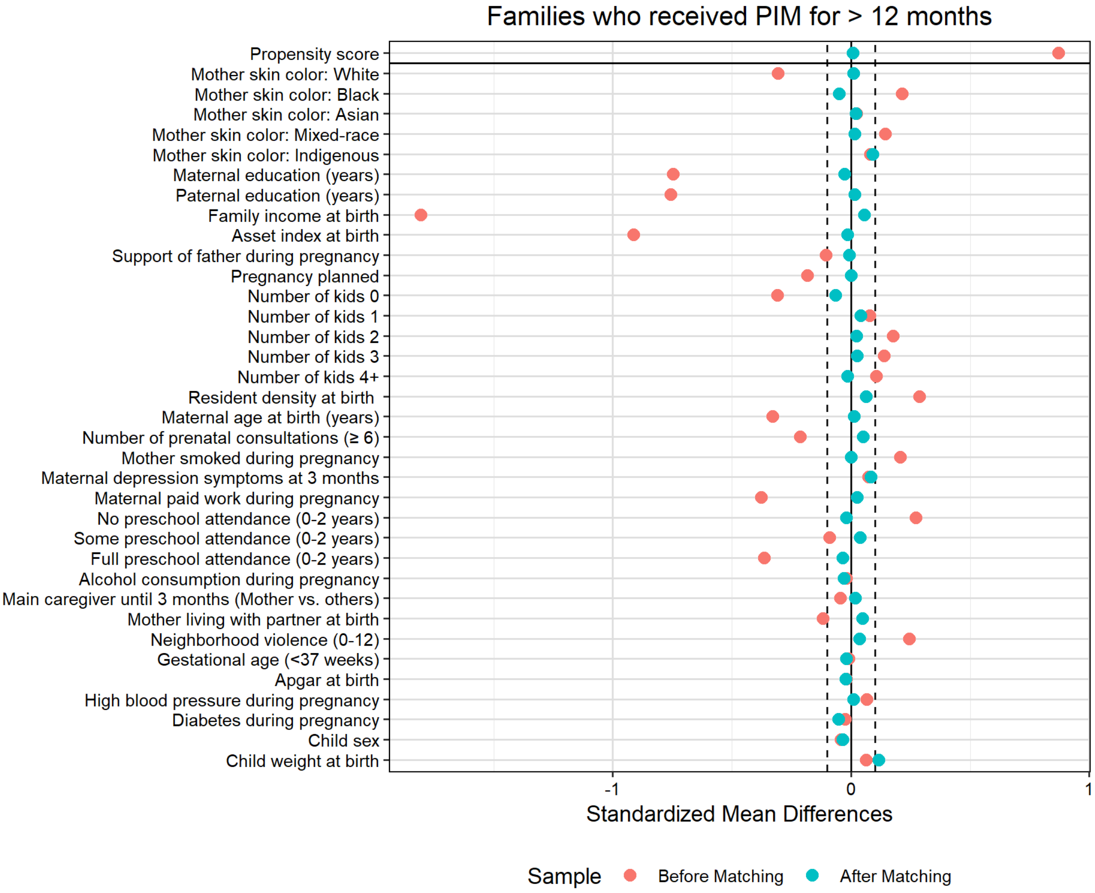
342 pairs*

Covariate balance check

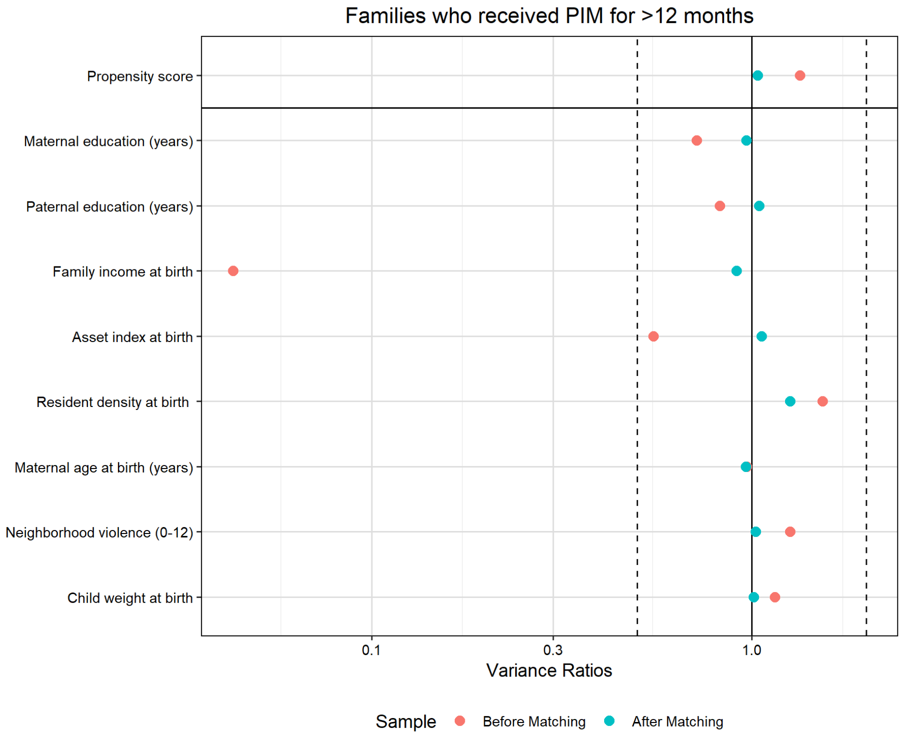
Outcome regression analysis

PRE-RECORDED LIGHTNING TALKS

Supplemental Figure 8A & B: Love plot comparison of SMD & VR differences before vs. after propensity score matching in the analysis of **PIM on families with >12+months program involvement**

