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Home visiting for a better start in life: Studies of an intervention to promote health equity in a socioeconomically disadvantaged area of Sweden

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HOME VISITING FOR A BETTER START IN LIFE

STUDIES OF AN INTERVENTION TO PROMOTE HEALTH EQUITY IN A SOCIOECONOMICALLY DISADVANTAGED AREA OF SWEDEN

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By

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To my family

POPULAR SCIENCE SUMMARY OF THE THESIS

In 2013, a home visiting programme was started in the community of Rinkeby in the northwest of Stockholm, Sweden. It was offered to all new parents who registered at Rinkeby child health care (CHC) centre, and it contained six visits, from when the child was newborn to 18 months of age. This programme was an addition to the national CHC programme, and the visits were carried out by CHC nurses working in pairs with parental advisors (social workers), from the preventive social services. The programme was developed as an answer to the higher needs of support among Rinkeby families, the large majority of whom have foreign background, and many are new in the country. Rinkeby is an area with worse socioeconomic situation, compared to the average of Stockholm county, and the health of the population, including young children, is also below the county average. The initiative of collaboration between the CHC and preventive social services, to offer home visiting in early childhood, was new in the Swedish context.

Home visiting is an intervention that has been recommended by research, to give extra support to parents and children during the period of early childhood, which covers the time from pregnancy to three years of age. This period has been recognized as important, because healthy development during the first years gives better chances of good health for the rest of life. It is also an important period for interventions to prevent health inequities. Inequities in health are those differences in length of life and health, between different groups in society, that are caused by social rather than by biological factors. Social factors that influence health are present in many ways, such as in the places where people live, where they work and their access to health care. Health inequities are systematic differences in health that can be seen in different socioeconomic groups, where health worsens gradually moving down the social ladder.

There has not been much research done on early childhood programmes with a focus on health inequity, and there is a need to get better understanding of how such programmes work in practice. Therefore, this thesis has aimed to increase knowledge of how the Rinkeby programme has been structured and carried out, and how it is supposed to produce results that in the end reduce health inequities. It has also investigated how challenges in the families' life situations, in different ways, may lead to health inequities. This research project applied qualitative methods that are suitable to investigate and describe situations and processes involving human behaviour and relations. Information for the studies was collected by analysing documents, through interviews with professionals and managers in the programme, and also by observing some home visits.

The studies found that the home visits focused on the child and parents, dealing with issues of health, care and development, parenting practices, also including the family's living situation, and how to get help when needed during this period. The professionals offered a wide range of information and support that was adjusted to the needs of each family. The skills of the two qualified professionals working together, were considered to be central to the

development of the programme. It was also considered important that the home visiting intervention was closely connected to the general CHC programme and the parenting support of the preventive social services. Furthermore, the studies showed that the programme was expected to reach its overarching aim to reduce health inequities, via the strengthening of positive parenting practices; children's good health and development; by families accessing and using welfare services when they needed; and through integration and participation in society. Still, with regards to health inequities, the research project found that there was a diversity of challenges in the lives of the families, related to insecure financial and housing situations; crowded and poor living conditions; social isolation; difficulties in accessing resources and services; and experiences of segregation, which were all observed to have negative influence on health. Additional negative influences on these situations could be observed during the Covid-19 pandemic.

The research project concluded that the home visiting programme in Rinkeby was an intervention that could offer extra, qualified support, adjusted to the needs of the families. It was understood to create better conditions for health equity among the children in Rinkeby, but that other additional efforts are necessary. These efforts regard favourable macro-policies as well as a network of services that can provide diverse support to families when needs arise during the period of childhood.

ABSTRACT

Background: Early childhood is considered to be a crucial period for ensuring health over the life course of an individual. It is also a prioritized period for policies to reduce socially determined health inequities. Extended home visiting in early childhood is a recommended intervention to promote responsive parenting practices, and good health and development from the start of life. To reduce health inequities, international reports on the social determinants of health, have recommended the adoption of Proportionate Universalism, which implies guaranteeing the population's universal access to welfare services, while offering targeted support to those groups with higher needs.

An extended home visiting programme in early childhood was initiated in 2013, in a socioeconomically disadvantaged community of Stockholm, Sweden. As a collaboration between the child health care, and preventive social services, it aimed to act on the higher needs observed among the families, and to reduce the health gaps between children living in different socioeconomic circumstances in the county of Stockholm. The home visits were delivered by pairs of child health care nurses and parental advisors (social workers), and it was the first such initiative in the Swedish context. The intervention was embedded in the national child health care programme, and thus considered to represent targeted support within a universal framework, as proposed in Proportionate Universalism.

Little research exists on interventions aimed to reduce health inequities from early childhood, and there is also an acknowledged need to deepen the understanding of pathways from socioeconomic disadvantage to health inequities from early life. When investigating interventions, it is important to identify their different components, as well as the theories of how and why they are supposed to create the desired effects.

Aim: The aim of this doctoral research project was to increase knowledge on the design and implementation of a multisectoral, early childhood home visiting intervention, developed to promote health equity in a socioeconomically disadvantaged setting in Sweden.

Methods: Qualitative research methods were applied in the studies of this research project. Investigations into the content and work methods of the intervention, were made through analysis of documentation of home visits, semi-structured interviews with professionals working in the programme, and observations of home visits. Semi-structured interviews with the professionals also generated data to explore how challenges in daily life of the families might lead to health inequities for children. Analysis of published documents produced an initial mapping of the intervention and semi-structured interviews with managers and other key actors rendered a final version of core components and programme theory of the intervention. The analyses were carried out using Data-driven Conventional Content Analysis, Constructivist Grounded theory, Reflexive Thematic analysis, and Framework method.

Results: The studies showed that the home visits contained contents regarding the health, care and development of the child; parenting and parenting practices; and the aspects in the families' surroundings that influenced and supported them. The visits covered health promotion, prevention, early detection of adversities, psychosocial support and helping the families access additional resources. The studies also indicated that the content and work methods were flexible and families who have extra needs received additional adjusted support. The intervention was found to consist of five core components related to the additional support in the home environment; the qualified team of professionals; the flexibility of content; the child focus and parent-strengthening approach; and the scope of the work methods. From these core components, the intervention was supposed to generate positive effects on children's health and development; parents' health and responsive parenting practices; and families trust in and use of welfare services. Integration and families' active participation in society were longer term expected effects, and the reduction of health inequities was the perceived overarching aim in the interventions programme theory.

The study findings also included the identification of five pathways from different situations of low control in the families' lives, that could negatively affect the health and wellbeing of parents and children, and cause health inequities. They regarded instability and insecurity, such as financial and housing; crowded and poor housing conditions; social isolation; restricted access to services; and experiences of segregation. The event of the Covid-19 pandemic was observed to have added negative influence over the families in multiple ways. The interviewed key persons considered that the intervention had the capacity to create better conditions towards health equity, but also recognizing the influence of structural determinants. The intervention was understood to be one part of a larger systemic effort needed to reduce the health gap.

Conclusions: The contents and work methods that have been developed and are implemented in the programme, are in line with the international recommendations for early childhood interventions. They also correspond well to recognized components of effective early childhood home visiting. The intervention reflects the principles of Proportionate Universalism, and it can be considered to have capacity to reduce the influence of some of the mechanisms that drive health inequities in early childhood. However, the findings are also in agreement with current research, when recognizing the complexity of the workings of the social determinants, and the large influence of structural determinants on health inequities. The findings support recommendations of favourable macro policies, general access to universal welfare, as well as multisectoral resources that can provide comprehensive additional support to families when needs arise at any point during childhood.

LIST OF SCIENTIFIC PAPERS

I. **Barboza M**, Kulane A, Burström B, Marttila A. A better start for health equity? Qualitative content analysis of implementation of extended postnatal home visiting in a disadvantaged area in Sweden. Int J Equity Health. 2018;17(1):42.

II. **Barboza M**, Marttila A, Burström B, Kulane A. Contributions of Preventive Social Services in Early Childhood Home Visiting in a Disadvantaged Area of Sweden: The Practice of the Parental Advisor. Qual Health Res. 2021:1049732321994538-.

III. **Barboza M**, Marttila A, Burström B, Kulane A. Covid-19 and pathways to health inequities for families in a socioeconomically disadvantaged area of Sweden – qualitative analysis of home visitors' observations. Int J Equity Health. 2021;20(1):215.

IV. **Barboza M**, Marttila A, Burström B, Kulane A. Towards health equity: Core components of an extended home visiting intervention in disadvantaged areas of Sweden. [Manuscript].

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LIST OF ABBREVIATIONS

ACE	Adverse childhood experience
CFIR	Consolidated Framework for Implementation Research
CHC	Child health care
ECD	Early childhood development
MIECHV	Maternal, infant and early childhood home visiting
SECs	Socioeconomic circumstances
TEAM-ECD	Total Environment Assessment Model of Early Child Development
WHO	World Health Organization

1 INTRODUCTION

The Commission on Social Determinants of Health of the World Health Organization (WHO), pronounced in its reports in 2007 and 2008, that social inequities in health affect children already from before birth. Therefore, early childhood should be considered a period of highest priority for policymakers in efforts to create conditions for good health for all people (1, 2). The Commission stated that health inequities stem from the influence of social conditions over peoples' lives, and the unequal access to resources and power among different groups in society. It called for material, political and psychosocial empowerment of people, communities and countries, ranging from improving people's daily living conditions to promoting favourable macro-policies (1). In order to combat health inequities, effective policies and programmes should be put in place from early childhood (1, 2).

Placing early childhood as a central target area for actions on health inequities, is a result of decades of intense research into early childhood development (ECD), demonstrating the importance of the first years of life to the health and development over the whole life course of individuals (3, 4). Research on health inequities has also established clear links between the socioeconomic circumstances of children and their health. Still, pathways from one to the other are complex, including social determinants on different levels (5, 6), and involving both the child and its parents (5). More detailed understandings of why children living under worse socioeconomic conditions also present worse health, is warranted in order to develop effective actions on health inequities (5-7).

The literature on interventions to improve children's health and development in early childhood is vast. However, there are relatively few studies on interventions with the focus of health inequities and early childhood (8, 9). At the same time, calls are made for the need of better understanding of how such interventions function, in which circumstances and for whom they work (5). Qualitative research has the capacity to investigate complex phenomena and underlying meanings (10), and it is therefore a useful tool when attempting to answer questions of *how* and *why*. The qualitative research project of this thesis has aimed to produce deeper knowledge of the workings of one specific intervention, targeting health inequities in early childhood, developed in a socioeconomically disadvantaged setting in Stockholm, Sweden.

This intervention, an extended home visiting programme, was initiated in 2013, in Rinkeby, a community in the district of Rinkeby-Kista, in the northwest of Stockholm. This multicultural community, with over 90% of the population of foreign background (11), was one of the most socioeconomically disadvantaged areas of Stockholm county (12). The socioeconomic disadvantages were also clearly perceptible in terms of health inequities. Children who attended the child health care (CHC) centre in Rinkeby, had consistently more unfavourable health indicators than the average for children in the county, for example vaccination rates, exposure to tobacco smoke, dental caries, and overweight and obesity (13). Reports further indicated that the health gap in Stockholm was increasing (12-14). The CHC nurses in

Rinkeby experienced frustration due to the lack of time and resources to attend to the large needs of the families they met. The preventive social services offered parenting support but perceived that they had difficulties in reaching families with small children (15).

The extended home visiting programme was conceived as an additional source of support, offered to all first-time parents who enrolled in Rinkeby's CHC services when their child was born. Pairs of CHC nurses and parental advisors (trained social workers) from preventive social services, jointly realized the intervention of six home visits. The programme was understood to be a strategy for promoting health equity (15, 16). To collaborate through preventive early childhood home visiting, was a new endeavour for the CHC and preventive social services in the Swedish context. The professionals gradually developed the contents and work method while the programme was being offered to the first group of families 2013-2016 (15).

Uncovering the reasoning behind the way an intervention is structured, and how it is supposed to reach its aims, is an important task in the work to improve actions against health inequities (17). A documented and coherent programme theory of an intervention increases the possibilities of achieving positive results (18). The research project of this thesis has investigated how the Rinkeby extended home visiting programme has been structured and implemented in practice. It has attempted to discern what programme components can be considered most important, and how they are expected to produce favourable conditions for children's health and improving health equity. It has also sought to gain a deeper understanding of how pathways from families' life situations and living environment, may lead to health inequities. With perspectives from the early childhood home visiting research field, as well as theories of the social determinants of health and health inequities, the thesis explores the role played by the extended home visiting programme in promoting a better start for the children in Rinkeby.

2 BACKGROUND

At this point in time, it is well-established that aspects of the social context exert a major influence on the health of individuals. It is also well-known that these factors have different degrees of influence on the health and lives of different groups in society, creating what is known as social health inequities, or more often referred to as simply health inequities. Inequities in health can be distinguished by three combined features, namely: they are distributed in a systematic way in the population; they are produced by social factors; and they are unjust (1, 19). Health inequities are related to socioeconomic status in a social gradient of health, which means that they do not only affect the lowest socioeconomic groups, but they are present throughout all population groups, so that health status gradually worsens when going down the socioeconomic scale (1, 20, 21).

This background chapter will start with an overview of the research field of health inequities in early childhood, including the presentation of theoretical frameworks of social determinants of early childhood development (ECD), and mechanisms of health inequities. It is followed by sections outlining policy recommendations to reduce health inequities, and to promote healthy ECD. A further section explores home visiting in early childhood. The final sections provide the Swedish context of health inequities, welfare services in early childhood, and the development of extended home visiting.

2.1 HEALTH INEQUITIES IN EARLY CHILDHOOD

2.1.1 Development in a life-course perspective

Early childhood covers the period from pregnancy to the age of 3 years (22). It has consistently been pointed out as a crucial time, both in the establishment of health inequities and as a target for interventions to reduce them (1-4, 21, 23). One of the reasons is the consolidation of understanding of the importance of early childhood for healthy development in a life-course perspective. Research has shown that human development is an interplay between biological and socio-environmental factors, where experiences of the surrounding environment influence the physical and cognitive development of a child already from the prenatal period (3, 24-26). Experiences prenatally, drive adaptive behaviours and biological functions that are important for postnatal survival (24), and will influence the health over the life period (25). The external influence on physical and brain development seems especially important during sensitive periods, when specific systems of the brain are most prone to receiving input and adjustments (3, 4, 25). Such periods start before birth and peak during the first three years of a child's life (25, 27, 28). The concept of biological embedding explains how deprivation of stimulus or exposure to adversities may cause chronic, or toxic, stress in children which can lead to biologically embedded disruptions in the development of the brain and other organs, as well as alter functions of the stress- and metabolic systems. This, in turn, may result in poor mental and physical health in adult life (4, 27-29). However, research also indicates that there is genetic variation in how susceptible or resilient individuals may be to adversities (27, 30-32), and further, that there seem to be a brain plasticity related to the opening and closing of sensitive windows of development, showing that the relationship between the socio-environmental and biological factors is even more complex than previously known (27, 31, 32).

2.1.2 Adverse Childhood Experiences

The research field of Adverse Childhood Experiences (ACEs) has further contributed to the understanding of the importance of early childhood in a life-course perspective. Felitti and colleagues carried out a study on the effect of seven different ACEs, for example, abuse, and household dysfunction (33). They found a strong and cumulative relation, so that persons with multiple ACE exposures also showed higher presence of disease, such as cardiovascular conditions, lung and liver diseases, and cancer in adult life. The study also pointed to a causal chain involving risk behaviours and life-style factors. It may be understood in terms of a pathway where adversity can accumulate and one exposure increases the probability of further exposure to other adversities later in life, which all then negatively affect health (25). A large number of subsequent ACE studies have confirmed that adversities in childhood is a common experience, that the ACEs are interrelated, and lead to increased risk for both poor physical and psychosocial health over the life-course (29, 30, 34, 35). However, some critique has been made that the ACE index is too narrow and overlooks many adversities that stem from social inequalities, which therefore would underestimate the actual amount of adversities experienced by different population groups (32). This is also in line with a recent review that argues for the need to acknowledge additional ACEs related to community environment, racism, as well as intergenerational transmission of ACEs from parents to child (35).

2.1.3 Social determinants of health

Advances in the field of early childhood development (ECD) were incorporated by the WHO's Commission on the Social Determinants of Health, in a special report that presented a Total Environment Assessment Model of Early Child Development (TEAM-ECD) (2). The model, illustrated in Figure 1, depicts how overlapping and interdependent spheres of geographical and social environments influence ECD by acting as health promoting, protective, or risk determinants.

