



# The KidScope Study: An Analysis of a Community Paediatric Clinic Set in a Disadvantaged Area of Ireland

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## Abstract

The most critical period of human development is from conception to age six years when important brain structures develop. These structures influence child development, well-being, learning, and behaviours that follow. Research shows children from economically disadvantaged areas have poorer developmental, health, and lifelong outcomes. A considerable proportion of developmental delay is avoidable and early detection and intervention can improve child, family, and community outcomes. Ireland's disjointed early intervention system sees children from more affluent communities access services faster through paid private assessment and intervention. KidScope is the only community paediatric clinic in Ireland to offer assessment and onward referral from birth to six years within a disadvantaged area. The clinic intercepts the gap within the early intervention system and breaks the cycle of intergenerational poverty by disrupting the impact exclusion to healthcare has on vulnerable children and families. We aim to evaluate KidScope in order to contribute to the evidence on addressing avoidable developmental delay in disadvantaged areas through early detection and timely referral to services. Findings to date highlight the challenges vulnerable families face when accessing paediatric healthcare, the healthcare needs of children experiencing adversity, and how community paediatric clinics identify and support developmental delay.

*Keywords: child health, child health services, vulnerable populations, disadvantaged communities, child development, development delay.*

*“There can be no keener revelation of a society’s soul than the way in which it treats its children”*

— Nelson Mandela

## Introduction

The most critical period of human development is from conception to age six years during the development of important brain structures. How well these structures form influence development, well-being, learning and behaviours that follow. Studies have shown children growing up in poverty perform less well in school and enter an inter-generational cycle of reduced employment, higher fertility, and health inequalities. Developmental delay refers to when a child’s progression through predictable growth phases slows, stops, or reverses. If untreated, delays in development can have significant consequences on an individual’s developmental trajectory. A significant amount of developmental delay is avoidable, and early detection and intervention can improve child, family, and community outcomes. Studies show that over time improvements resulting from the timely implementation of services can ease the financial burden on healthcare systems. Early intervention services in Ireland are delivered with wide variation and no national consistency, resulting in children from more affluent areas accessing services faster than those from disadvantaged areas through paid private assessment and intervention. A gap in the system exists for disadvantaged families who do not have the means to access services privately.

### *Closing the Gap in Health Inequalities*

The World Health Organisation report that one of the most efficient ways of ‘closing the gap’ in health inequities is to address the needs of those who are most disadvantaged. Given the many health risks associated with social disadvantage, strategies to promote child health and well-being must go further than the traditional medical setting and involve community policies that change the broader environments in which children live. Community paediatric clinics treat unwell children, identify and monitor developmental delay, deliver child health promotion services, provide counselling and advice, and refer to other health professionals. Clinics are delivered in communities by a consultant paediatrician and multidisciplinary team who work across agencies with local therapists, nurses, schools, social services, the voluntary sector, and local authorities to support vulnerable children and their families.

### *The KidScope Clinic*

KidScope is a community paediatric clinic that offers medical and developmental care for children from birth to six years living in the disadvantaged area of Cork city northwest. A study conducted in this community which examined social and emotional, language, and literacy levels shows children are underachieving in developmental domains and experience poor educational and health outcomes. Also a medical student training clinic linked to University Col-

lege Cork, KidScope is delivered by a Consultant Paediatrician and uses a multi-disciplinary, multi-agency approach that provides a wrap-around support service for children and families.

### *Evidence to Date*

Much of the literature on community paediatric clinics highlights their benefits in terms of increasing parental choice and access to paediatric consultancy services, increasing service flexibility, reducing unnecessary hospital visits, and enabling more rational and relevant clinical decision making. Research on paediatric clinics has focussed largely on out-patient clinics located in primary care settings. Many studies have concentrated on the detection and rates of illness rather than the way these health services are delivered. Gaps in the research highlight the need for high-quality comparative studies of community clinics in disadvantaged areas where outreach may be of most benefit for child and family outcomes.

### *Study Rationale*

KidScope is the only community paediatric clinic in Ireland to offer assessment, consultation, and onward referral of children from birth to six years within a highly vulnerable community. A gap in the current early intervention system sees children from more affluent areas of Ireland access intervention services faster than children from disadvantaged areas. This study examines the role KidScope plays in intercepting this gap. Evidence shows successful implementation of any intervention is fully dependent on the availability of appropriate skills, structures, and organisational supports within the local context. The KidScope Study will examine the way in which KidScope is delivered, the context in which it is set, its impact on child and family outcomes, parent/caregiver perspectives of attending the clinic, and medical student training and education.