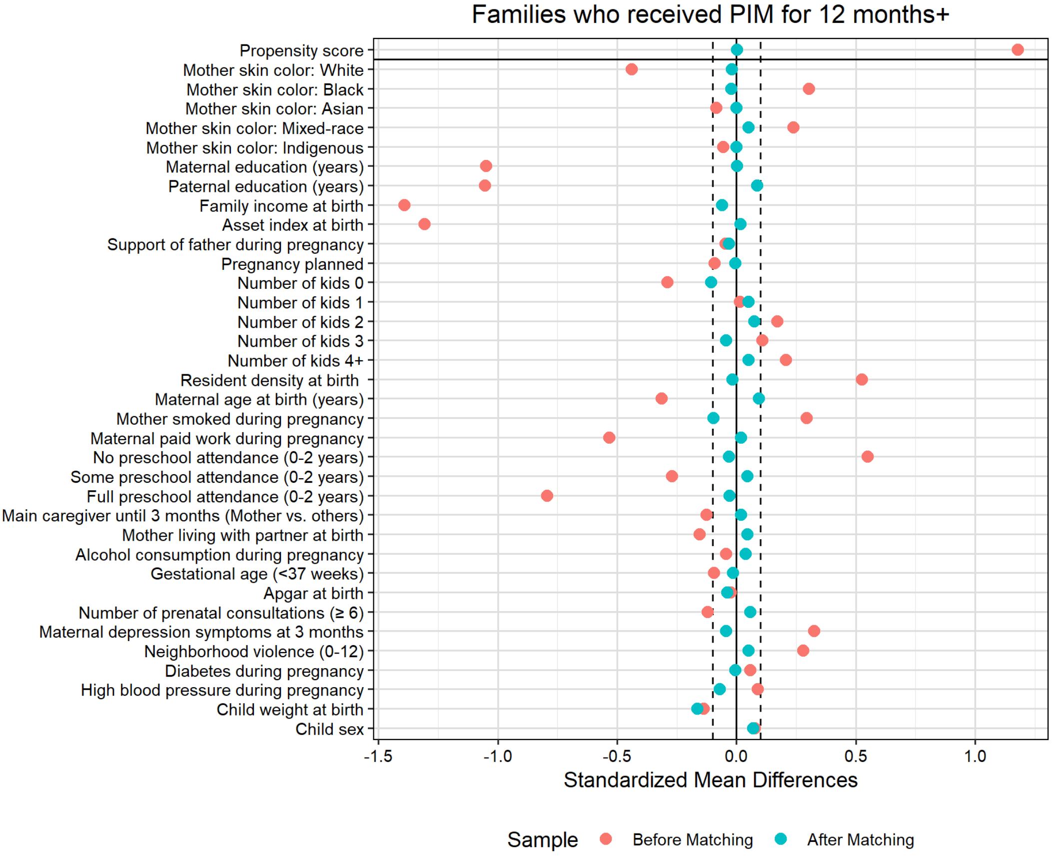


PRE-RECORDED LIGHTNING TALKS

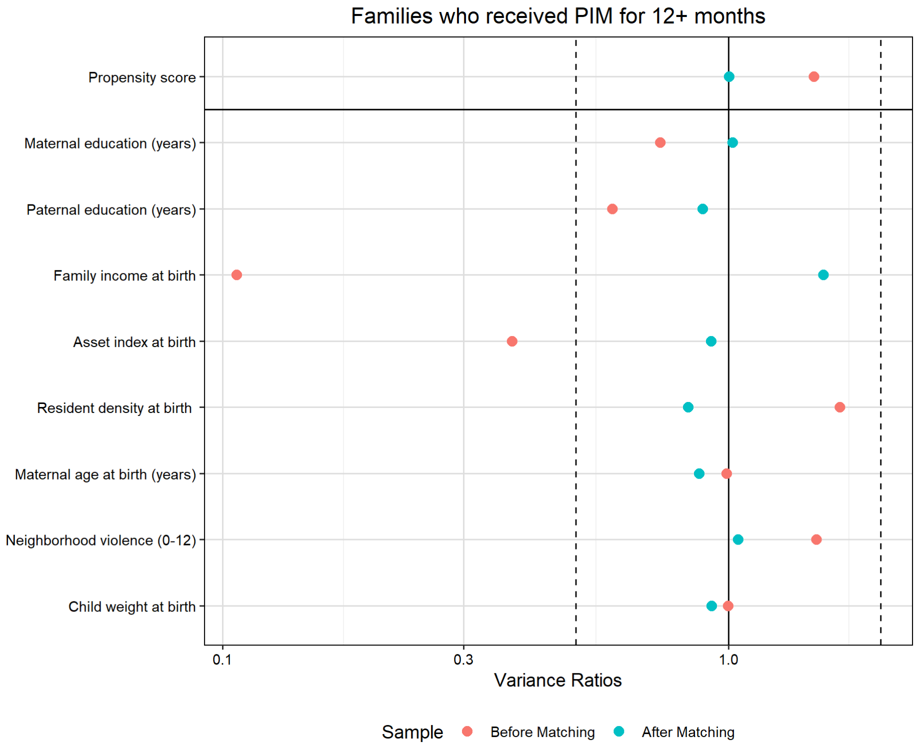


Supplemental Figure 9A & 6B: Love plot comparison of SMD & VR differences before vs. after propensity score matching in the analysis of **PIM on families with 12+ months program involvement**

PRE-RECORDED LIGHTNING TALKS



PRE-RECORDED LIGHTNING TALKS



PRE-RECORDED LIGHTNING TALKS

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PRE-RECORDED LIGHTNING TALKS

#301 - Determining the Barriers and Enablers to Optimizing Primary Care-Directed Hepatitis C Treatment

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Objectives/aims
Since direct-acting antiviral therapy revolutionized hepatitis C virus (HCV) infection management, primary care providers' integral role in global HCV elimination goal and enabling more accessible and sustainable community-based HCV management has become increasingly crucial and instrumental. We aimed to use best practices from implementation science to determine the key factors influencing primary care physicians' provision of HCV treatment and to critically synthesize qualitative evidence on the barriers and enablers to optimizing primary care-directed HCV treatment to inform future implementation interventions.