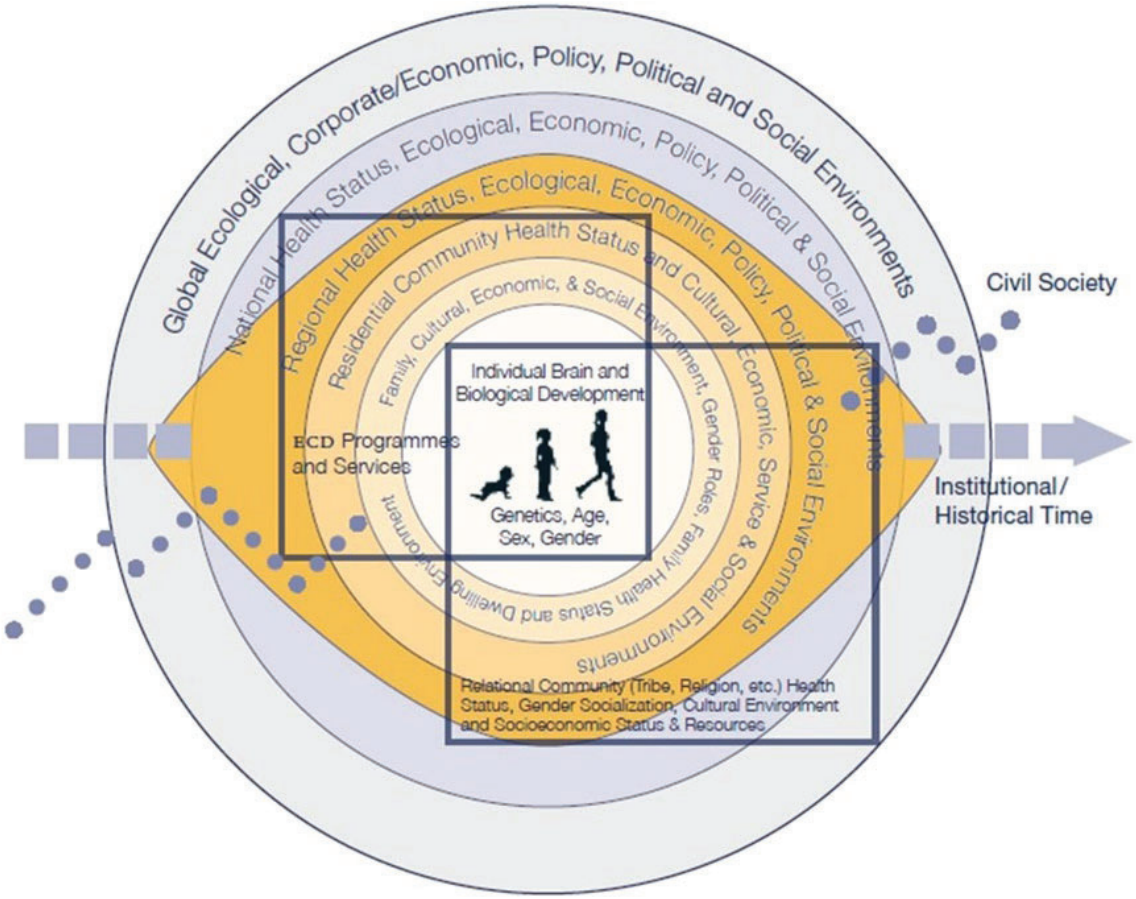

Figure 1. Total Environment Assessment Model of Early Child Development, developed by Irwin et al (2)

The centre of the model holds the child and represents how the process of brain and biological development is determined by the surrounding environments, which, in turn, will shape health, learning and other opportunities along the life course (as described in section 2.1.1). Closest to the child is the *family environment* which provides economic resources and living conditions, as well as social resources. The family environment is also a mediator of the child's interaction with outer environments. The next geographical sphere of influence is the *family's residential community* that contains local government, access to services and goods. The *family's relational community* is presented as a separate sphere of influence. It contains the social connections to others that shape the social identity of the child, through religion, ethnicity or language, for example. It also provides support networks to the family. *Access to ECD programmes and services* compose another sphere, overlapping the others. The *regional and national spheres of influence* determine access and quality of policies, services and resources, that reach the community and family environments. Finally, the *global sphere* may affect ECD through interventions by international actors. The aspect of time in the framework provides a life-course perspective, and also represents how macro-level changes occur over long periods.

2.1.4 Mechanisms of health inequities

While the TEAM-ECD maps the social determinants that condition healthy development of the child (2), it is also important to explore further how health inequities may arise, be

maintained or altered. The following conceptual framework (Figure 2) by Pearce et al. (5), adapted from Diderichsen et al. (36), explains the mechanisms of health inequities from early childhood. It additionally shows possible points of entry for policies to reduce health inequities. It is representative of the situations of high-income countries, which is also the main focus of this doctoral thesis.

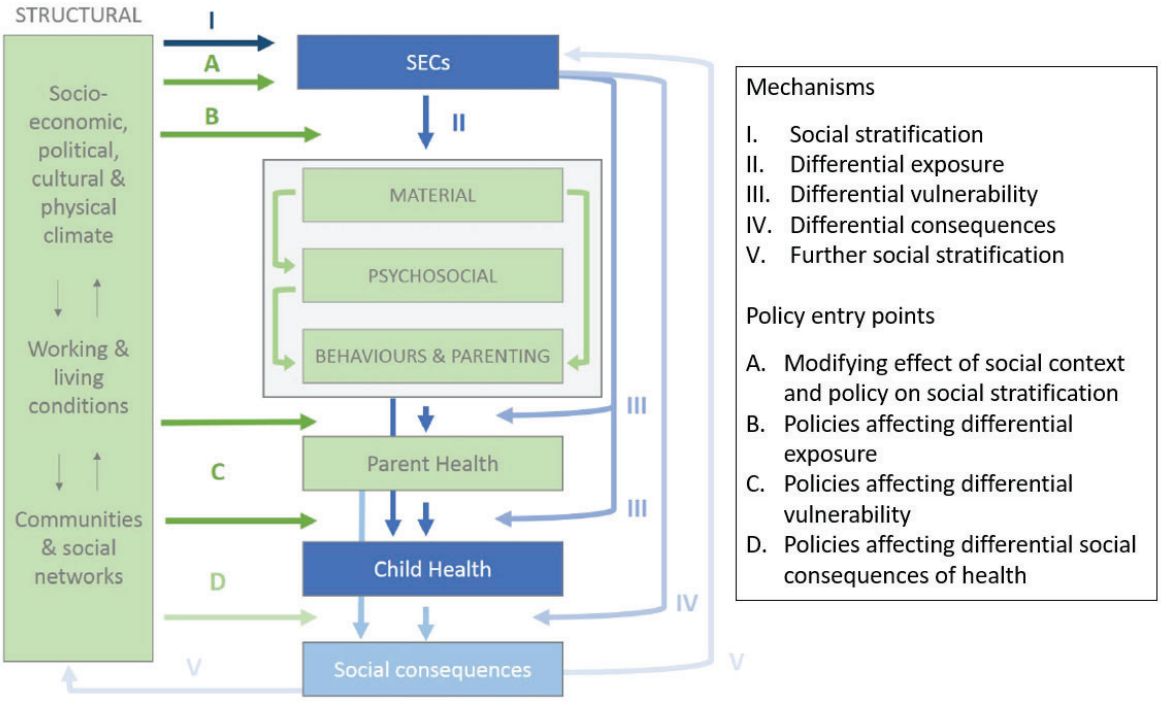

Figure 2. Conceptual framework demonstrating the mechanisms to child health inequities and policy entry points, by Pearce et al. (5), adapted from Diderichsen et al. (36)

Mechanism I in this framework, illustrates how the process of *social stratification* acts on the child via the parents. This means that the child will be born into certain socioeconomic circumstances (SECs), which will have a large influence on its living conditions, and this is considered the root cause to inequities in health. Mechanism II refers to the *differential exposure*, through which disadvantaged groups are subject to a larger burden of risk factors for ill health. These factors may be of material nature, such as poor housing conditions. They may also relate to the family's power and control over their lives, and parents' psychosocial response, such as chronic stress, and subsequent influence on health. Furthermore, parents' habits and health behaviours will exert influence on the child, for example through diet, amount of physical activity and exposure to tobacco smoke. The *differential vulnerability* in mechanism III, shows how negative impact on health in disadvantaged groups are greater due to increased likelihood of exposure to multiple interacting risk factors. This mechanism will act on parents' health and well-being which in turn influence the child's health. Mechanism IV indicates how socioeconomic circumstances will lead to *differential consequences* of childhood illness, for example, in terms of access to and quality of healthcare. Ill-health during childhood may cause more negative consequences for children from disadvantaged groups, for example negative effect on academic achievement, which in turn will influence future possibilities of education, employment, income and so on. This is shown in mechanism

V, through *further social stratification*, resulting in health inequities that are perpetuated over the life course.

The framework also demonstrates how health inequities may be reduced through policies that should enter at different points (A-D) and intervene on the mechanisms. Policies at point A relate to structural systems such as welfare, education and labour, with potential to influence the social stratification process. Entry point B refers to policies such as health services, housing improvements, and public health measures to decrease differential exposures to risk factors. At point C, policies to address the differential vulnerability due to accumulation of risk factors, may include programmes focusing on ECD, such as home visiting. Finally, social security or work policies are examples of policies at entry point D, that might protect families from negative consequences of ill-health of parents or child.

The following section presents the overarching policy recommendations to combat health inequities, referred to as Proportionate Universalism.

2.2 PROPORTIONATE UNIVERSALISM TO LEVEL THE GRADIENT

The proposal of Proportionate Universalism was built on the concepts of *universalism*, and *targeting within universalism*, that may be traced back to the field of social policy. These concepts will be introduced at the beginning of this section.

2.2.1 Concepts of universalism and targeting within universalism

Within social policy, the concept of *universalism* has been used to describe social policies that encompass the entire population of a country, and they are found, for example, in the Nordic welfare states (37). It has been proposed that for a policy or programme to be considered truly universal, it needs to be exclusively public funded; managed by a single actor to ensure uniform benefits; be offered to the whole population on similar conditions; and provide high quality, generous social benefits that guarantee their relevance for all citizens (37). Universalism has thus been acknowledged as preconditional for promoting equality (37-39). One of the observed threats to universalism, however, is that it is not used by all groups in society. An example would be high income groups preferring to pay for private medical services, something which could weaken the universal welfare system (37). It has therefore been suggested that the use of universal programmes by the great majority, when in need, should also be a condition for universalism (39). Regarding the lower end of the socioeconomic spectrum, it has also been argued that universalist policies may not fulfil their objectives in practice, as these policies do not consider already existing inequalities, or effectively promote redistribution within the population (38).

The concept of *targeting within universalism*, was born as a proposal to improve the equity outcomes of social policies. The proposed aims were to provide additional services and benefits to less advantaged people within a universalist framework, which would represent a disproportionate support but without the aspect of stigmatization (40). It may be understood as an attempt to join the idea of a solid and politically legitimate universal welfare state, with the efficiency of redistribution of targeted interventions (41). Within the area of public health, the concept was incorporated to develop the understanding of policies to combat health inequities. These were described by Graham (42), as three approaches on a continuum: (a) to

focus on improving the health of the socioeconomically most disadvantaged group; (b) to attempt to narrow the health gap between the most disadvantaged group and the more affluent ones; or (c) to reduce the social gradient in health inequities across the whole population. The author argued for policies focusing on the gradient, because they shed light on the systematic differences in living situations and opportunities related to the socioeconomic stratification. Focusing on the gradient also makes policies inclusive of the whole population, which is argued to be an important moral case. Furthermore, to reduce the health gradient makes a policy goal that is comprehensive, including all three complementary approaches. According to Graham, to reduce health inequities, there needs to be focus on the most disadvantaged, on the gap and on the gradient. So, while ensuring policy attention on the health of all social groups, there is also the need to promote health improvements that are faster in the disadvantaged groups compared to the more affluent groups. While being presented as the preferred policy option, it is also recognized as challenging (42, 43), complex, resource demanding, and only producing positive results in the long term (43).

2.2.2 Proportionate Universalism

The WHO's Commission on Social Determinants of Health (1), as well as subsequent reviews on Europe (21) and England (20), all led by Sir Michael Marmot, have been largely influential in developing proposals of policies to decrease the inequities in health within and between countries. A key message of the reports was that policy actions were needed across all levels of social determinants of health (20), through strategies that would improve people's daily living conditions; but actions should also be taken on how power, resources and money are distributed in society (1). The English report lay out six domains of priority for action: early childhood; promote control and the possibility to maximize the potential for the whole population; improved and fair employment conditions; healthy living standards; sustainable and healthy communities; and improving prevention of ill-health (20). A central recommendation was to focus on the social gradient in health, applying the concept of targeting within universalism, presented as Proportionate Universalism: "actions must be universal, but with a scale and intensity that is proportionate to the level of disadvantage" (21, p.15).

2.2.3 Criticism of the Marmot proposals

The policy proposals by the commissions and reviews led by Marmot, have been widely recognized for placing the social determinants of health inequities on the international political agenda (5, 44). However, some critical voices have also been raised. From the field of economics, authors have challenged the causal chain from low income to ill-health that was shown in the Marmot reports (45). These authors have argued the contrary, that it is in fact health that has an effect on income rather than the opposite, and that significant improvements in public health have been observed also in societies with highly inequitable resource distribution (45). Thus, it has been argued, the focus should be on cost-effective application of health resources, which would end up rendering higher benefits to those with poorer health, rather than primarily targeting the inequitable distribution of resources as proposed by Marmot (45). Others have pointed in a different direction; that the reports are not strong enough in proposals to act on the macro-level forces that drive inequities (44), and that they do not take a clear stance on the need for major redistributions of income and wealth,

which would also include the highest socioeconomic groups (46). Concern has also been raised for the lack of political will and public support to embark on the far-reaching actions called for by Marmot (44, 47-49).

2.2.4 Implementing Proportionate Universalism

Although not a new idea in public policy, the Marmot proposal of Proportionate Universalism has received increased attention within public health since the reports were presented, and new research and interventions guided by the concept have followed (5, 38). With regards to implementation, the concept has received criticism for being too vague on how it should work in practice (8, 38, 44, 50, 51). Attempts to improve this has been made by other researchers, for example Benach et al. who have proposed two possible types of Proportionate Universalism interventions. The first would provide universal coverage or exposure, without any specific device for disadvantaged parts of the population, but where the benefits increase throughout the social gradient. The second would be interventions with universal coverage that have criteria and mechanisms to allocate more resources to specific groups according to increasing needs (43). Further, Carey et al. have developed a comprehensive framework for applying Proportionate Universalism, where universalist macro-policies should be guaranteed by the national government level, while targeted or tailored services would be provided to different groups throughout the gradient on regional level. Additionally, different types of services or suppliers would be determined on the local level, in accordance with preference or relevance for specific groups or individuals. This is supposed to increase the empowerment on community level inherent in Proportionate Universalism (38).

However, according to a recent scoping review, there are indications that the concept of Proportionate Universalism has not yet been widely applied in public health interventions, with the exception of some experiences from the United Kingdom and the Nordic countries (52). These authors also found that while aiming for reduced health equity, most interventions in the review did not have an expressed aim to decrease the gradient (52). It has further been noted that, despite the Marmot reports' urge for action on the structural root causes of health inequities, most interventions with the aim of health equity or Proportionate Universalism tend to focus on the social determinants related to individual lifestyle factors (8, 52-54).

Some different experiences of Proportionate Universalism in practice are found in the research literature. A Scottish study applied the concept in an urban renewal intervention, where three levels of investment were implemented according to areas' degree of disadvantage (income, health and social). After five years, the study found modest decreases in health inequities (55). Several studies have been published on the implementation of the Norwegian Public Health Act, which aims for action on the social determinants of health and levelling the health gradient, through a health in all policies approach (56-58). They found that limited understanding on municipal level, led to a primary policy focus on disadvantaged groups rather than addressing the levelling of the gradient (57). Further findings indicated some lack of coordination between areas on municipal level; that the main responsibility for the policy ended up being carried by the health sector; as well as challenges with funding from national level to municipalities, all of which potentially interfered with the attempts to level the gradient (56). Still, applying the Gradient Evaluation Framework, a specific tool to

assess policies' capacity to decrease the gradient (59), the researchers concluded that an increased number of Norwegian municipalities presented stronger awareness of the importance of the social determinants of health, which was taken to indicate that the aims of the Public Health Act were being implemented (58).

A study on how to best apply Proportionate Universalism in policies from a Swedish municipality, also identified institutional coordination as a central aspect of success, as well as the need to build health equity awareness, capacity, and commitment of stakeholders involved in policy planning and intervention (60). Studies from the United Kingdom (54) and the French (53) contexts have also identified a key challenge in policy makers' and practitioners' lack of deeper understanding of concepts, policies and interventions to combat health inequities by levelling the gradient (53, 54).

2.3 POLICIES FOR HEALTHY EARLY CHILDHOOD DEVELOPMENT

The following sections will explore the field of early childhood development (ECD) in further detail. It presents policy proposals and recommendations of actions, and then it continues by focusing specifically on interventions of home visiting.