### *Study Aim and Objectives*

We aim to evaluate the KidScope clinic in order to contribute to the evidence on best practice in addressing avoidable developmental delay in disadvantaged communities through early detection and timely referral to services. Our main objectives are:

1. To understand how KidScope is delivered in the context of international best practice in supporting healthy child development.
2. To conduct a stakeholder analysis to examine the development and implementation processes of KidScope
3. To examine pathways and supports for children with developmental delay by comparing KidScope to a hospital paediatric development clinic.
4. To capture the experiences of medical students training in KidScope, and the perspectives of parents and families who attend the clinic

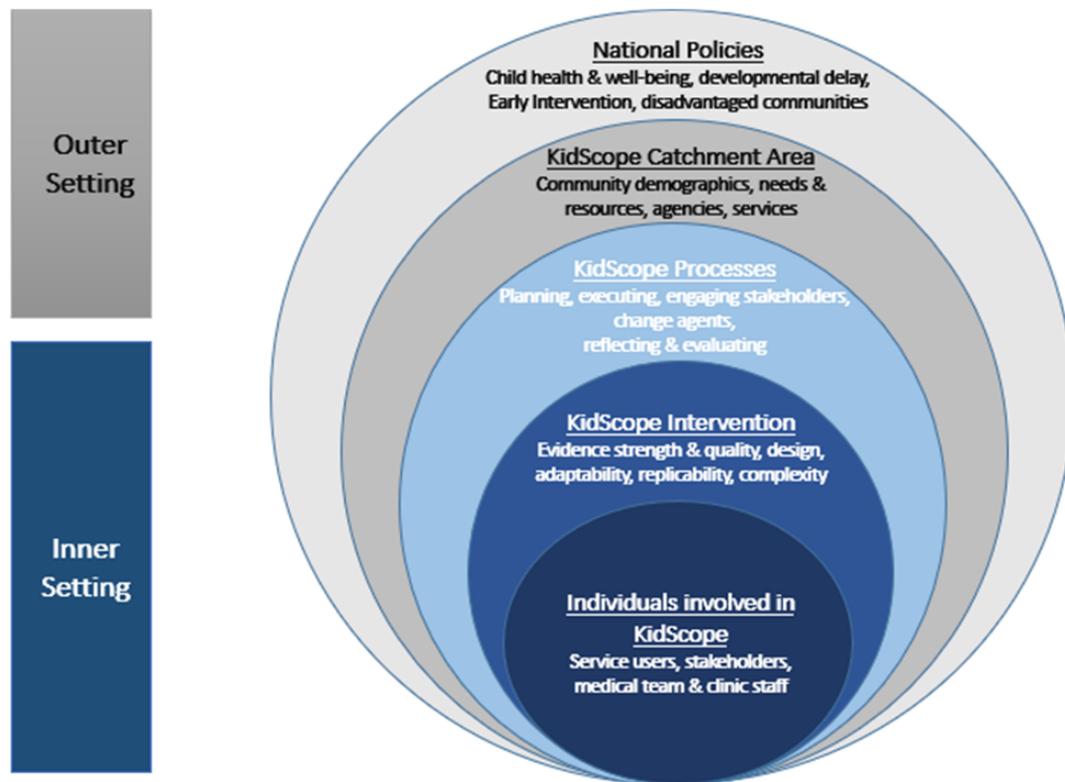


Figure 1: The KidScope Study Framework, an adaptation of the CRIF Framework (Adapted from Damschroder, et al., 2007)

## Methods

**Study Design.** A mixed methods study design is used for the research whereby we collect, analyse, and combine elements of quantitative (numerical) research and qualitative (experiences/perspectives) research in order to answer the research questions. The PhD project consists of four studies in total.

**Theory Supporting Our Research.** We have chosen an underpinning theory to support our research which helps us explain our findings and ‘how’ and ‘why’ things happen the way they do. The theory supporting our research is based on the assumption that the same intervention does not work everywhere and for everyone. This underpinning theory supports tracking outcomes, mechanisms that produce the outcomes, settings in which mechanisms are delivered, and the content of interventions.

**Guiding Framework.** We have chosen a framework, rooted in research evidence, to help structure and guide our research efforts (Figure 1). This framework has allowed us to map KidScope activities, therefore providing a practical structure to research this complex, interacting, multi-level, and ever-changing clinic.