Methods
In Study 1, we conducted theory-informed interviews with primary care physicians across the province of Ontario in Canada to identify perceived barriers of and enablers to their provision of HCV treatment. The interviews and data analysis were guided by the Theoretical Domains Framework (TDF), which incorporates 33 theories of behaviour change into 14 domains to systematically identify cognitive, affective, social, and environmental influences on health behaviours. In Study 2, we conducted a systematic review of the barriers and facilitators to optimizing primary care-directed HCV treatment using the TDF as the organizing framework. We characterized key determinants of primary care-directed HCV treatment by using the theoretical constructs, generating themes, and mapping themes to relevant TDF domains to identify potential targets for future implementation strategies.

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Main findings
We conducted semi-structured TDF-informed interviews with 20 primary care physicians across the province and found that ‘the knowledge gap of HCV treatment guidelines’, ‘time and resource constraint and competing priorities in primary care’, and ‘consensus on primary care physicians’ professional role in HCV treatment cascade’ were perceived as key determinants of primary care physicians’ provision of HCV treatment in primary care settings. Additionally, our systematic review identified 20 eligible studies and suggested that ‘enabling environment’, ‘primary care capacity’, and ‘HCV treatment competency in primary care’ were the key determining factors to enable the optimization of primary care-directed HCV treatment. ‘Environmental context and resources’, ‘Social influences’, ‘Identity and social professional role’, and ‘Knowledge’ domains were identified as the most relevant TDF domains which need to be addressed to effectively implement primary care-directed HCV treatment in primary care settings.

Our findings provided practical insights into the barriers of and the enablers to optimizing primary care-directed HCV treatment. Future research will focus on developing implementation strategies to tackle the barriers and fortify the enablers of optimal HCV treatment in primary care.

PRE-RECORDED LIGHTNING TALKS

#320 - Digital Intervention for Obesity: Co-Design vs. AI-Driven Effectiveness Research: the DISCOVER Trial

A Hybrid Type 3 Effectiveness-Implementation Trial for Weight Loss in the Portuguese Primary Care

Introduction and Aims

Obesity is a rising major public health challenge, with significant socioeconomic consequences. It affects over 29% of Portugal's adult population and is disproportionally linked to lower socioeconomic status and increased use of healthcare resources. However, the additional care doesn’t positively impact patients' BMI (body mass index) or related outcomes. While effective weight loss treatments are available, pharmacological options lack regulatory approval, and dietary or exercise counseling is limited. Moreover, while BMI measurement serves as a pay-for-performance indicator in primary care, the focus remains on managing comorbidities associated with obesity rather than addressing obesity itself. Healthcare professionals (HCP) limited care and awareness of its importance creates an opportunity to compare novel interventions in this context. This trial aims to establish whether a digital intervention (either co-designed or AI-driven) directed at primary HCP is acceptable, feasible, equitable, and effective for reducing body weight in patients with obesity.

Methods

We propose a type 3 hybrid effectiveness-implementation trial, with a multicenter, stepwise, two-arm, randomized controlled design. The study will take place across seven portuguese local health units, comprising an unselected population of over 1.130.000 individuals, followed on a continuity of care model at 105 primary healthcare centers. Recruited primary HCP will be assigned (1:1) to receive either a brief, point of care, co-designed or AI-driven, digital intervention. The intervention is to be applied to willing patients (individuals over 18 years, with BMI =/>30, that aren’t under other weight loss intervention). The pre-implementation phase will be supported by the CFIR (Consolidated Framework for Implementation Research) framework. The co-designed intervention will be developed by Nominal Group Technique activities with relevant stakeholders (including HCP and obese and ex-obese patients). The implementation of the interventions will be guided by the EPIS (Exploration, Preparation, Implementation, and Sustainment) framework and evaluated by the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) framework. The primary outcome will be weight change at 12-months, through booked appointment at study admission. Other critical questions are: how do HCP feel about AI-driven digital support? How do HCP feel about raising the issue opportunistically and how does this vary by intervention arm? What is the cost per %BMI lost for each intervention? And compared with other weight loss measures (pharmacological or dietician support)? Does this intervention lower obesity inequality in respect to the PROGRESS-PLUS population characteristics? What is the sustainability and fidelity of the interventions 1-year post-implementation? Participants (HCP and patients) will be contacted (post-intervention) to address the interventions' acceptability using the Theoretical Framework of Acceptability.