2.3.1 The framework of Nurturing care

Research on ECD over the past decades has resulted in an expanded understanding of what the small child needs to experience healthy development. Consequently, more comprehensive recommendations and guidelines on how to promote ECD within a life-course perspective, have gradually been developed by research and the work of international organisations, as presented in the report on ECD to the WHO Commission on Social Determinants of Health (2), the Global Strategy for Women's, Children's, and Adolescents' Health (61), all within the framework of the Sustainable Development Goals (62). The concept of Nurturing care practices for ECD was widely promoted by the third Lancet ECD series in 2016 (3, 4, 23) and finally consolidated by WHO, Unicef and partners in the Nurturing care framework (22).

The concept of Nurturing care refers to the conditions that need to be established and safeguarded, through public services, programmes and policies, in order to support families' and caregivers' provision of care that enable children to develop to their full potential (3, 22). The framework is made up of the five components of Good health; Adequate nutrition; Responsive caregiving; Opportunities for early learning; and Security and safety. *Good health* focuses on catering for children's physical and emotional needs and making use of services for health promotion, prevention and treatment. Caregivers' mental and physical health is also considered important to ensure the child's good health. *Adequate nutrition* in early life depends largely on the mother's health and wellbeing, as well as the family's food security and safety. *Responsive caregiving* regards the capacity of the adults surrounding the child, to read and respond to its signals and needs through loving and caring interaction. Children also need *opportunities for early learning* by participating in social interaction where they are stimulated through language and play. *Security and safety* need to be promoted on all levels; by protecting children from war and poverty, but also from household hazards and situations of violence and maltreatment (22). The five components in the framework, are interrelated and influence one another during the child's development process, and they take place through interactions between child and caregivers (4). The most

important context for nurturing care is therefore the home environment, together with child-care services (3).

2.3.2 Nurturing care through services and interventions

Caregivers are understood to need knowledge and resources to develop their capacities to provide nurturing care. This should be offered through services, programmes and policies, that act as enabling environments, collaborating to provide a continuum of support to families according to their needs (22). A holistic approach is put forward in the Nurturing care framework, where multiple sectors should be involved in creating cross-sectoral interventions, using already existing service platforms. The health sector is, however, considered a key strategic actor, as it has the highest reach and interaction with families during the early childhood period (3, 22).

Recommendations are to integrate and coordinate interventions into packages. Britto et al. propose three possible packages that encompass diverse aspects and time periods of Nurturing care (3). The *Family support and strengthening package*, centres on the strengthening of parenting skills; promoting access to quality health services; as well as ensuring social support and protection through networks, policies and services. The *package of Multi-generational nurturing care*, emphasizes more specifically caring for and protecting the caregivers' mental and physical health, at the same time as strengthening their capacity to offer Nurturing care. Finally, the *Early learning and protection package*, combines parental support, with a focus on teachers' and other caregivers' capacity to provide positive and safe learning environments.

Increased attention to ECD has led to a subsequent growth in the adoption of policies and Nurturing care agendas, and an estimated 45% of low- and middle-income countries had multisectoral policies for early childhood by 2014 (4). This is also reflected in the increase of research on the implementation of ECD programmes and interventions, which has resulted in identification of challenges as well as lessons learned. One of the main challenges observed, is to move from smaller projects to large-scale programmes, without losing quality and diminish the capacity to produce favourable impacts (63-65). The inherent complexity of Nurturing care programmes also creates difficulties in structuring them to avoid fragmentation across sectors (63, 64). The required integration of ECD programmes at scale, into existing service systems, is a further challenge in many settings, depending on the functioning, quality and sustainability of institutional structures, as well as effective strategies of how to promote this integration in practice (63, 65, 66). Successful implementation demands engagement and partnerships among multiple stakeholders at many levels (63-67), in combination with investments in capacity building from national down to local levels (63-66, 68). Furthermore, research has found considerable limitations in available data on the costs of implementing ECD programmes (69), as well as government expenditures on ECD (70).

Scaling-up of ECD interventions also implies the implementation challenge of allowing for flexibility and adaptation to contexts, without compromising the core components that produce effects (66, 71). With the inherent complexity of ECD interventions, it has been considered just about impossible to produce a standard method for scaling-up, seeing the diversity of institutional, cultural and social contexts (64). Finally, the need for reliable data

and improved monitoring and evaluation of ECD interventions, have been called for. This includes policymakers' access to data on programme elements, population differences and existing infrastructure supports (72); improved tools for performing situational analyses that assess needs for implementation adaptations (67); evaluations of implementation processes (73, 74) and the application of standardized reporting guidelines (74).

2.4 HOME VISITING IN EARLY CHILDHOOD

One recommended intervention to promote Nurturing care in early childhood is home visiting. The following section will provide a detailed description of the field of home visiting programmes.

2.4.1 Diversity of programmes

Home visiting as a public health service to families with young children has existed in Europe and the United States since the 19th century, and the past decades have seen an increase in interest in high-income countries, with development of many new home visiting programmes (75, 76). In the United States alone, in 2018 approximately 150.000 families received one of the 19 programme models, considered evidence-based, that were eligible for federal funding through the Maternal, Infant and Early Childhood Home visiting (MIECHV) programme (77). The home visiting field, however, is marked by diversity, with large variations of programmes in terms of specific aims, structures, contents, target groups, professionals, as well as policy settings (75, 76, 78). There is, however, agreement in the literature, that the broader aims of home visiting are to improve children's health and development, through support to parents regarding interaction with the child, safety, and access to services in the community (75, 76, 79, 80). While many programmes have multiple objectives, such as to improve parent-child interactions, parenting skills, child health, immunization, school readiness, and family self-sufficiency; others have more limited goals, such as preventing child abuse and neglect (75, 76). Dose and duration also vary widely, from 1-3 visits during the first weeks postpartum (75), to programmes that start during pregnancy and continue for five years, and total amount of foreseen visits ranging up to 150 (79).

Home visiting in many European countries is offered universally to all families within the public healthcare structure (75, 76). In some countries however, such as the United Kingdom (81) and Sweden (82), home visiting within the universal structure can also be increased and targeted according to families' needs (81, 82). In the United States, the large majority of home visits take place within an exclusively targeted approach (75, 76), which means they only attend families who have screened positively for one or more risk factors. Some programmes screen for demographic risk factors, such as low income, low education level or being a teenage mother, while others use clinical screening criteria such as parenting difficulties, parent mental health problems or safe home problems; while some combine the two (83).

Distinction between programme approaches have also been made. One approach is prescriptive, with a set manual of content and procedures, that need to be delivered with a high level of fidelity by home visitors who have undergone specific programme training. Another approach seeks to tailor the home visits to respond to families' individual situations, needs and concerns, rather than following a strict manual. The latter approach relies largely

on the home visitor's capacity to respond to each situation, by identifying what would be the best strategy of intervention, which thus places higher demands on professionals' experience and skills (80).

2.4.2 Qualifications of professionals

Home visitors come from a wide range of backgrounds, and earlier research into which types of home visitors produce best results, have distinguished between programmes delivered by skilled professionals and those that use paraprofessionals (78, 84, 85). Studies from the Nurse Family Partnership, the largest programme in the United States, found better outcomes when skilled nurses carried out the home visits (84, 85). This was supported by a review, which found that programmes delivered by paraprofessionals produced no or only modest outcomes, stating that home visiting to families with many complex needs requires highly trained professionals (78). On the other hand, the fact that paraprofessional home visitors are often from the same cultural or geographical community as the families, has been pointed out as a positive factor (86). Another review stated that it only appears to be the aims and expected results of the programme, that can determine how crucial the qualifications of the home visitor become (80). However, this discussion seems to be less representative of the current home visiting scenario in high-income countries. While universal home visiting is usually delivered by public health nurses (75, 80, 87), several of the U.S. programmes also require that the home visitors are nurses, and those that do not, demand a minimum level of education and/or relevant work experience (79). The United States MIECHV programme evaluation of 88 local programmes, found that 75% of the home visitors had a bachelor's degree or higher, primarily from the fields of nursing, social work and welfare, psychology, child development, and early childhood education (79). This indicates that in high-income countries today, home visitors are generally professionals with some degree of higher training.

2.4.3 Varied programme effects

Despite their popularity, researchers still debate to what degree home visiting programmes, on their own, can produce lasting positive effects on parenting skills, and child health and development. Some well recognized studies have shown positive results and also some long-term impact on a number of outcomes. The Lancet ECD review highlighted examples of home visiting interventions from Pakistan and Jamaica, with developmental outcomes in the child as well as decreased maternal depression and improved parenting skills (23). Another review of randomized trials concluded that some of the programmes have positive and replicable results on child health that can be implemented in a variety of populations and settings (88). A third review found evidence to support the implementation of home visiting, especially for families at higher social risk (89). A recent review reported that programmes targeting disadvantaged families have potentials to produce positive language development in children (90). Longer- term follow-ups in randomized controlled trials have showed reduced rates of investigations of suspected child maltreatment and decreases in emergency care use at five years (91); positive evidence related to substance use, behavior and academic results at 12 years (92); and lower levels of psychiatric problems in adolescents at 15-years (93). The MIECHV program evaluation of 88 local programmes, concluded that improved outcomes could be observed in a range of outcomes areas at 15

months. It further stated that evidence-based home visiting seems to have a long-term cost-effectiveness (94).

However, several other reviews and studies have concluded that consistent results from home visiting programmes are few or moderate at best (78, 80, 95-97). One analysis put forward is that the positive effects detected in previous decades used comparisons with usual services that were far less comprehensive than they are currently, leading to seemingly smaller effects in more recent trials (97). Explanations for poor results have also been sought in the fact that home visiting interventions may be less successful as they tend to target symptoms instead of underlying causes (80). Alternatively, it has been argued that home visiting, by its nature, is a varied (rather than standard) treatment, applied to a heterogeneous population with a diversity of needs and challenges, and therefore only modest results are to be expected (98). Furthermore, it has been noted that evaluation studies have used indicators that may not have been specifically targeted in the actual implementation of the programme (99). Others have put forward that effects of home visiting may only be evident when the child has become an adolescent or adult, which creates a large challenge for evaluations to produce evidence (100). It has been further suggested that only part of the home visiting programmes are suitable for randomized controlled trials, and results of the other interventions may therefore have been disregarded in reviews (80).

2.4.4 Components of effective home visiting

In light of the diversity of home visiting programmes and the somewhat contradictory findings regarding effects, it is a challenge to establish what are the important components that produce effects in successful programmes. Efforts to discern core components have been made through reviews and several meta-analyses, but any clear overall conclusions are difficult to draw, partly due to these studies differing in design (aim, target, and components of analysis), but also presenting considerable variations in terms of results. One meta-analysis suggested that higher frequency of home visits was related to more improvements in maternal behaviour, but that the level of qualification of the professionals did not make any difference (101). In contrast, another one indicated that staff training and supervision were associated with programme effectiveness (102). A third meta-analysis found no consistent patterns of components associated with effective home visiting (103).

A literature review also pointed to the lack of clear findings but presented some components around which there seems to be a general support in research: antenatal recruitment of families; longer programme duration and higher number of visits; targeting at-risk families; and qualified professionals (80). In a complementing review on delivery process and work methods, a number of key elements were proposed, among others: family-centred, relationship-based practice; focus on strengthening parents; professionals' cultural awareness; continuity of care; and effective service coordination around the family (104). Similarly, a literature review from health visiting in the United Kingdom, stressed the importance of a salutogenic, family-centred approach and the establishment of a trusting relationship between professionals and parents (51).

The most recent systematic review investigated home visiting programmes of a minimum of 12 months, with nurses or midwives as home visitors. A number of common components were identified: initiation before birth; minimum duration of 2 years with 25 visits; highly

qualified or experienced nurses with specific programme training; regular professional supervision; 25 families-caseload; continuity of care; and access to additional multidisciplinary support, which included social workers (105).

2.4.5 Proposed improvements

In addition to the challenges of producing and detecting effects of home visiting, engaging and retaining families in home visiting programmes has also proven difficult (106). For example, the MIECHV program evaluation, found that only approximately 50% of participating families remained enrolled at 12 months, despite at least 2 years' expected programme duration (94). At the same time, it has been recognized that in the largely prescriptive programmes in the United States, there are challenges of creating a good fit between the manualized content and families' individual and complex needs (106). In addition, despite the approval of 19 different programme models for federal funding, only four of those programmes are implemented in the great majority of states and territories. This lack of diversity may in practice lead to the exclusion of vulnerable families that do not fit into the specific screening criteria of the implemented programmes (100).

In answer to the above-mentioned challenges, the field of targeted home visiting is looking for ways to find better fit between content and families' needs, as well as improve the effects of programmes (106, 107). One development on the upswing seems to be Precision home-visiting. Research on Precision home visiting attempts to identify and test what elements of programmes function well for specific families and in specific contexts (94, 107, 108). With this knowledge it would be possible to tailor programme content to particular risk profiles and needs of families (106, 107, 109). Although it is recognized that the practice of content tailoring to family needs already exists, the judgement on what content to deliver during the home visit is currently made by the individual home visiting professional rather than by evidence-based screening (106, 110). To develop and improve Precision home-visiting, new methods of rapid-cycle evaluations have been proposed (107, 108, 110).

2.4.6 Critique of home visiting

While early childhood home visiting has large support in research and among policymakers, some critical voices towards home visiting programmes in the field of ECD should also be acknowledged. Firstly, it has been argued that this type of intervention is underpinned by a discourse that attempts to shift the responsibility for change from governments to families living in disadvantaged communities. It is thus believed to obscure the principal need which should be to focus on addressing inequality and poverty at the structural level (111). In addition, home visiting has been portrayed as a tool of disempowerment, through which appointed health experts assume the rights of teaching poor and presumably ignorant parents how they should bring up their children (47). Finally, the view has been put forward that the dominance of the neuroscientific-economic approach in the field of early childhood is effectively excluding alternative paradigmatic positions, and that its proposed fast scientific-technical solutions is substituting the necessary democratic and political efforts that need to be applied in the field of early childhood (112).

2.5 THE SWEDISH CONTEXT OF HEALTH EQUITY AND EARLY CHILDHOOD

The final sections of this chapter will explore the situation in Sweden with regards to health inequities among different groups in the population. It further presents the relevant policies and services of parenting support, child health care and preventive social services. Finally, an account of the development of the Rinkeby extended home visiting programme is given.

2.5.1 The Swedish Commission on Equity in Health

Following the WHO's Commission on Social Determinants of Health (1) and the Marmot reports (20, 21), in 2015, guided by its goals to close the preventable health gaps within a generation, the Swedish government appointed a Commission on equity in health (113, 114). In line with the previous reports, the Swedish Commission also declared health inequities to be a consequence of the interplay between individual and society, where individuals' health depends on their own capacity to generate central resources, as well as their access to society's collective resources. Availability and quality of collective resources were also believed to be of greater importance to those individuals with less own resources and limited control over life decisions (113). The Commission stated that, despite high living standards and well-established welfare policies, health inequities in Sweden were significant, and although small in a global perspective, the health divide was increasing (113, 114). Systematic differences in life expectancy and mortality were observed according to level of education, but also in different geographical regions and in rural versus urban areas, as well as within the different areas of larger cities. The socioeconomic gradient in health was clearly discernible, as was additional health differences between the general population and some especially vulnerable groups, such as persons with special needs, hbtq persons, some national minorities and people with foreign background (113).

Seven central areas for action were identified by the Commission, among them Early life (113). It was also established that the institutions of the welfare state would be the principal tool to combat health inequities caused by the social determinants, requiring long-term action and focusing on many issues within a wide spectrum of sectors (114). Specific conditions identified as necessary in early childhood included, equitable maternal and child healthcare, equitable high-quality early childhood education, and methods and resources that place the child's best interest in the centre (114).

2.5.2 Current socioeconomic and health indicators

The most recent reports regarding the income and health situations of Swedish families and children, indicate some improvements but also increasing disparities and inequities. Data from 2018, indicate a general increase in economic standard in the population, however, since 2011, there is also an increase of the share of the population living with low economic standard (when the economic standard of the household is less than 60% of the national median) among adults and small children (0-9 years). Differences are observed regarding education and country of birth. Among women with only pre-secondary education and adults born outside Europe, over 30% were living with low economic standard, while the rate was 13% in the adult general population (115).