### Study 1

We identified, evaluated, and summarised published studies conducted nationally and interna-

tionally on the topic. We aimed to answer the question, what role do community paediatric clinics play in supporting developmental outcomes and services for children living in disadvantaged communities? Electronic databases were searched. Validated tools and appropriate guidelines assessed the quality and confidence of the evidence emerging from each study. Data analysis and summary was guided by an evidence-based framework. Eighteen studies were selected for inclusion. Areas of emphasis in the literature include the identification and monitoring of developmental delay, referral to early intervention services, engagement of vulnerable families, parental empowerment, practitioner capacity building, ways in which clinics are delivered, and tackling barriers to healthcare access. Findings show community paediatric clinics engage vulnerable families, identify childhood developmental delay, and facilitate increased referrals to early intervention services.

### *Study 2*

This study is currently ongoing and explores the roles and perspectives of stakeholders involved in KidScope. It consists of two sub-studies. **Sub-study 1** maps the people and services involved in the development and delivery of KidScope. The aim is to understand the way in which KidScope is delivered, the processes used for development and delivery, and the policy context in which KidScope is implemented to inform future health policy decisions regarding the implementation of community paediatric clinics in disadvantaged communities. **Sub-study 2** examines parent and caregivers' engagement with KidScope through linked community child development supports. This study provides insight into parents and caregivers' perspectives of community child development supports and the way in which KidScope is delivered. A **Community Advisory Group**, made up of local parents and community practitioners, was set up to advise on the planning and design of both sub-studies.

### *Study 3*

Study 3 is currently ongoing and aims to examine pathways and supports for children from birth to six years with developmental delay by comparing the KidScope community paediatric clinic to a hospital-based paediatric clinic. We aim to capture information about the children who attended both clinics through examining medical files, and to capture parent/caregiver experiences by conducting interviews with families. Child data will shed light on the 'what' or 'how many' aspects of the research question and parent/caregiver feedback will ensure that findings are grounded in child and families' perspectives and experiences of both clinics. It is thought that the KidScope community clinic, which offers a wrap-around system of support to children through a multi-disciplinary and multi-agency approach, facilitates increased communication among services, providing additional support to children and their families.

### *Study 4*

Study 4 examined medical students' experiences of training within KidScope. Undergraduate medical training in Ireland comprises of clinical training largely within teaching hospitals, with

less emphasis on training in community settings. The aim of this study was to capture the experiences of medical students and to gain insight into the perceived impact of community training on undergraduate medical education. We used a mixed-methods research design. Thirty-two students completed an online questionnaire, and reflective essays from twenty students were examined. Results show KidScope provided a novel opportunity for students to apply clinical knowledge and skills and enhanced their understanding of child health and development. Engagement with vulnerable children and families in the community increased medical students' knowledge, informed professional practice, and heightened awareness of social deprivation and its impact on child development. Students' understanding of effective models of community paediatrics was also broadened.

## Main Findings to Date

- Community paediatric clinics engage vulnerable families, identify childhood developmental delay, and facilitate increased referrals to early intervention services.
- This type of paediatric healthcare in the community can better meet the needs of vulnerable populations.
- Exposure to a community paediatric clinic influences undergraduate medical student training through experiential and transformative learning.
- Our experience of teaching clinical skills in the community could be replicated in different fields of medicine to the benefit of the wider community.

## Conclusion

Our study offers insights into how KidScope contributes to breaking the cycle of intergenerational poverty by disrupting the impact exclusion to healthcare has on vulnerable children and families. When complete, it will provide a template for the development and delivery of an effective paediatric healthcare model in disadvantaged communities.

### *Contribution to Knowledge*

Our study contributes to knowledge in several ways:

1. **Access to healthcare.** Evidence shows families from disadvantaged areas encounter more challenges when attending paediatric healthcare appointments. Our study highlights the importance of community clinics in facilitating increased access by families living in disadvantaged areas to high-quality paediatric healthcare in their locality
2. **Models of community healthcare.** Our findings offer insight into a different way in which paediatric healthcare can be delivered, and how more complex healthcare interventions like KidScope can be delivered in disadvantaged areas.

3. **Patient and Public Involvement (PPI).** Inclusion of the community voice in research design through use of a Community Advisory Group has contributed to participant friendly, ethically sound research.
4. **The role of stakeholders in health system reform.** Engaging stakeholders from a range of organisations is essential to successful healthcare quality improvement. Gaining stakeholder and parent/caregiver perspectives informs the direction of future research on this topic.

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## Declarations of interests

There are no competing interests to declare