Expected Findings

The trial results could provide evidence supporting the use of digital interventions targeted at primary HCP to facilitate care for individuals with obesity. In the prevailing context of resource-constrained healthcare systems, this intervention has the potential to emerge as a cost-effective solution when compared to resource-intensive alternatives such as dietary counseling, making the case for its widespread application in the primary care setting. The co-designed version of the intervention might result in improved implementation sustainability by increasing the feeling of “ownership” by HCP towards the intervention. Both versions may contribute, in different ways, to a personalized approach to addressing obesity and weight loss advocacy. The aspiring validation of this digital tool applied through an implementation science strategy, might pave the way for its translation to other knowledge-to-action gaps in clinical practice.

PRE-RECORDED LIGHTNING TALKS

#323 - Addressing CVD prevention through effective implementation of guidelines: Missed and future opportunities.

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Objectives/aims: Cardiovascular disease (CVD) is responsible for a quarter of deaths annually in Australia, but it is preventable through CVD risk assessment undertaken in primary care. CVD risk assessment combines various risk factors to calculate a person's risk of experiencing a heart attack or stroke; the low, medium, or high risk calculated from the assessment guides subsequent management to prevent a CVD event.

CVD risk calculators and shared decision-making tools are essential to this since primary care health practitioners access calculator tools more often than the guidelines themselves; 95% of clinicians use absolute CVD risk calculators but only 72% have seen the national guidelines. As calculators are accessed more often than guidelines, it is essential that these tools are made available, are standardised and consistent with the latest guidelines to reflect latest evidence.

Using the case of recently updated Australian clinical CVD risk assessment guidelines, we will highlight the missed and future opportunities for the implementation of guidelines for this key preventable disease by examining the importance of

- Meaningful and transparent stakeholder consultation
- and the crucial role of CVD risk calculators as a tool for implementation.

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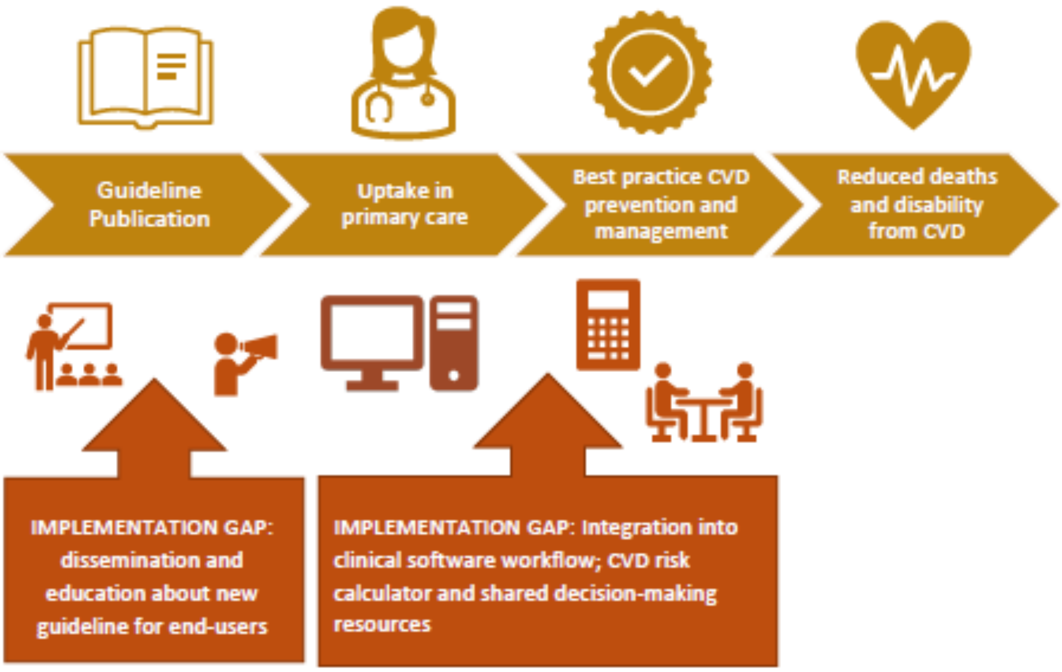
Figure 1: Moving from guidelines to best practice CVD prevention. Red sections indicate current implementation gaps along the pathway to successful uptake of guidelines within primary care.