Similarly, data on the situation of children, show decrease in child poverty rates from 10.8 % in 2011 to 9.2% 2019, but economic vulnerability is four times higher for children living with single mothers compared to couples. Slightly more than 20% of children with foreign background live in economic poverty, compared to 2.8% of children with two Swedish parents. So, while child poverty decreased between 2016 and 2019 for children of co-habiting parents in all household categories, it increased from 42.1 % to 49.5% for children with single, foreign-born parents (116). It is also estimated that at least 15.000 children were living in homelessness in 2017 (117). A study of the cohort of children born 2000, further showed that these patterns can be identified also over time, where a child of co-habiting parents run a 19% risk of poverty during some period of childhood while the risk is 87% for children living with a single parent and 80% for children with foreign-born parents (118). The socioeconomic geographical segregation is also still visible, especially in the large cities and suburbs. Low economic and material standards as well as crowded living conditions are more common in socioeconomically disadvantaged areas. In such areas, in 2018, over 50% of 0–19-year-olds were living with low economic standards, and 30% of people born outside Europe were living in crowded living conditions (119).

In terms of health consequences, in 2021, the Swedish Public Health Agency stated that health inequities have not decreased on the whole since 2006, and in some cases the health gap has widened. Life expectancy (at 30 years), for example, has increased on average 2 years in the population, but among women with only pre-secondary education it has only increased by 0.3 years, while this group has also seen an increase in risk of premature death during the same period. Additionally, the effects of the Covid-19 pandemic are foreseen as possibly causing a further increase in health disparities (115).

With regards to children, there is a recognized lack of statistics, in particular concerning child health (119). For instance, there is no working national health register for children 0-6 years, that compiles comparable data from the different regions (120). Still, some data is available, for example, showing that from 2006-2019, infant mortality during the first 12 months decreased with approximately 20%, from already low levels. However, the infant mortality rate is higher among children with parents who only have pre-secondary education, and also with a mother born outside Europe (115). A 2017 study from the Stockholm region on children 0-5 years, covering approximately 25% of all children of that age living in Sweden, investigated the relation between child health and socioeconomics, using the index of purchasing power, divided on CHC centre-level. The findings pointed to large differences in health indicators between geographical areas with high and low purchasing power. Presence of tooth-caries at 3 years, exposure to tobacco smoke in the home, and obesity at 4 years were systematically higher in areas with low purchasing power, while the relation was reversed with regards to exclusive breastfeeding at 4 months (121).

2.5.3 Parenting support policies

A strategy that is well established in the Swedish welfare system is the provision of parenting support through a variety of services and providers. Among them are the antenatal clinics and CHC centres, introduced in the 1930s, followed by family counselling and parenting education services in the 1950s and 1970s respectively (122). Traditionally, parental support was not viewed as a specific policy area, but rather integrated in policies of economic and

social welfare of families, and delivered as universal services (123). Since the 1990s, the political interest for parenting support has grown, resulting in a specific policy area which was formally established through a National Strategy for Developed Parenting Support in 2009 (124), the institution of a Family law and Parental support Authority in 2015, and a revised National Strategy in 2018 (125).

Parenting support encompasses efforts to strengthen parenting efficacy and the relations between parent and child. This includes providing parents with knowledge on child health and development, children's rights, strengthen social networks and also the relations between parents (125). The overarching policy aim is to offer parenting support to all parents during the whole period of childhood from 0-17 years (124). Parenting support is provided through a variety of services and actors, including maternal and child health care (CHC), the preventive social services, open daycare, family counselling, and civil society organisations. It can be delivered through individual meetings, parenting groups, within universal open activities for parents, structured programmes, and information and forums on the internet (125).

The 2018 National strategy put forward current needs and areas that should be strengthened in order to fulfil the goal of accessibility to all parents. One significant addition, in line with the principles of Proportionate Universalism, was the introduction of targeted parenting support to parents and children in risk groups, as well as to families with already established problems, something which was not present in the earlier National strategy. The main focus, however, should remain on universal support. Other perspectives that should be strengthened according to the new strategy were, the child rights perspective, equality in parenthood, as well as health equity. Continued efforts to improve accessibility were deemed important, through offering new forms and arenas for parenting support, as well as increasing knowledge on how to best reach parents with different backgrounds, needs and wishes. The new strategy further stressed the importance of increased cross-sectoral collaboration and improved collaboration between actors, for example maternal- and child-health care, social services and open daycare (125).

2.5.4 Child Health Care services

In Sweden, the principal contact of children of 0-5 years with the health care system is through the CHC centres. They were instituted as a result of the 1937 government decision on voluntary, general and free of charge maternal and child health care. From an initial focus on health monitoring, the CHC has gradually assumed a health promotive and preventive role, which also includes the detection of needs of children with heightened risk of health problems. The CHC is highly trusted among the population and it reaches virtually all children, thus being a cornerstone in the public health work (126).

There are currently around 950 CHC centres in Sweden (127). The national CHC programme is based on the principles of Proportionate Universalism and is divided into three levels. The first level of the programme is offered to all and aims at promoting healthy development and prevent disease, injuries, physical, psychological and social problems. The second level focuses on early prevention of potential negative developments of the child's physical, psychological and social health. The third level contains targeted efforts, which also include other services such as specialist health care or social services. The second and third levels

thus imply more intensive support that can be provided to families in situations of higher needs. The programme is based on the assumption that all children might need extra support at some point, and for shorter or longer periods during their first years, and the three levels are structured to provide a capacity and flexibility to respond to each child's unique situation (82).

The programme contains 17 appointments during the period of 0-5 years, which may be increased according to need. The main part of the meetings is with the CHC nurse, and three appointments also include a paediatrician. Home visiting to families in the early period of the child's life has been implemented since the establishment of the CHC centres. Presently, the universal national CHC programme recommends one home visit when the child is newborn (126). A national decision was also taken in 2014 by representatives of the CHC profession, to offer an additional universal home visit at eight months. This has been implemented in some regions. Additional home visits are also possible to offer within the framework of the three levels of the CHC programme (82). As a complement to individual meetings and home visits, the CHC also offers parenting groups (126).

The CHC has received increased attention by the government in the past few years and several important resource allocations and initiatives are underway. These initiatives take place within a larger strategic redirection of the whole healthcare towards what is named, Good health care close at hand (God och nära vård). The redirection aims to move from a fragmented health care to provision of coordinated, seamless care, changing from reactive to health promotive and preventive. The starting point should be the individual needs of the patient, considering the whole life situation, and making the patient an active participant (128).

In 2017, the government and the Swedish Association of Local Authorities and Regions, signed a set of agreements for 2018-2020, to increase accessibility in the CHC, especially focusing on children with higher health risks due to socioeconomic vulnerability. This resulted in a wide range of initiatives such as, increasing the numbers of professionals and capacity building among CHC staff in disadvantaged areas; developing collaborations with social services, dental care and pre-school, among others; as well as implementing extended home visiting programmes (129).

In 2019, the government also instituted an inquiry into the health care needs for children and youth, called, A cohesive, good health care close at hand for children and youth (Sammanhållen god och nära vård för barn och unga). This inquiry has proposed a health reform which should decrease fragmentation and gaps in healthcare, promote a more equitable care, as well as breaking the trend of increasing mental health problems among children and youth (130, 131). Main recommended measures include, passing a law on health promotion for children and youth, and instituting a national health care programme aimed at 0-20 years. The health care should strengthen its collaboration with other actors, including social services and dental care. Systematic considerations should also be given to children's rights and interests in the planning and organisations of health care (130).

Furthermore, the National Board of Health and Welfare has received the assignment to investigate, propose and develop a CHC pilot intervention, to strengthen the conditions for

health equity among children living in socioeconomic disadvantaged situations, improve parents trust in welfare services, as well as strengthening their own perceived parenting capacity (132). This initiative is currently being developed and implemented and will be further detailed in the coming section 2.6.2 on home visiting.

2.5.5 Preventive social services

The utmost responsibility for social support and help to citizens in Sweden, lies with the municipalities, in accordance with the Social Services Act (Socialtjänstlagen) (133). The social services should promote economic and social security, equality of living conditions and active participation in society. The work should focus on developing and strengthening individuals' and groups' own resources (125). The social services have a double duty, both to realise preventive and outreach work, as well as to exercise public authority. The preventive role aims to prevent social problems and exclusion and it is carried out on societal-, group- and individual-levels. Similarly to the CHC, the preventive work within social services is divided into universal, selective and indicated prevention (134). In childhood, the preventive social services may offer structured parenting programmes, lectures, individual parental counselling and resources on-line (135). Sometimes the preventive work and the exercise of public authority are carried out by the same social workers, while in other cases it is divided into separate branches. The preventive social services may operate within its own premises, but preventive social workers can also be placed at the CHC centre or open daycare. Another form is the family centres where CHC, preventive social services, open daycare and sometimes prenatal and other services are located in the same premises (136).

In 2017, the government initiated an inquiry into the Social Services Act and part of the social services' responsibilities, with the aim of, among other things, propose an organisation and services that promote sustainability and long-term preventive focus that will decrease the needs of interventions with individual cases (134, 137). The inquiry declared that, although the social services were already developing preventive work to some degree, these efforts differed greatly between municipalities, and the long-term and structural preventive work had been set aside in favour of the exercise of public authority for individual cases (134, 137). At the same time, it recognized a large number of individuals living in social exclusion, suffering and ill-health, which in turn led to high societal costs. The strong recommendations were thus to strengthen the preventive perspective within the social services on all levels and in all areas (137). The inquiry further recognized the role of preventive social services in promoting health equity. It stressed the relation between social determinants and good or ill-health. It further identified that the goals of the Social Services Act, namely, social and economic security and equitable living conditions, become the means of public health work to achieve good and equitable health in the population. The inquiry also stressed the importance of cross-sectoral work, giving the example of collaboration between social services and CHC (134).

2.6 HOME VISITING IN COLLABORATION

2.6.1 The Rinkeby extended home visiting programme

When the Rinkeby extended home visiting programme was proposed as a project, it was to the best of knowledge, the first extended home visiting intervention, embedded within universal child welfare services, to be carried out in full collaboration between the CHC centre and preventive social services (16). This full collaboration implied equal involvement of both organisations in programme development and continuous practical teamwork between pairs of CHC nurse and parental advisor (preventive social worker), where both professionals participated in all home visits to the families. The programme was initiated in 2013, in the area of Rinkeby, with the ambition to offer additional home visits to all first-time families registered at the local CHC centre. It aimed to promote children's health and well-being and prevent ill health through the strengthening of parents' skills (15, 16).

The Swedish Public Health Agency funded costs for the CHC nurses, and the initiative also included funds for programme development, coordination, monitoring and evaluation. The social services covered all costs for their participation in the initiative. A working group consisting of a coordinator and the CHC nurses and parental advisors doing the home visits, assumed the responsibility of developing and structuring the programme while it was being rolled out to the first group of families 2013-2016 (138). The programme started with the initial home visit when the baby was newborn. This visit already existed in the universal National CHC programme, but in the Rinkeby programme, it also included the participation of the parental advisor. An additional five visits were then spread out over 18 months, in order to take place in concurrence with relevant marks of early childhood development (ECD). Furthermore, it was structured to fit into the universal schedule of appointments to the CHC centre, that were also being attended by the participating families. The visits were estimated to 60 minutes, in comparison to the usual 30-minute-appointments at the CHC centre. Interpreter services were offered to those parents that needed and so wished. The professionals opted for not adopting any existing home visiting programme model. Guided by the overarching framework of the national CHC programme, research into ECD, their own professional expertise and experience, they tested and adjusted contents of each home visit. They consciously adopted an open and flexible approach where parents' own questions and concerns would be encouraged and given space in the content. Supported by the project coordinator and external supervision, the work methods and roles took shape within the teams of two professions (15, 138).

Parents gave very positive evaluations of the programme in the post-intervention surveys and interviews, indicating that the intervention responded to their needs. Strengthened parenting self-efficacy, improved knowledge of society's resources, increased levels of vaccination and a tendency of decrease in emergency-care consumption and hospitalization were reported in the evaluations. The professionals were also largely positive towards this new model of collaboration. They considered it to be a way of qualifying the service offered to families, to promote a trustful relation to families and also to increase parents' trust in the institutions of CHC and social services. The work method was also considered to provide professional learning and development for both professions (138, 139).

2.6.2 Consolidation and growth of extended home visiting

Considering the positive experiences of the implementation of the first programme cycle, efforts were made to continue offering the intervention in Rinkeby. While the programme had been integrated into the existing activities of the preventive social services from the start, in 2018, it was also included into the permanent CHC services in Rinkeby.

Following the first years of development of the Rinkeby home visiting programme, interest grew for extended home visiting in socioeconomically disadvantaged areas, among professionals within CHC and social services, as well as decisionmakers on regional and national levels. Favourable conditions were created through a decision in 2018 by Stockholm Region to fund the dissemination of the Rinkeby programme to other socioeconomically disadvantaged areas of Stockholm, as well as the already mentioned agreement in 2017 between the national government and the Swedish Association of Local Authorities and Regions for 2018-2020 (129). As a result, the Rinkeby programme and other resembling home visiting initiatives have been initiated in a large number of locations during the past years (140). In Stockholm Region, the Rinkeby programme is being implemented at 17 CHC centres. The interim report of the Agreement 2018-2020 indicated that 9 of the 21 national regions have introduced extended home visiting in collaboration between CHC and other actors, oftentimes preventive social services (141). The final report of the Agreement presented seven extended home visiting models, resembling the Rinkeby programme, being implemented in the regions. They contain between four and six home visits, and most of them include a social worker, but some also use other professions (129)

In 2019, the government designated funding and the assignment to the National Board of Health and Welfare to develop a pilot intervention within the CHC, with the aim of promoting good and equitable health among children, with special focus on socioeconomically disadvantaged areas. The initiative will run 2020-2023. The proposed intervention is a development of the Rinkeby programme. In addition to the six home visits, it includes an earlier initiation. At the end of the pregnancy, at an appointment at the pre-natal clinic, the family meets the midwife from maternity health care together with the CHC nurse and parental advisor from preventive social services. It also contains an additional appointment at the CHC centre at the age of two years, where both CHC nurse and parental advisor participate. The intervention includes first-time parents and parents having their first child in Sweden and is being implemented in different locations of the country (132).

2.7 RATIONALE

This research project has been developed in response to a number of gaps and needs that have been identified in the research literature on ECD and health inequities. They will be presented in this last section of the background chapter.

Research on interventions to improve child health and development in general, has increased considerably over the past decades, leading to improved understanding of what interventions have potentials to produce effects (3). Still, there are identified needs regarding knowledge on how to best develop complex interventions that involve several service sectors (3). Extended

home visiting by pairs of CHC nurses and parental advisors was a new initiative introduced via the Rinkeby programme. Research into this programme model was thus warranted.

With regards to research into health inequities in early childhood, relatively few studies on interventions with this focus have been identified (8, 9). There are also calls for more detailed understandings of the pathways to early childhood health inequities, in order to develop more effective actions (5-7).

These needs for investigating *how* interventions work and *why* they work better or worse, calls for the use of qualitative research methods. Qualitative research enables the description of phenomena (10, 142), such as an intervention and its different components. It is suitable when investigating complexity and underlying meaning, such as processes that involve human behaviour and relations (10, 142).

In order to improve efforts to reduce health inequities, it is important to discern and clearly present the reasoning behind the interventions and how they are supposed to generate effects. To establish and analyse programme theories, is a recommended part of this effort (17, 18). A review of early childhood home visiting found considerably improved chances of effects among those interventions that had a documented programme theory, which also coherently represented the needs of the target groups and the intervention components that were implemented in practice. The review indicated that coherence between programme theory, intervention, and implementation, was a central condition for success. Development of programme theory was also recommended in order to promote policy relevant understanding of home visiting programmes (18). Further, knowledge and understanding of a programmes' core components and processes are declared to be important in ensuring quality when programme models are replicated in new contexts (63, 71). Within the Swedish context, the Commission on Equity in Health pointed to the need of monitoring and evaluation of extended home visiting interventions in order to improve their future developments (114).

Figure 3 shows Whitehead's logic of how health inequities interventions are developed, indicating the position of this research project within the process (17).

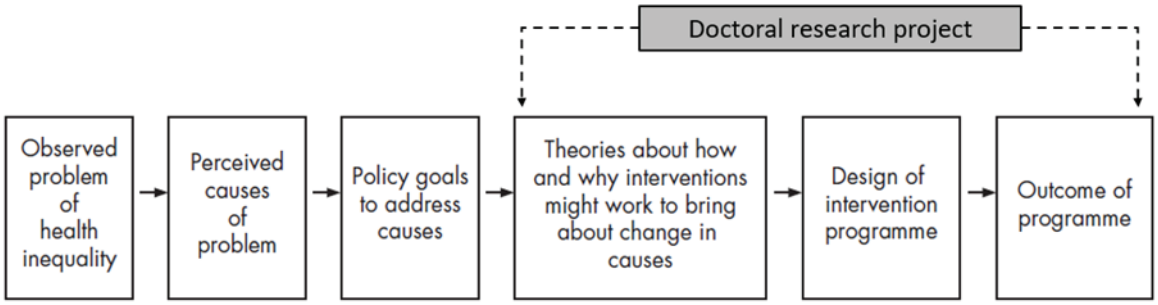

Figure 3. Location of the research project in the Logic of health inequities interventions. Adapted from Whitehead (17)

In this process, the first step of an intervention is to identify a problem of health inequities. The perceptions of what is causing the problem, will then guide the proposal of policy goals.