Methods
We reviewed the missed opportunities in the implementation of past CVD risk assessment guidelines – looking at the current state of CVD risk assessment calculator and who misses out.

In the context of guideline development and subsequent implementation, we explored the function of meaningful and transparent stakeholder consultation and how to leverage sector knowledge appropriately.

We identified future opportunities that an updated iteration of a CVD calculator presents if implementation of recently updated guidelines is undertaken properly. And the importance of de-implementation (risks if we don't)

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Main findings

The absence of a strategy to ensure updated CVD guidelines are embedded **through a CVD risk calculator** within clinical software and workflows will reduce uptake. There is a risk that:

- Outdated and inadequate absolute CVD risk assessment calculators which are currently inbuilt into clinical software will continue to be used, perpetuating shortfalls in CVD risk assessment and missed prevention opportunities. Considering current calculators alone, up to 1 in 8 of the general population at high CVD risk and more than 2 in 5 for the Aboriginal and Torres Strait Islander population at high CVD risk are already not being identified and appropriately treated according to guidelines.
- Recommendations from the current guidelines may be applied inappropriately to people who have had their risk assessed under outdated risk assessment tools. Lifestyle and medication strategies to reduce risk will be inappropriately applied, leading to both under and over treatment and unacceptable variations in care
- Inadequate resourcing for software development of essential tools for CVD risk assessment will result in resources that will not be useable within primary care workflows.

- An implementation strategy to support the new guidelines in primary care is urgently required with CVD risk calculators as centrepiece, including:
- Development of a standardised CVD risk assessment calculator consistent with latest CVD risk assessment guidelines that can be integrated into all software packages and updated easily.
- Concurrently, de-implementation of old and inconsistent calculator tools within packages.
- Development of integrated shared decision-making resources consistent with guideline recommendations.
- Education and awareness campaigns around new guidelines and supporting tools for users.

Conclusion

The uptake of CVD risk assessment guidelines in primary care is reliant upon integration into the clinical consultation workflow. Without this, there is a risk that outdated and inadequate risk calculators will remain in clinical software and perpetuate shortfalls in CVD risk assessment and missed prevention opportunities.

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#331 - Climate Change & RMNCAH (Reproductive Maternal, Newborn, Child, & Adolescent Health): Evidence Gap Map Exercise

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Objectives/aims
This study aims to explore the influence of climate change on Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH) and associated rights. With a specific focus on vulnerable populations—women and children globally—we aim to identify direct and indirect climate change impacts. Our ultimate objective is to strengthen the synergy between climate change, health, and women's and girls' rights advocates, thereby fostering gender-responsive climate action by identifying connections between climate change and RMNCAH across climate action processes. The immediate academic benefit is the synthesis of existing literature on climate change's impact on RMNCAH, producing an evidence gap map and peer-reviewed publications to spotlight current research gaps in knowledge and identify future research areas.