The intervention will be developed from assumptions of why and how it will have the capacity to promote the desired change in relation to the problem. These assumptions and the following design of the intervention is what composes the recommended programme theory. The intervention is implemented and will generate outcomes. When the outcomes of a programme are evaluated, they are able to provide feedback on the feasibility and relevance of the original theory, which in turn should promote revisions and improvements of both theory and intervention design.

The programme in Rinkeby was designed from an initial programme theory describing assumptions and proposed structure (16). It was then implemented in Rinkeby, and contents and work methods were gradually developed and adjusted by the professionals. From 2018, the replication of the intervention started in new locations. This research project spans over the period of 2013-2021, which includes the iterative phase of gradual structuring while implementing home visits, consolidation and integration into permanent activities, evaluation of outcomes and learning, and dissemination of the programme model to other locations.

This qualitative research project has aimed to produce knowledge and understanding of *how* the Rinkeby extended home visiting programme has been structured and implemented since 2013. It has investigated the theories of its workings among those who have implemented it. It has also sought to gain a deeper understanding of the relations between families' life situations and living environment, and inequities, during this period. With perspectives from the early childhood home visiting research field, as well as theories of the social determinants of health and health inequities, the thesis explores the role played by the extended home visiting programme in promoting a better start for the children in Rinkeby. This research project is part of a larger mixed-methods evaluation process carried out by researchers from Karolinska Institutet since 2013 (16, 138, 139).

3 AIM AND RESEARCH QUESTIONS

The overall aim of this doctoral research project was to increase knowledge about the design and implementation of a multisectoral, early childhood home visiting intervention, developed to promote health equity in a socioeconomically disadvantaged setting in Sweden.

The following specific research questions were addressed in the different studies composing this research project:

- What are the contents of the home visits? What difference in content can be observed with regards to families experiencing adversities or special needs? How do the contents express the theoretical underpinnings of the intervention? (study I)

- What practice has been developed and is applied by the parental advisors in the home visiting intervention? (study II)

- How can pathways to health inequities be observed in the life situations of the families participating in the intervention? How does the intervention interact with the pathways? What has been the influence of Covid-19 on the pathways and the intervention's capacity? (study III)

- What are understood to be the core components of the Rinkeby extended home visiting intervention and its implementation? How are the core components related to the promotion of health equity? (study IV)

4 MATERIALS AND METHODS

An overview of the materials and methods for the four studies of this research project is given in table 1. The chapter then starts by describing the study setting of Rinkeby and the different groups who participated in the studies. Following, the study designs, sampling and data collection processes are outlined. An account of the data analysis for each study is then given. Finally, issues of trustworthiness and ethical considerations of the studies are discussed.

Table 1. Summary of materials and methods study I-IV

	STUDY I	STUDY II	STUDY III	STUDY IV
Specific study objectives	To investigate the content of home visits and how it is related to the concepts of Proportionate Universalism and Nurturing care	To identify and describe the practice of the parental advisors during the home visits.	To investigate pathways to health inequities among the families in the programme. To explore the consequences of Covid-19 for families and programme.	To identify core components of the intervention and explore how they may contribute to reduced health inequities.
Material	Child health care nurses'(n=3) documentation of 501 home visits	Parental advisors' (n=3) documentation of 481 home visits Semi-structured interviews with parental advisors (n=7) Non-participant observations (n=3)	Semi-structured interviews with CHC nurses (n=16) and parental advisors (n=7)	Published documents about the programme (n=37) Semi-structured interviews with key informants (n=15)
Data collection period	2013-2016 Documentation	2013-2016 Documentation 2019 Interviews	2019 Interviews parental advisors 2020-2021 Interviews parental advisors and CHC nurses	2021 Documents and interviews
Data analysis	Data-driven Conventional Content Analysis	Constructivist Grounded Theory	Reflexive Thematic Analysis	Framework method

4.1 SETTING

Rinkeby is a community in the northwest of Stockholm, belonging to Rinkeby-Kista, one of Stockholm's 14 districts. In 2013, when the extended home visiting programme was initiated, Rinkeby had approximately 16.000 inhabitants. Rinkeby's inhabitants represent a large cultural diversity with around 90% having foreign background (60% foreign born and 30% born in Sweden with two foreign-born parents) (11). The socioeconomic situation of the area was among the worst in Stockholm. While the population in the city centre had a registered increase in average income of 64% 1991-2012, in Rinkeby-Kista it was 5% (12). The

employment rate in Rinkeby was 47%, compared to 85% in the Stockholm district with the highest employment rate (12). Among families with children, 42% experienced relative poverty, with household income lower than 60% of median income of families in Stockholm city. The city's average of relative poverty was 12% (12). When the Swedish police in 2015, published a list of 53 areas in the country that were considered to be vulnerable to high levels of crime as well as socioeconomically, Rinkeby was among the 15 areas classified as especially vulnerable (143).

With regards to child health, the indicators of the children in Rinkeby-Kista have been consistently worse than the average in the Stockholm region since the programme started. In 2013, 20% of Rinkeby-Kista's newborn were exposed to tobacco smoke (10% in county average); 15% of 3-year-olds had dental caries (4% in county average); and 4% presented obesity at the age of 4 years (2% in county average). Vaccination rates of measles, mumps and rubella at 18 months were 82% in Rinkeby-Kista, while the county average reached 97% (13). The CHC report of 2020 showed no major changes in child health in Rinkeby-Kista and the indicators of the district remained among the worst in the county (144). A further measure, the Care Need Index per parent, is used to assess the living conditions of children 0-6 years. It is calculated from seven socioeconomic variables to identify risk of ill-health. In 2020, Rinkeby-Kista presented the second highest score among all municipalities and city districts in Sweden (145).

4.2 STUDY PARTICIPANTS

The studies in this research project covers the years 2013-2021. Study I used data regarding the first phase of the programme 2013-2016. Studies II-IV investigated the whole programme period 2013-2021.

The Rinkeby extended home visiting programme recruited its first group of families between 01.09.2013 and 31.08.2014. It consisted of parents, where it was the mother's first child, who registered at Rinkeby child health care (CHC) centre when the child was born. The group included 101 children. They received the intervention between 2013 and 2016, until the child was 18 months, as described in section 2.6.1. In this first group, demographic data of the 99 mothers was collected (138). They came from 30 different countries. The largest group was 39 mothers from Somalia. Eight mothers were born in Sweden. About half of the group (46%) had lived in Sweden for 3 years or less, while 11% had lived over 10 years in the country. The most common reasons for migration to Sweden were for work or family reunification. A small group consisted of asylum seekers and a few mothers were undocumented and living in hiding. The years of schooling was varied among the mothers, with 39% having studied 0-8 years, 32% 9-12 years, and 29% having 13 or more years of schooling. Around 60% lived in rented apartments while 30% were living in temporary housing and 10% with relatives. A third of the mothers were living without a partner. Most of them (75%) were receiving financial parental allowance, while 17% had no income of their own.

After the first group of children had participated in the intervention, a period followed without specific programme funding at the CHC centre, and it was therefore reduced to four visits. In 2018, funding was approved by Region Stockholm and since then, the programme has been integrated into the general operations of the CHC centre. (At the preventive social services it has been part of the general operations since the beginning.) No specific data on the families participating in the home visiting programme after 2016 has so far been published. However, information obtained from the preventive social services stated that 235 families had participated in home visits 2017-2019. The three families who participated in observations for study II, were taking part in the programme during 2019.

Regarding the professionals from preventive social services working in the programme, three parental advisors participated in the first phase 2013-2016, all of whom left, and were replaced by four new parental advisors. The seven professionals were all trained social workers except for one who was a family therapist. They had 16 years of experience of social work on average (range 7-30 years), from areas such as case work, family counselling, school counselling, and institutional care. All of them were female.

From the CHC centre, 19 nurses worked in the programme between September 2013 and January 2021. Information on the 16 nurses who participated in this research project (see Sampling section 4.2.3) showed that they had between one and five years of experience in the programme, and nine of them had worked during the first programme phase 2013-2016. They were all female and specialist CHC or public health nurses.

The group of 15 key informants who participated in the interviews for study IV, were coordinators and managers on different levels within the CHC and preventive social services, who had been involved with the Rinkeby home visiting programme during different periods 2013-2021. There were also representatives involved in implementing the programme model in different areas of Stockholm and Sweden.

4.3 STUDY DESIGN AND DATA COLLECTION

The studies of this doctoral research project have been carried out with the use of qualitative research methods. Qualitative methods are best suited to investigate aspects such as human experience, interaction and principles (142), where the aim is to create understanding of complex phenomena and meaning in the form of latent structures (10). They enable the production of descriptions of phenomena, as well as the development of new concepts and theoretical models (142). Therefore, the qualitative methods were considered adequate for achieving the studies' aims and answering the research questions. With a large amount of qualitative research methods available, four different approaches were selected in order to best respond to the specific needs, challenges and possibilities of each study. The methods used for each study are presented below and summarised in Table 1 on pg.27, at the very beginning of the methods chapter.

Study I used Data-driven Conventional Content analysis (146) to analyse data in documentation that had been written by the CHC nurses during the first phase of the programme.

Study II applied Constructivist Grounded Theory (147). It used data from the documentation written by parental advisors during the first programme phase. This was followed by data collection through semi-structured interviews with parental advisors, and observations of home visits.

In study III, data was collected via semi-structured interviews with CHC nurses and parental advisors and analysed using Reflexive Thematic analysis (148-150)

Study IV applied the Framework method (151) in two steps: first analysing documents about the home visiting programme, and then for analysis of semi-structured interviews with key-informants.

The research methods are described in further detail in 4.4.1 on theoretical perspectives.

Effects of the Covid-19 pandemic

The onset of the Covid-19 pandemic had some direct effects on the sampling and study design of study III. The aim of this study was to develop a deeper understanding of potential pathways, leading from the lack of control in the living situations of families in the programme, to health inequities. It also aimed to understand the interactions of the home visiting intervention with these pathways. After a few months delay of the study at the start of the pandemic in 2020, the situation had improved enough to allow for data collection online. At this point it was known that the programme in Rinkeby had been impacted through periods without any home visits and limited participation of parental advisors. At the same time, it had also become clear that the pandemic represented a situation of lack of control affecting the whole population over a longer period. Therefore, it was considered relevant to include the event of the pandemic into the research focus of study III, in order to investigate how it had affected families, the programme and how it might interact with the pathways to health inequity. While this was successfully done regarding the data collection with the professionals, unfortunately it proved unfeasible to realise the strategy of data collection with parents (see further details in section 4.3.1 on sampling).

4.3.1 Sampling

During the first programme phase, a total of 119 children were registered at Rinkeby CHC centre during the inclusion period (01.09.2013–31.08.2014). Of those, 11 moved away from the area soon after birth. From the remaining group, the families of 101 children (94%) gave consent to and participated in the intervention and the mixed-methods evaluation study carried out by researchers at Karolinska Institutet (16, 138, 139).

Studies I and II of this research project, used the documentations from the home visits of the first programme phase 2013-2016, written individually by the CHC nurses and parental

advisors. It was decided to include the documentation regarding those families who had participated in at least two home visits, in the analyses of studies I and II. Therefore, the families of 98 children were included. This amounted to 501 visits documented by CHC nurses (study I) and 481 visits documented by parental advisors (study II).

Parental advisors were also used as data sources in studies II and III, via semi-structured interviewing. The whole group of seven parental advisors who had worked in the programme at any point between 2013 and 2019, accepted to participate. In addition, the four parental advisors, who had also worked during the Covid-19 pandemic in 2020, accepted to take part in a second interview in 2021.

Furthermore, data for study II was obtained via nonparticipant observation of parental advisors' practice during home visits. Purposive sampling was carried out with the aim to observe the work of different professionals. It was also desired to have a diversity of backgrounds of families. At the same time, for ethical reasons, it was decided to only include families where the professionals believed the researcher's participation would not in any way cause concern or discomfort to the family. The families were identified and contacted by the professionals, who explained the purpose of the observation and its voluntary nature, and asked of their interest in participating. Observations were carried out during visits to the first three families that accepted. These families were participating in the programme at the time of data collection in June 2019 and were not part of the sample of families 2013-2016. After observing three visits, theoretical saturation was obtained in the analysis process, in accordance with the Constructivist Grounded Theory method (147), and no further families were included.

CHC nurses were used as data sources for study III. All 19 nurses who had worked in the programme at any point from September 2013 to January 2021, were approached and 16 agreed to participate in interviews. Two persons declined to participate, declaring lack of time and not feeling able to contribute with relevant information, while a third person did not respond despite multiple contact attempts.

Study III had initially also foreseen data collection through interviews with parents participating in the home visiting programme. The planned recruitment strategy was to reach them using a written invitation which would be introduced and handed out by the CHC nurse during a regular appointment at the CHC centre. This data collection had been foreseen to take place in 2020. With the sudden restrictions and limitations imposed by the Covid-19 pandemic, the strategy was put on hold. After a few months, a meeting was held with the CHC nurses, and a shared decision was taken to try out the strategy despite the pandemic. The effort however, proved to be overwhelming for the nurses in this situation marked by high levels of stress and absences. After a period of unsuccessful attempts, a joint decision was taken by the author of this thesis and the manager at the CHC centre, to abandon the strategy and thus exclude data collection with parents from study III.

To compose the sample of documentation used for the first part of study IV, the author of this thesis collected all scientific articles and evaluation reports on the Rinkeby programme published by researchers at Karolinska Institutet. Further documentation was provided by one of the CHC nurses who had worked in the programme. This amounted to a total of 37 documents of different natures. These included research articles, reports, written guidelines, reports from government appointed inquiries, newspaper articles, filmed news reporting and interviews, podcasts on the internet, and filmed presentations from seminars. The documents were published between 2015 and 2021. The amount of data obtained was considered sufficient for the purpose of the first analysis of study IV and no more data was included in the sample.

To compose a sample of key informants for study IV, purposive sampling was applied. A list of names was compiled by the researchers responsible for the mixed-methods evaluation. It contained persons who had been involved in the different phases of the programme development, implementation and spread. The persons came from both CHC and preventive social services and represented different levels of the organisations. A few persons involved in the implementation of the programme in new locations were added, following suggestions given by the researcher carrying out the evaluation of the new programme sites in Stockholm. The list of 15 persons was considered to include those persons who could contribute with the most relevant as well as diverse information sought in the study. This assessment was made guided by the concept of Information power (152), which states that sampling should be made considering study aim, theoretical perspective, strategy of analysis, access to persons with relevant and varied knowledge and experiences, as well as the quality of information obtained through the interviews. All 15 key informants agreed to participate. After these interviews, a new assessment was done in relation to the information obtained, and it was not deemed necessary to include further informants in the sample.

4.3.2 Semi-structured interviews

Data was collected through semi-structured interviews for studies II-IV. Interviews were held with seven parental advisors in 2019 for studies II and III. The location was chosen at the convenience of the parental advisors, and the interviews took place at the premises of preventive social services, at Karolinska Institutet, or in the person's home. The interview guide had two parts, the first one with focus on the parental advisors' practice, developed based on the ongoing analysis of study II (further described in section 4.4.3 Constructivist Grounded theory). The second part focused on study III and was guided by the theoretical framework by Whitehead et al. (153), (described further in section 4.4.1). The interviews lasted between 1.5 and 2 hours and were recorded.

Follow-up interviews were held in December 2020 and January 2021 with the four parental advisors who had worked during the Covid-19 pandemic, for study III. Additional interview guides had been constructed, with specific questions on families' situations during the pandemic, as well as on the functioning of the programme during this period. These interviews were held and recorded via a video-conference app and lasted between 30 and 40

minutes. Semi-structured interviews were also held with 16 CHC nurses for study III, in December 2020 and January 2021. The same questions were used for the nurses as had been applied to the parental advisors for study III. The interviews were held and recorded via a video-conference app and lasted between 20 and 50 minutes.

The semi-structured interviews with 15 key informants for study IV were held in May and June 2021, also via video conferencing with visual and sound recording. One of the interviews was carried out with two of the informants together, in accordance with their wishes. The interviews lasted 40-85 minutes. The interview guide had been developed based on the findings of the document analysis that composed the first part of study IV (further described in section 4.4.5 Framework method).

All interviews were carried out by the author of this thesis, who also performed all transcriptions.