Methods
This project exemplifies interdisciplinary collaboration, linking scholars from five continents -North America, South America, Europe, Africa, and Oceania. This project will comprise three activities: 1) an Evidence-Gap-Map of literature on studies focusing on climate change and its impact on reproductive,
maternal, newborn, child, and adolescent health (RMNCAH); 2) two workshops with key stakeholders,
including policymakers; and 3) a webinar session for graduate students and aspiring public health
professionals to raise awareness on the importance of planetary health.
Evidence Gap Maps (EGMs) are a systematic evidence synthesis product that displays the available evidence relevant to a specific research question. EGM is best suits to identify gaps requiring filling with new evidence, collections of studies for review, and increase the discoverability and use of studies by decision-makers,

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policymakers, and researchers. They present a visual overview of existing evidence using a framework of policy-relevant interventions and outcomes and provide access to user-friendly summaries of the included studies (White et al., 2020). We will follow the standards and methods for EGMs developed by Campbell Collaboration.

Main findings

This project will synthesize knowledge and establish a research team to investigate the impact of climate change on RMNCAH and rights. We expect to find the direct and indirect effects of climate change among vulnerable populations—women, and children globally. Thus, our long-term goal is to enhance collaboration between the climate change, health, and women's and girls' rights advocacy communities and promote gender-transformative climate action by addressing the linkages between climate change and RMNCAH across climate action processes. The short-term scholarly benefit of the project will be the compilation and synthesis of all available literature on the impact of climate change on RMNCAH. The deliverables from this project will be the development of an evidence gap map and publications in peer-reviewed journals, which will identify current gaps in the literature and map areas for future research. Our research team meeting will result in a funding proposal for a larger project to explore effective adaptive strategies to respond to climate change and also improve RMNCAH. We will also develop a policy brief for major national and international agencies (e.g., Public Health Agency of Canada, World Health Organization, United Nations Population Fund, United Nations Children's Fund) to invest in research to address evidence gaps and integrate the analysis of RMNCAH and climate data.

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#348 - Evidence, impact and humanitarian health: Learning from R2HC's case studies

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Objectives/aims

- Share learning from the process of evaluating and documenting impact of 20 R2HC-supported research projects on humanitarian health policy, practice, and programming.
- Share a proposed ‘Research Impact Framework’ for discussion and potential use by funders, researchers and their partners

Methods

- Case study evaluations of 20 individual research grants (modified Contribution Analysis- key informant interviews supplemented by documentary validation)
- Case studies cover a range of health topics, research designs, and locations/geographies across countries affected by crisis
- Studies are all partnerships between research institutions and operational humanitarian partners (INGOs, UN agencies, local NGOs and governments)
- Analysis of multiple case studies to identify key themes, impact types, common success strategies and contextual enablers of research impact
- Research impact is understood to be changes for humanitarian health stakeholders, utilizing four types of research impact: conceptual, instrumental, capacity, enduring connectivity.

PRE-RECORDED LIGHTNING TALKS

Main findings
While humanitarian research and the evidence base has grown over the past decade, responding to demand, the impact of that research on humanitarian policy and practice has not kept pace. There are multiple barriers for humanitarian researchers and their partners in translating evidence into use. Practical guidance to produce research with greater impact is sought after by researchers and their partners.

The collective insights of the impact case studies (as well as learning from the R2HC programme and the literature), leads us to propose an ‘Research Impact Framework’ for researchers, funders, and humanitarian partners interested in strengthening the impact of research for humanitarian health response.

The Framework outlines success strategies (proactive approaches) that researchers can use to deliver research impact, and enablers (outside the control of research teams) which can facilitate evidence-to-practice impact pathways.

The Framework is shared for immediate use, as well as to prompt dialogue which can inform improvements of the Framework itself and the development of further useful tools for the humanitarian health research community.

The Research Impact Framework and impact case studies can be found at www.elrha.org/researchdatabase/research-impact-framework/. We look forward to feedback and dialogue with EIS attendees.