4.3.3 Nonparticipant observations

The final step of data collection for study II was carried out through nonparticipant observation. As opposed to participant observation, where the researcher actively takes part in the observed activity or context, in nonparticipant observation, the researcher observes the situation and subjects, with their knowledge, without engaging in the activities or interacting with the subjects (10). At the start of the visit, the author of this thesis presented the study purpose and answered any questions. The parents were given written information and signed informed consent. A protocol guided the observations, placing the main focus on the interactions of the parental advisor with the parents, child and CHC nurse, as well as the role taken by the parental advisor in the facilitation of the meeting. The observations were registered by note taking. The notes were digitalised immediately after the home visit. Reflective memos were also written about the observations in accordance with the Constructivist Grounded Theory method (147).

4.4 DATA ANALYSIS

This section starts with a description of theoretical perspectives of the research methods as well as theories applied in the studies. It then details the analysis process for each of the four studies.

4.4.1 Theoretical perspectives

Theory, expressed or unspoken, guides all parts of a research study, from the formulation of an aim, definition of data collection and analysis, to the discussion of results and drawing of conclusions (154). It is therefore important in qualitative research to identify and indicate the theoretical perspective applied in a study (155). Some research methods have inherent theoretical perspectives that derive from their epistemological roots, while others may function more as technical tools to sort, compile and analyse data without any specific declared theoretical underpinnings. Methods may also be open for the integration of external theoretical perspectives into the analysis process. This can be done to a smaller or larger

degree: the whole study may be structured based on a specific theory; one or more theories may provide a starting point that inspires the study and provides a frame; or a theory may be used to sharpen and qualify the analysis (155).

The choice for study I, was a Data-driven Conventional Content analysis method with no inherent theoretical perspective, and where the researcher develops codes and categories with starting point the collected data (146). In order to deepen the understanding of the meaning of the results, once the final categories had been determined in this study, these were compared to the theoretical framework of Nurturing care (22) (presented in section 2.3.1) and the results were also analysed and discussed in light of the concept of Proportionate Universalism (20, 21) (presented in section 2.2).

For study II, Constructivist Grounded Theory was used, which in itself has an expressed theoretical perspective of Social Constructivism (147). In this method, the researcher is comprehended as a co-creator of data during interplay with the research participants and under constant influence of the social context (147). As opposed to Glaser's and Strauss' original Grounded Theory (156), where the researcher is expected to take the role of neutral observer in an objective reality, the Constructivist Grounded Theory invites the researcher to strive for an insider view of the research problem and context. Subjectivity is a part of the analysis process and should be explored through a reflexive approach that is open to variation and diversity (147). On the other hand, Constructivist Grounded Theory also aims for the development of a new theoretical framework or model from the data that is being studied, and therefore it is not compatible with the integration of external theoretical perspectives in the analysis (147).

For study III, Reflexive Thematic Analysis (148-150) was chosen, a method that in its application resembles the Content Analysis of study I. However, it has an inherent theoretical perspective that is close to the Constructivist Grounded Theory in its expressed emphasis on the researcher's subjectivity as an important part in the analysis, through reflexive interplay with the data, theory and interpretation. Reflexive Thematic Analysis offers flexibility with regards to including external theoretical perspectives, which was done in study III.

The external theoretical framework that was used in study III was developed by Whitehead et al. from a synthesis of theories on how low control, or powerlessness, in the living environment may lead to health inequities (153). In this framework, hypothetical pathways are conceptualised on individual, community and societal explanatory levels. On the individual level, low control over daily life, can lead to health inequities via chronic stress responses, exposure to health damaging living environments or health damaging behaviour. The community level pathways concern the experience of living in concentrated disadvantaged environments with neighbourhood disorder, segregation and lack of security, leading to a sense of powerlessness and collective mistrust, which could result in poorer mental and physical health. The societal level regards situations where socio-political upheaval or cultural processes of, for example gender discrimination, influence the degree of control of large segments of the population, leading to health inequities. This framework

contributed towards the development of interview guides, as well as analysis and interpretation of findings in study III.

The Framework method, which has been developed within policy research and permits the use of external theories (151), was considered a suitable research method for study IV, particularly as external theoretical components played a structural role in this study. One of the external components was an implementation framework, the Consolidated Framework for Implementation Research (CFIR) (157), that was used to investigate components of the intervention and implementation process of the Rinkeby home visiting programme. The analysis was further enriched by a number of additional intervention components extracted from the international home visiting literature. These intervention- and implementation components created a base for the structuring and realisation of the whole study.

4.4.2 Data-driven Conventional Content analysis (study I)

Study I investigated the content of home visits through the child health care nurses' documentation. Considering that the data was written in a summarised form which would not be suitable for more complex methods, the Data-driven Conventional content analysis was chosen. This analytic approach takes its starting point in the data without any preconceived theoretical perspectives or analytical categories (146).

The analysis in study I included the documentation produced by three CHC nurses after each home visit during 2013-2016, which covered 501 visits to the families of 98 children. They followed a template with spaces for early childhood development (ECD) topics such as "feeding" or "child safety" as well as sections to register parents' questions, concerns and other issues that were discussed during the visit.

The documentation was organised so that all visits to a family was grouped together (visit 1 followed by visit 2 and so on). The texts were read through once to create an initial understanding of the material. It was then regrouped into six groups so that the first visit to all families composed a group and were analysed together, and then the second visit, and so on, until visit number 6. The analysis started with line-by-line coding of all first visits, using the Open Code software, followed by the creation of sub-categories and tentative categories. The same procedure was followed for the second visit. Comparison of codes, sub-categories and categories between the two groups of visits proved very similar and a more robust coding scheme was taking form. This initial scheme of sub-categories and categories was kept for the rest of the analysis, while still being reviewed, and coding for the following groups of visits, continued to be developed with starting point in the data. On completion of this step, descriptions of the content of each visit were written. The final conceptual model of categories, sub-categories and their relations was then produced.

In order to gain further understanding of the processual nature of the content in terms of patterns over time, a simple frequency count was carried out in a following step. The presence of each sub-category in the content of the different sections of the templates, was

noted for all visits. This resulted in an additional overview of the content which could be compared for each group of visits, 1 to 6.

Finally, an additional analysis was performed to explore the content of visits delivered to families with additional needs or where adversities existed. Through purposive sampling, 18 families were identified, and their visits were analysed comparatively, searching for common characteristics and patterns of content. This group of visits was, in turn, compared to the conceptual content model and process analysis.

4.4.3 Constructivist Grounded theory (study II)

Study II aimed to investigate the work methods and roles developed by the parental advisors in the home visiting programme. This could be considered a new and previously unstudied subject of a processual nature, and thus the Constructivist Grounded Theory was deemed suitable (147). Constructivist Grounded Theory is similar to the original version of Grounded Theory (156) in terms of basic process of data collection, coding and analysis, where constant comparison between new and already collected data and concepts leads to depth in the analysis and a gradual development of theory. It is also the gradual deepening of the analysis that guides the need of additional data collection. The analysis is developed supported by the continuous writing of analytical notes, memos. The Constructivist version of the method, however, places more emphasis on the collection of extensive data and allows for a more flexible structure of analysis (147). Considering the availability of approximately 400 pages of documentation by the parental advisors for this study, the Constructivist Grounded Theory was considered a relevant option.

The analysis was initiated by reading through three parental advisors' documentation of 481 home visits to the families of 98 children. The parental advisors were guided by three questions when writing: *What was my focus during the home visit?*, *How did I act within this focus?* and *What are my thoughts, reflections and impressions after the visit?*. The documentation contained descriptions of their observations and actions during the home visits, as well as their reflections of the meetings with the families. This documentation ranged from approximately half a page to several pages of text per visit. Open coding was performed in a line-by-line manner, using the Open Code software. Following the coding of the documentation of 76 visits (16%), it was possible to develop tentative categories for the data. Based on these categories, the rest of the documentation was analysed using focused coding. Constant comparison was applied between codes and categories as the analysis progressed. Memos were continuously registered in Open Code during the coding process. Extensive handwritten memos were also produced in parallel. When the coding of documentation was finalised, tentative categories and memos were reviewed, and the categories were further revised and developed. These categories served as the base for the creation of an interview guide.

Subsequent interviews were held with the three parental advisors who had worked in the first programme cycle 2013-2016 and produced the documentation, and four parental advisors who had joined the programme from 2016 onwards. Transcription and analysis were carried out after each interview, and theoretical sampling through adjustment of the interview guide

was done as the process progressed. At this point the theoretical categories were confirmed and the conceptual model was developed.

Furthermore, three nonparticipant observations of home visits were performed, and the notes taken were analysed using focused coding. The results of the coding and the memos from the observations were compared with the theoretical categories. After this step of data collection, the theoretical categories were saturated, and the theory was written up in its final form together with the consolidation of the conceptual model.

4.4.4 Reflexive Thematic analysis (study III)

Study III aimed to investigate pathways to health inequities among the families in the programme, and the theoretical framework of such pathways by Whitehead et al. (153), had oriented the development of interview guides. However, the framework was not applied early in the analysis process to guide deductive analysis or pre-determine categories or themes. Instead, it was deemed beneficial to perform the analysis with starting point in the data itself. The Reflexive Thematic Analysis method (148, 150) was considered appropriate for this study. In this method, coding and theme development are understood to be an integrated process and the use of pre-determined themes is therefore not considered to be in agreement with the methodological proposal. The researcher's subjectivity is considered an analytical resource in the analysis process of iterative engagement with the data through reading, immersion, reflection, questioning and writing (150).

All transcribed interviews were read through and initial notes were taken in the first analysis step of data familiarisation. Systematic coding was then carried out on all interviews, using the Open Code software, while analytic notes were produced in parallel. The development of themes from the codes was then guided by the theoretical framework of pathways (153), attempting to identify such patterns in the collated data. An initial scheme of themes was developed, and they were tentatively organised in pathways on the explanatory levels proposed by Whitehead et al. (153). After presenting and discussing the findings to the research group and colleagues at the department, the themes were reviewed, and final pathways were established. The findings were compiled in an interpretative text accompanied by a conceptual model.

4.4.5 Framework method (study IV)

The aims of study IV were to establish what elements and aspects of the Rinkeby home visiting programme could be considered as core components, and to detail a programme theory that represented how the programme was being implemented in practice. The aim was also to investigate, through the programme theory, how the intervention is expected to contribute towards improvements of health inequities from early childhood. For this study it was deemed suitable to use a qualitative analysis method of a more pragmatic nature, which is the case with the Framework method, initially developed within the area of applied social policy research (151). Additional theoretical input was provided by the Consolidated Framework for Implementation Research (CFIR) (157); from the Nurturing care framework (22) and from nine reviews and key articles from the international research field of early childhood development (ECD) and home visiting.

The study was developed in two phases: a document analysis followed by semi-structured interviews with key informants. The first step was to develop an analytic matrix which was applied in order to map components of the intervention and implementation processes. The CFIR framework with its 39 constructs and sub-constructs in five domains created the base for the matrix. It was also deemed relevant to introduce additional components specifically regarding ECD and home visiting interventions. Thus, the components of the Nurturing care framework were introduced into the matrix together with a list of components drawn from the ECD and home visiting literature, totalling 53 components in 10 categories. The data for mapping in the first matrix were derived from 37 documents with information about the Rinkeby extended home visiting programme. They contained text, audio and video recordings.

All material was read through, listened to and assisted for familiarisation. Analysis was firstly carried out on the written materials by indexing components from the matrix on the corresponding passages in the texts. These passages were then chartered into the matrix, in its entirety or summarised. After identifying the relevant passages in the recorded data sources, these were transcribed and analysed as described above. With all data chartered into the matrix, each of the 53 components was analysed individually across the set of data. This exercise resulted in a written synthesis with a summary of the available information and information gaps, as well as analysis of meaning, relevance and indications of questions that arose from the analysis. Based on this analysis, a tentative programme theory was developed together with an interview guide, which then guided the interviews with 15 key informants in the second phase of the study.

Familiarisation was obtained through reading all interview transcripts twice and the production of analytical notes. Thereafter, an analytical matrix was developed, and three transcripts were tentatively indexed in accordance with the matrix categories. At this point, the matrix was revised into 31 categories, after which the first three transcripts were re-indexed, followed by indexing of all remaining transcripts. The indexed data excepts were summarised and chartered into the matrix. Analysis was performed of the chartered data of each category and then a final analysis of the complete matrix. This analysis rendered a final version of the programme theory with core intervention components; an interpretative text composed of three main themes; and a description of the programme's target audience as well as the key implementation components and conditions.

4.5 TRUSTWORTHINESS

In order to assist the researcher and reader of a study in judging whether a satisfactory level of scientific rigour has been achieved in the application of the method during the research process, it is recommended to assess trustworthiness. The concept was originally developed within the quantitative research area and is commonly composed of the criteria of: Internal and External validity, Reliability and Generalisability (158). The corresponding criteria of Credibility, Transferability, Dependability and Confirmability, to be used for qualitative research was proposed in the 1980's (158). These have since been widely used, further developed and also criticised and refuted by qualitative scholars (159). This lack of agreement mirrors the broad array of philosophical and epistemological orientations guiding

the large diversity of methodological approaches that all gather under the umbrella of Qualitative research (150, 159, 160).

Within the Swedish health research tradition, a set of criteria proposed by Graneheim et al. for trustworthiness in studies using Content analysis, are commonly used, namely: Credibility, Dependability and Transferability (161). Another scholar in the Scandinavian qualitative health research, Malterud, further stresses the importance of Reflexivity as a standard for judging qualitative studies (160). The author of this thesis has been guided by the four mentioned criteria when striving to ensure trustworthiness of the studies.

Credibility refers to how well the proposed focus of the research study was addressed through the researcher's choice of method, sampling, application of method, reporting of findings and consideration to context (161).

The author of this thesis has attempted to provide sufficient descriptions of setting, study participants, as well as the procedures of data collection and analysis. Declarations have also been made about the use of theory and justifications for choice of research design, all in order to provide elements for judging the credibility of studies and findings.

Sampling for studies I-III encompassed all available documentation as well as all professionals with experience of the programme, with the intent to include diversity of positions and perspectives. For study IV, the criteria of Information power was applied in order to ensure a relevant size and composition of sample (152). Efforts were made to identify persons who had been involved in the programme during different periods 2013-2021, and who represented different organisational levels in the CHC and preventive social services organisations. Further, persons involved in implementation of the intervention in new locations, were included in order to ensure additional diversity of perspectives. The information obtained through the semi-structured interviews was assessed and deemed relevant and sufficient with regards to the study aim. It was then decided that the sample did not need to be increased.

Studies II and IV used a variety of data collection methods in order to strengthen the credibility of the findings. In study I, a frequency count was applied as an additional strategy to confirm the findings of the Content analysis. Comparison was also made with findings of questionnaires and in-depth data collection with parents, that had been realised previously in the evaluation of the home visiting programme. Efforts have also been made to identify and include a diversity of representative quotations from the transcripts in the reporting of findings.

A practice of continuous registration of the processes of data analysis as well as decision-making during the studies was adopted. In addition, the writing of analytic notes or memos was applied in all studies. This has facilitated the attempts to report on the research setting, process and findings as thoroughly and adequately as possible. It also facilitated a regular sharing of progress with supervisors, who have provided essential input in the definitions, review and discussions of sampling, data collection, analysis and interpretation, assessing as well as contributing toward the relevancy, plausibility and trustworthiness of findings. Preliminary analyses and findings of all studies have also been presented and discussed with co-researchers in order to improve quality and credibility of the final analyses and interpretations. Furthermore, preliminary findings of studies I and II were shared and

discussed with the professionals from Rinkeby and other locations. Unfortunately, the Covid-19 pandemic restricted the possibility for member checks during studies III and IV, which might have negatively affected their trustworthiness.

The criteria of *Dependability* should assess how well the researcher has dealt with possible instabilities in the research process over time that may lead to inconsistencies, such as changes in data collected at different time points or alterations due to decisions taken by the researcher during the process (161).

The main strategy to ensure dependability was to make comparison of older and newer data during data analysis, for example between documentation written 2013-2016 and semi-structured interviews from 2019 in study II. These comparisons assessed similarities and differences in data over time. As an example, from study II, it was possible to identify parental advisors' concerns about the process of developing the work method in the early years, which was not present in the later data. Such differences, however, was not judged to influence the quality of data or dependability of the findings. Similar comparisons were made in studies III and IV, between data collected from professionals who had worked during the early days of the programme, and those who were currently involved in home visiting. In study III, an assessment was also made of the development of socioeconomic, demographic and health indicators over time in Rinkeby, to ensure that no major changes had taken place in the context during the study period 2013-2021.

Transferability regards the possibilities and limitations of transferring the findings of the research to other groups or contexts (161).

The studies included information of setting and participants that was considered sufficient to allow readers to appraise the transferability of findings. The processes of data collection and analysis were also clearly described. Additionally, efforts were made to provide rich presentations of results and include representative quotes from the data.

The importance of *Reflexivity* rests on the understanding that the researcher's own values, perspectives and positions will always influence choice and decisions taken during the research process. It is therefore important that the researcher makes efforts to create awareness of and transparently acknowledge the own preconceptions, perspectives and positions regarding the studied subject and how these influence the choices made during the process (160).

To this end, the practice of writing analytic memos has been a useful tool in creating awareness of own values, principles and preconceptions. The memos have provided a space to register thoughts, ideas and questions, and given the possibility to return and reflect on them later on in the process. Sharing and discussing progress and findings throughout the process, with supervisors and different groups has also given ample opportunities to confront and review own assumptions and ideas. Some further considerations on the reflexivity of the author of this thesis is presented in section 6.5 on methodological considerations.

4.6 ETHICAL CONSIDERATIONS

The studies of this doctoral thesis regard an extended home visiting programme specifically targeting first-time parents living in a socioeconomically disadvantaged area, which is

frequently portrayed in negative terms in the media. The main ethical concern was thus to take great care so that this research did not contribute towards any stigmatization of the families or the area. The principal considerations regarded Study III, with focus on the situations of lack of control and powerlessness of the families. It has indeed been argued that there is already sufficient understanding of mechanisms between disadvantage and health inequities, and therefore cost, in terms of labelling and stigmatisation of communities, may outweigh the benefits of any such further research (162). However, after careful deliberation it was decided that the importance of producing scientific knowledge that may contribute towards qualifying extended home visiting services in socioeconomically disadvantaged areas, was an important argument for realising the study. The onset of the Covid-19 pandemic further reinforced beliefs in the relevance of the study. Unfortunately, the pandemic also hindered the inclusion of parents as interview subjects in study III. This created another ethical dilemma, namely, the absence of families' own voices and views in the data. Attempts were made to account for this by making clear in the published article that the data only contained the views and understandings of the professionals and acknowledged the absence of parents as a considerable limitation of the study. It was also emphasized that findings of situations of lack of control might be experienced by some of the families. However, these situations should not be considered as general phenomena.

The only data collection carried out with parents was through observation of three home visits. With the concern of exposing families to discomfort, the number of visits were kept to a minimum and the strategy was finalised as soon as theoretical saturation of categories was achieved in the analysis. The families were identified by the home visiting professionals, based on the criteria to consider only those families where they felt secure that no harm would be caused by the observations. At the beginning of the visit, the author of this thesis stressed that the aim of the observation was to gain understanding of how the parental advisors worked during the visits, and it did not in any way involve assessment of the families or their skills.

Ethical considerations were also made with regards to the CHC nurses and parental advisors who were the principal sources of data in this research project. The staff groups in Rinkeby are rather small and the professionals are well known among the families in the area. It was therefore important not to publish any information, for example quotes, that could be recognized as coming from or talking about a particular individual even though no names were mentioned. This concern affected studies I-III, where some specific issues or examples could not be used in order to protect the professionals' anonymity. The same concern was present with regards to the key informants in study IV, and similar measures were taken in the presentation of findings.

All studies were covered by ethical permits ref. nr. 2013/877–31/1 and 2014/327–32, while studies II-IV were also considered in the ethical permit ref. nr. 2019-01676. Approval for the studies was further obtained from Region Stockholm and the City of Stockholm.

The first group of parents 2013-2016, received written information about the mixed-methods evaluation process when they were offered to participate in the home visiting programme. They were informed that it was voluntary to participate in the evaluation. The information was available in the most common languages among the families, and the parents signed

informed consent forms. The three families who participated in the observations in 2019 (study II) were given oral information about the study beforehand by the CHC nurse, during an earlier visit to the CHC centre or over the phone. They were informed of the voluntary nature of participation. At the beginning of the home visit, the author of this thesis explained the objective of the observation, gave information regarding informed consent, and answered parents' questions. Written information was presented to the families in Swedish or English and in those cases where an interpreter was required, all information was read, translated and checked for comprehension before signing the consent form. All parents present at the observation signed the informed consent.

The professionals working in the programme during 2013-2016 had given written informed consent to participate in the different data collection strategies involved in the first part of the mixed-methods evaluation (including the documentations used in studies I and II). All professionals participating in the semi-structured interviews (studies II-IV) were informed of the objectives of the studies beforehand and that participation was voluntary. The parental advisors (study II) received written information and signed informed consent before initiating the interviews. Interviews for studies III and IV were carried out on-line due to the Covid-19 restrictions. All participants were sent detailed written information beforehand. Before the start of the interview, the information was repeated and the interview subjects were asked to give informed consent orally, which was recorded.

5 RESULTS

This chapter presents summaries of the results of each of the four studies of this research project.

5.1 CONTENTS OF THE HOME VISITS

Study I focused on investigating the contents that were dealt with during the meetings between professionals and families; how the contents were delivered over the course of six home visits; and what content was present in the visits to families with extra needs.

The analysis of CHC nurses' documentation rendered three main categories and 12 sub-categories that were displayed in a conceptual model, showing the nature and relation of the contents during the visits. The first main category, *The healthy child*, constitutes the centre of the meeting, where a child focus is introduced at the beginning of each visit. It contains information and conversations around *Health; Care; and Development*, three sub-categories which appear in an interrelated manner in the conversation.

The second main category, *Strengthening the new family*, surrounds the child at the centre of the model, and it has three sub-categories that hold contents on *Promoting mother's health and active role*; *Promoting father's active role*; and *Establishing relationship between parents and child*. Within this second main category, the conversation emphasizes the importance of the parents in promoting the child's development through attachment, interplay and stimulus. The father's active engagement in the care of the child is encouraged recurrently during the visits, and the relationship between the parents is a further topic discussed.

The third main category, *Influence and support in the external context*, is displayed as an outside layer that surrounds the family in the conceptual model. It is composed of factors and conditions that exert positive or negative influence on the families, in five sub-categories: *Family background and situation*; *Support network*; *Homeland culture and customs*; *Medical care*; and *Societal structures and resources.* This main category represents conversations around the families living- and housing-situations, family structure and access to support. The parents reflect on their own background and values and how these affect their own parenting. The professionals offer information on where, how and when to seek healthcare, and introduce different services that may be accessed, such as open daycare and language courses.

A twelfth sub-category named *Plans and initiatives*, is located separately from the main categories in the conceptual model. It contains content discussed mainly during the last home visit and focuses on the family's hopes and already initiated projects for the future.

The following excerpt is an example of documentation of one home visit.

"Good relations: Encourage language – speak native language. Acknowledge good collaboration between parents and grandmother. Parental advisor acknowledges/strengthens the parents' relation.

Information: Sudden infant death (have not heard about it before). My child screams (show shaking on doll). Vitamin-D. Depression – mother is feeling a bit downhearted.

Own questions: Is it ok to travel abroad during the summer? Talk about mother's and father's feelings. Delivery – still feels pain. Advice on how to make breastfeeding work – mother wonders how to do. I am often sad – cry, tells about stress and how she handles it." (Home visit 1)

The additional analysis of the home visiting process for families with extra needs or adversities, indicated that they received the same contents as the rest of the group, at the same time as their specific needs and issues were acknowledged and dealt with recurrently during the visits. In the presence of urgent problems, these were given precedence over the general contents in the conceptual model. Any thematic content that had been left out during one visit, was introduced during the next. The professionals would refer the extra needs to relevant support services. If necessary, the professionals would also book extra meetings with the parents. Only in a few crisis situations, the general content of the model was not covered with the family.

The following excerpts were part of the documentation of visits to one family where extra needs had been observed.

" Worry about vomiting. Mother talks and tells a lot. Conversation around worry and how she can deal with it." (Home visit 2)

"Is worried that she wants to sit – can it be dangerous? Conversation around this.[,,,]Conversation around mother's worry about cold and that she doesn't want to eat." (Home visit 3)

"Conversation around mother's worry – is very worried about many things. Talk about how to handle worry." (Home visit 4)

"Worry about the weight – information that she is growing very well. Conversation around mother's worry and how she handles it." (Home visit 5)

5.2 THE PRACTICE OF THE PARENTAL ADVISORS

Study II investigated the practice that had been developed by the parental advisors in the programme and used by them in their interaction with families during the home visits. The study was composed of analysis of the parental advisors' documentation of home visits, semi-structured interviews with parental advisors, and observation of home visits.

The Constructivist Grounded theory analysis resulted in a written theory and a conceptual model of the practice of the parental advisors. It contained one core category and four sub-categories. The core category, *Working in the present situation*, describes how the parental advisors base their practice with the families on the situation that arises during the home visit. The parental advisor observes the child and parents and their interaction, and what is

happening in the room is what guides the decision on the content to be introduced. This content might be a topic within the child's current stage of development, or something that is of relevance to the family at that moment.

The situation-based work method is about meeting the family on their own conditions and *Create interactive encounters with the family*, which is the first sub-category in the model. Here, the parental advisor assumes the role of a *Facilitator*, and applies communication techniques to engage parents in the conversation. It is the active and supportive conversation that creates a base for the intervention. Content is shared with the families through three strategies (sub-categories), where the parental advisor assumes distinct roles: *Strengthen positive parenting – the Coach role*; *Offer individual support – the Counsellor role*; and *Connect to additional resources – the Bridgebuilder role*.

As a *Coach*, the parental advisor acts by encouraging and acknowledging the knowledge and positive behaviours parents already exhibit. It is a way to strengthen parents to assume responsibility and develop their own parenting skills. The parental advisor also identifies extra needs or adversities in the family. When these occur, explorative questions are asked in the conversation and individual support is offered if there is need and the family wishes. In this role of *Counsellor*, the parental advisor can provide psychosocial support during the home visit or book an extra individual meeting. Finally, the practice also includes referring the family to additional resources, and the parental advisor acts as a *Bridgebuilder* between the family and services. It may entail helping the family to find services, book appointments, and also to accompany them, for example to the open daycare, if they need. This strategy attempts to break isolation and promote integration of families in the community. In those cases where the family needs support from the social services that exercise public authority, the parental advisor can act as a guide if the family wishes.

"The parents should feel that they are seen. They should feel listened to and understood by us. And then I try to use my responsiveness to perceive the parents' situation. And also pick up a lot of the things that are working well and acknowledge them for this. So they feel strengthened. And at the same time, also to dare, and I feel quite fearless in this, to dare to ask investigative questions where I feel that 'maybe there is an issue here', so that hopefully I will be perceived as a safe person to receive anything they might want to tell me about." (Interview with parental advisor)

5.3 PATHWAYS TO HEALTH INEQUITIES

Study III explored the home visiting professionals' perceptions of pathways, from situations of lack of control or powerlessness in the lives and living environments of the families in the programme, potentially leading to health inequities. The study also investigated the influence of the Covid-19 pandemic on the pathways and the home visiting programme. This study covered the whole period of the home visiting programme 2013-2021 and therefore also families with children who were in preschool or had reached school age.

The analysis resulted in five observed pathways, from different situations of low control that could negatively affect the health and wellbeing of parents and children in the programme and potentially cause health inequities. The first four pathways were found on an individual level: *Families facing instability and insecurity*, *Caring for children in crowded and poor housing conditions*, *Experiencing restricted access to resources*, and *Parenting with limited social support*. The fifth pathway, *Living in a segregated society*, was located on the community level.

Families facing instability and insecurity, was the most commonly acknowledged pathway, where insecurity around housing, work or economy might lead to chronic stress and affect the physical and mental health of parents, which in turn may have a negative influence on the child's health and development. In this pathway, the Covid-19 pandemic was perceived to have become an additional source of worries for the parents, as many of them were working in environments with high risk of exposure to the virus, but also through increased worries of losing jobs and income.

"There are several parents working in public transport, and they are around a lot of people, and there is a great worry about being infected by Covid in these environments. They tell me a lot about this. And more people are worried about losing their job, and those who have lost their jobs. The burden of providing for the family seems heavier now." (Interview with CHC nurse)

Caring for children in crowded and poor housing conditions, was also an observed situation initiating a pathway with negative effects on parents' health and parenting capacity. It also had potential direct detrimental effects on children's health, for example through restricted possibilities to cook food or ensure child-safety in the home. The Covid-19 pandemic showed multiple negative influences on this pathway, among other things, through the increased risk of spread of infection, as well as increased levels of stress and conflict in crowded housing conditions during Covid restrictions. Direct influence on child health was also observed, as many children were kept home from preschool and school for long periods, which led to increased screen use, decreased physical activity and worse food habits, resulting in large weight increases in children.

Experiencing restricted access to resources, described the experience of exclusion from society due to not speaking Swedish or having low levels of education, which created considerable barriers to access information, health care, social services or other resources.

"And the lack of language that excludes you from society, I think that is the largest vulnerability. Not to have any connection with a Swede or any sense of belonging in this context. To have very little information about the Swedish society and not know how to search for things." (Interview with parental advisor)

The pandemic created further barriers through partial or full close down of services and limited access to interpreters. In the home visiting programme, the parental advisors did not

participate in a large part of the home visits due to safety protocols. This was perceived to have decreased the programme's capacity to handle sensitive issues, to offer psychosocial support and to guide parents to additional support within the social services when needed. Fathers' participation in the home visits were also limited during the pandemic.

Some of the families in the programme are new in the country, without relatives or social network. *Parenting with limited social support* was observed to be a potential source of stress and negatively influence health and parenting capacity in this group. The home visiting programme and the open daycare represented important channels for breaking isolation for these parents, but the Covid-19 pandemic limited the functioning and access to these activities and thus potentially increased isolation and stress.

On community level, the experience of *Living in a segregated society*, was identified as a source of negative influence on the inhabitants' health. The past years' closing down of community resources in the community, discrimination and the feeling of exclusion from society were aspects of this pathway, that also interacted with the pathways on individual level. Covid-19 was observed to exert multiple negative influences also on this pathway, both due to high spread of the infection in the area during the first wave of the pandemic, but also with regards to the negative and potentially stigmatizing reporting of media in relation to Covid-19 and the community.

5.4 CORE COMPONENTS AND PROGRAMME THEORY

The concluding study IV, drew on the findings from studies I-III as well as other published materials on the home visiting programme, to outline a programme theory which was critically reviewed and discussed by key informants in semi-structured interviews. The final analysis rendered a programme theory of the Rinkeby home visiting programme, where the intervention is composed of five core components, that are expected to generate effects on children and parents and contribute towards the promotion of health equity.

- Extra time in the family's home situation
- Qualified team in practical collaboration
- Flexible contents in a comprehensive ECD frame
- Focus on the child and caretakers from a strengthening perspective
- Multifaceted health promotion and prevention

Figure 4. Core components of the Rinkeby extended home visiting programme

Core components - A key aspect of the intervention is to provide CHC time in addition to the appointments within the national CHC programme, at the same time as the opportunity is provided to establish early contact with and use the resources of the preventive social services. Visits in the home environment promote a more equal and relaxed meeting between professionals and families. The highly qualified CHC nurses and parental advisors who deliver the intervention through practical teamwork, where both professions contribute with their competencies and expertise, represent the central pillar of the programme. The intervention is composed of general ECD contents, which are adjusted to each family's needs and situation. The skills of the professionals allow for balancing the general and specific content in interaction with the family. The child-focus and strengthening of parents, are perspectives that permeate contents and work methods of the intervention. The intervention spans over a wide range of themes and actions and covers health promotion, prevention, psychosocial support and access to society's resources.

Expected effects - The programme theory delineates that the intervention is expected to promote children's good health and development, directly through the home visits as well as indirectly via the strengthening of parents and access to welfare services. The importance given to parents and parenting during the home visits is supposed to contribute to parents' health and well-being, their knowledge of child development, their parental self-efficacy, and result in active and responsive parenting by both parents. The expectations are also that knowledge of and trust in society's actors and resources are promoted and that families access and use the relevant services. Expected long-term effects are families' integration and participation in society.

Overarching goals- With regards to the programme theory's overarching goals of good and equal conditions for healthy development, and the levelling of the social gradient in health, the key informants understood that the intervention represents a force in the right direction. However, in view of the complexity of the workings of the social determinants of health, it was believed that the programme has the capacity to create better conditions, but that it only represents one step on the way towards health equity. Availability and accessibility to welfare services in the community is also seen as an important influencing factor. Furthermore, in light of the structural challenges often experienced by the families, the intervention is perceived to be a limited driver for change. The key informants further recognized the potential strengthening of the intervention, for example by extending its length of duration and increase collaboration with additional actors and services.

6 DISCUSSION

6.1 MAIN FINDINGS OF THE STUDIES

Study I showed that the Rinkeby home visiting programme offers content with focus on the health, care and development of the child; parenting and parenting practices; and the influence and support of the family's surroundings. Study II demonstrated that the visits cover health promotion, prevention, early detection of adversities, psychosocial support and referral to additional resources. Studies I and II indicated that the content and work methods are flexible and families who have extra needs receive additional adjusted content and support. Study IV also identified that flexible contents within a comprehensive frame of content on early childhood development, can be considered as one of the core components of the intervention. The focus on child and family through a strengthening perspective was judged to be another core component. Multifaceted health promotion and prevention provided by qualified professionals from the child health care and preventive social services were further central components of the intervention, found in study IV.

Study IV further showed that the principal expected effects in the programme theory regards the child's health and wellbeing; parents' good health and responsive parenting practices; and families' use of welfare services and integration. The assumed mechanisms to these effects involve the establishment of a trustful relation between parents and professionals, the strengthening approach with focus on positive parenting practices, and instilling parents' trust in the institutions of CHC and preventive social services via the relation with the professionals. Embedding the home visiting intervention within the national CHC programme and the role of the network of welfare services was further considered to be of strategic importance.

Study III demonstrated that the families in the programme experience a diversity of situations that may negatively affect their health and lead to health inequities. These situations were related to insecure work and financial conditions, unstable and poor living conditions, and social isolation. Families also experience barriers to accessing services. Living in a segregated community was understood to exert a general negative influence. The event of the Covid-19 pandemic was observed to have added negative influence over the families in multiple ways.

In study IV, decreasing health inequities, was identified as the overarching aim in the programme theory. The intervention was considered to have the capacity to create better conditions towards this aim. At the same time, large influence of structural determinants on health inequities were recognized, and the intervention was described as one part of a larger systemic effort that needs to be in place.

6.2 THE INTERVENTION AND EARLY CHILDHOOD DEVELOPMENT

The studies indicate that Rinkeby's home visiting programme offers contents and strategies that are also described as central in the five components of the Nurturing care framework:

Good health; Adequate nutrition; Responsive caregiving; Opportunities for early learning; and Security and safety (22) (described in section 2.3.1). The content of the home visits in Rinkeby regards the child, family and influences and support in the external context. These categories can also be identified in the TEAM-ECD framework, within the individual and family spheres, as well as the residential and relational communities. They are thus centrally positioned in this framework of social determinants of child health and development (2) (described in 2.1.3). The Rinkeby programme can also be considered to be an example of a Family support and strengthening package, which is one of the packages of interventions recommended in the Nurturing care framework (22).

The intervention spans across health promotion and prevention, early detection of adversities, provision of psychosocial support, and referrals to additional resources. It may be understood as a complex intervention, containing several elements identified as challenging to professionals in the home visiting literature (51, 79, 80, 163). Considering that the Rinkeby intervention has adopted a responsive approach, tailored to families' needs, rather than a manual-based approach (80), the complexity of the intervention is directly related to the skills of the highly qualified and often experienced team of professionals.

The intervention's core components identified in study IV, correspond to a large degree to the components related to successful home visiting programmes, found by a recent systematic review (105). These included the use of highly qualified nurses; continuity of the same professionals to the family; regular supervision; and families' access to multidisciplinary support. The systematic review further recommended that home visiting should consist of approximately 25 visits up to the child's age of two years. Although the Rinkeby programme only contains six visits over 18 months, it is embedded in the universal CHC programme where the children are also attended by the same CHC nurse for five years. The review further identified that the successful home visiting programmes contained content on maternal and child health; child development and parenting skills; child safety; use of social and community services; as well as a focus on establishing a positive alliance between parents and staff (105), all of which have been found in the Rinkeby programme. It may therefore be suggested that the Rinkeby home visiting programme is an intervention with potential to promote positive effects on parents and children.

6.3 CAPACITY TO PROMOTE HEALTH EQUITY

6.3.1 Acting on the mechanisms of health inequities in early childhood

The findings of the studies of this doctoral thesis indicated that the Rinkeby home visiting programme may be considered to be of a complex nature that fits well into the international recommendations for ECD interventions. It is also understood to create better conditions for health equity. Some additional perspectives on the Rinkeby programme may be explored by assessing the findings of the studies, in light of the mechanisms leading to child health inequities, and the corresponding policy entry points, in the framework by Pearce et al. (5), presented in section 2.1.4 of this thesis.

The social stratification process which corresponds to the first mechanism in the framework, may be targeted by structural systems policies, which is understood to be outside of the scope of the Rinkeby home visiting programme. However, Pearce et al. points to the Swedish universal welfare policies as an example of promoting more equitable income distribution and poverty reduction, and thus impacting the social stratification. This positive influence of Swedish macro-policies should be acknowledged, nevertheless, regarding the Rinkeby families' use of welfare services, the findings in study III also uncovered considerable barriers for families to access these resources. These barriers are also perceptible in the reports on child poverty and child health discussed in the background section of the thesis (116, 118, 121).

The mechanisms in the framework, on which the Rinkeby home visiting intervention would be most discernible, relate to the differential exposure to risk factors for ill health, and differential vulnerability due to multiple interacting risk factors. Here, the intervention provides ECD contents in accordance with the child's developmental periods, it focuses on the strengthening of responsive parenting skills, and it works with parents on topics such as nutrition, play and safety. These aspects are believed to counteract the larger burden of risk factors for ill health. The programme's referral of families to additional healthcare services is a further important aspect. The complex range of contents and strategies in the intervention indicates a capacity to act on families' exposure to multiple interacting risk factors. The professionals' additional attention to potential adversities and extra needs, and the parental advisors' competence in offering psychosocial support, are further aspects that may strengthen the intervention's influence on these mechanisms.

The following mechanism in the pathways to childhood health inequities, regards the differential consequences of childhood ill-health, for example due to less access to health care. The home visiting strategies of information and referral to relevant societal resources can be seen to directly act on this mechanism. Nevertheless, as discussed in studies I and IV, the effectiveness of referrals ultimately depends on the availability and accessibility of additional CHC services to the families.

6.3.2 Targeted, universal or Proportionate Universalism in home visiting?

With consideration to the large diversity of home visiting programme aims, structures and strategies, it is challenging to perform comparisons with regards to their functioning and effectiveness. Few home visiting programmes also have a pronounced intention of decreasing health inequities (8, 9). It is, nevertheless, valuable to reflect on the principles of Proportionate Universalism as found in the Rinkeby home visiting programme, in relation to the larger field of home visiting.

A division in this field is often made between the targeted programmes, mainly in the United States, and the universal ones, common in the United Kingdom and other Northern European countries (51). While the Swedish national CHC programme offers 1-2 universal home visits, the Rinkeby programme can be understood to represent a Proportionate Universalist approach

within this structure. Universal and targeted contents and support are offered to families in accordance to needs. The intervention provides extra support to a targeted socioeconomically disadvantaged area, while it is embedded in the universal national CHC programme and the parenting support resources offered by the preventive social services. Additionally, the intervention acts on families' access to the universal welfare system.

The aim of exclusively targeted home visiting is only to reach those families at highest risk of disadvantage and adversity. An argument put forward in favour of this approach is that universal home visiting is insufficient for those with greater needs and the highest risk groups are more likely to slip through the net of universal home visiting (164). This has been countered by several arguments. The perceived disadvantage of targeting is that screening will not be able to detect all families with needs of home visiting services, while it may inflict stigma on those families who are screened into a risk group (51, 87, 164). Also considering that risk is not a static concept, a one-off screening is argued to be of little use in detecting families who might come to need the support further on (164). It has been pointed out as well, that risk factors often act poorly in predicting actual outcomes (164). Narrow scope of screening and subsequent programmes targeted to specific risk groups, has also been argued to lead to exclusion of families who belong other risk groups (100). Alternatively, the targeted content does not correspond to the broader needs of families, which in turn leads to high drop-out rates (106).

Elements of screening can also be found in the universal home visiting, when the public health nurse, during the course of service provision, determines which families may need a higher dose or intensity of support (51, 87, 164). This screening done by the nurse is perceived to be more holistic and cover aspects both of risk and need (87).

The home visiting programme in Rinkeby has adopted what may be seen as a middle way. Screening is applied on a geographical area level rather than among individual families. While all families living in the socioeconomically disadvantaged area are offered to participate, the professionals will also continuously perform what can be seen as a screening, during the visits, in order to identify risks and needs and offer additional support. This approach may be understood to minimize stigmatization while also identifying those with higher needs. The positive assessments given in interviews with parents (138, 139, 165) and high participation and retention rates in the programme, seem to indicate that this is a favourable strategy that covers the needs of the families.

From a health equity perspective, the argument would be that only targeted interventions do not have the capacity to shift the gradient, and the most effective approach is thus to target within universalism (42, 51). However, while this seems to make sense also for home visiting interventions, it is a challenge to present clear evidence to this end. The Rinkeby home visiting programme has so far detected modest indications of effects (166). Another example is the adoption of the targeted Nurse Family Partnership programme into the British universal health visiting frame, which did not generate the positive results previously measured in the United States (167). There may be many possible reasons for these findings. A relevant one

to mention is the limitations of traditional evaluation methods, such as randomized controlled trials, to detect and measure effects of complex interventions (also discussed in sections 2.3.2 and 2.4.3 of this thesis). According to some authors, health inequities need to be regarded as complex systems, and therefore systems theory would be the most appropriate to use when developing tools for research on interventions (168). To develop new relevant and feasible methods for evaluation of health inequity interventions, and thus broaden the spectrum of available research tools, would be a valuable contribution to the future of this field.

6.4 RINKEBY, STRUCTURAL DETERMINANTS AND HEALTH INEQUITIES

Throughout the studies of this doctoral thesis, different theoretical frameworks and concepts have been applied. They have regarded the creation and maintenance of health inequities, as well as how to reduce them. A prominent aspect which has become apparent, mainly in studies III and IV, is the considerable influence of the structural determinants on health and health inequities. Study III shows the potentially detrimental health effects of poor and crowded living conditions, unstable housing and employment conditions, and the stress and worry caused by insecurity around these issues. In addition, it highlights the experience of living in a segregated community as a negative force in the direction of health inequities. Study IV concludes that, unless there are actions on the macro-political level to decrease the negative impact of structural determinants on the families' lives, the capacity of the home visiting programme to positively affect health inequities is limited.

The findings of the studies of this thesis are supported by the research into health and place, that show how the health situation of a geographical location is a result of complex interactions between the ecosystem of its inhabitants, structures and systems (169). There are observed strong connections between economic, political and social conditions on national levels, and the health of people and the places where they live (169). This type of complex interactions were observed in the community of Rinkeby in the diverse pathways of study III.

It seems apparent that the complexity of the workings of the social determinants of health in a community such as Rinkeby, also require complex interventions on multiple levels of the social determinants of health. However, as has been discussed throughout this thesis, to develop such interventions in practice is a challenge, and as further pointed out by Graham already in 2004, "It takes time for the effects of policies to be manifested in better health in poorer groups, and in wider reductions in health gaps and gradients, by which point other factors will have intervened to alter the scale and direction of change". (42, p.127).

This does not mean however, that an initiative such as the Rinkeby home visiting programme, simply should refrain from even attempting to reduce health inequities. The studies in this doctoral thesis point to some important contributions towards health equity realized in the programme, that reach beyond the strengthening of responsive parenting and direct actions to promote the health of children and parents. A key aspect, in the findings of study IV, seems to be the embeddedness of the intervention into the universal service provision of the CHC and preventive social services, as well as the subsequent lowering of thresholds into further

support from social services and health care. Additionally, the conscious strive to support parents trust in, access to, and use of welfare services, seem highly important in the light of the concept of Proportionate Universalism.

Although a deeper analysis of the national political-economical perspective on health inequities and the implementation of policies to this end, lies outside the scope of this thesis, a few observations can be made. The conclusions made by the Swedish Commission on Equity in Health and the proposed seven central areas for action, involving a broad spectrum of sectors and levels of the welfare institutions (113, 114), provide a fundamental base for creating conditions for health equity within the population. The inclusion of perspectives of the social determinants of health, health equity and Proportionate Universalism in the recent policy declarations of the CHC (141) and preventive social services (134) are positive signals. The recent years' allocation of considerable funding by the Swedish government to initiatives aimed at providing good and equitable health from early childhood, with special focus on socioeconomic vulnerability (128, 132), is also evidence of concrete steps on macro-level to reduce health inequities. This indicates a favourable context for further development of initiatives such as the Rinkeby home visiting programme.

6.5 METHODOLOGICAL CONSIDERATIONS

The studies in this doctoral thesis were carried out through the use of qualitative research methods, with data collected from documentations, semi-structured interviews and nonparticipant observations. The following section will develop reflections on the strengths and limitations of this research.

When the studies of this theses were initiated, the CHC nurses' and parental advisors' documentation of home visits had already been produced. Some methodological concerns arose with regards to this data. Firstly, the author of this thesis needed to consider that, although the material covered approximately 500 home visits to the families of 98 children, it was produced by the professionals themselves, rather than by observations or recordings of home visits. It was also produced by a limited group of three parental advisors and three CHC nurses. The professionals, however, produced the material using existing templates and they were supported by the evaluation coordinator from Karolinska Institutet during this process. Still, the author of this thesis needed to maintain awareness of the "lenses" of the individual professionals in the texts throughout the analysis, especially by continuously comparing the content of the documents between the professionals. In study I, which relied on the CHC nurses' documentation as the only data source, comparison of the findings was also made with findings from questionnaires and in-depth interviews with parents, carried out during the same period as the production of documentation. For study II, additional data collection was carried out through semi-structured interviews with a larger group of professionals and observations of home visits, in order to strengthen the quality and trustworthiness of the study.

A strength of all studies was the engagement of all professionals from Rinkeby and key informants from the programme. The interviews for studies II and III included all seven parental advisors who had worked in the programme since 2013 and 16 of the 19 CHC nurses. The current professionals were also available for member checks and group discussions of the preliminary results on a number of occasions. Likewise, all 15 key informants that were invited for interviews accepted to participate. A possibly limiting factor in studies III and IV were that interviews had to be carried out via video-conference due to Covid-19 restrictions. However, the author of this thesis had previously met a large part of the informants in person and established an initial rapport, which probably facilitated the interview process on-line.

The most prominent limitation, however, is probably the lack of parents' perspectives in study III. The Covid-19 pandemic with the subsequent restrictions, as well as the high workload experienced by the CHC nurses during this period, made it unfeasible to interview parents despite several attempts of recruitment. Interviews with parents could probably have increased the number of pathways detected in the analysis, as well as deepen the understanding of situations and pathways. It would also be an important contribution towards the trustworthiness of the findings.

Without the counterbalance of parents' perspectives, several aspects had to be taken into consideration with regards to analysing the data of study III. Many of the interviewed professionals had long experiences of working in Rinkeby and other socioeconomically disadvantaged areas. They were therefore understood to have a very good insight into the different types of situations of lack of control experienced by families. However, they could be expected only to report on the situations they, as professionals, had observed, and not necessarily what the families themselves perceived. Efforts were made to recurrently probe for concrete descriptions and examples from the professionals during the interviews, in order to get as rich a material as possible from which to develop an analysis. Attention was also paid to including the full diversity of observations from the professionals in the analysis. Finally, care was taken in the presentation of results to emphasize that the findings were based only on the professionals' accounts and that the encountered situations and pathways were those that potentially affected some of the families, but not necessarily all.

Despite not interviewing parents for study III, the author of this thesis had had the opportunity to visit and conduct observations in three families' homes for study II. The author of this thesis had also conducted oral application of questionnaires with approximately five families from the programme, as part of another study, separate to this thesis. Thus, some degree of own contact with families had been experienced, albeit very limited, but it facilitated the data collection and analysis in study III to some extent.

The use of qualitative research methods was deemed suitable for the research questions of this thesis. The application of four different methods of analysis and varied use of external theories made it possible to reach a good methodological structure that was adjusted for the aims of each particular study. Still, the use of mixed-methods research could have been a

relevant choice for study IV, which might have strengthened its findings. It could have been done by including a survey to managers and professionals in all locations that are currently implementing the Rinkeby extended home visiting model. Quantitative data could have complemented the qualitative findings and deepened understanding of their transferability, thus improving the overall trustworthiness of the research.

Another methodological consideration should also be made regarding research in a multicultural setting. At the beginning of the doctoral project, it was decided not to frame it with theories of multicultural research or superdiversity, but rather to focus on the concepts from the research field of health inequity and ECD. However, important findings from the studies were connected to the families' experiences of handling different cultures. In hindsight, it might have been relevant to apply theories with a cultural approach in order to deepen the understanding of some of the findings.

The final consideration of this section regards the reflexivity of the author of this thesis. Coming into this doctoral project without a professional background in health care or social work, may have been a factor that limited my understanding of the research field. There might have been aspects that I did not capture or identify as important due to this lack of understanding. On the other hand, it also allowed me to assume an outsider perspective where I could comfortably ask a wide range of questions regarding work methods and their underlying assumptions. Sharing the research with my supervisors and research group also provided a diversity of perspectives from different professional disciplines, which was of great value for my understanding. My professional background within the civil society sector has given me the opportunity to come into contact with ECD and home visiting in different countries and contexts, such as Brazil, South Africa, Russia and the Baltic countries. These experiences have been of use both when investigating the Rinkeby home visiting programme, as well as considering the international research field of ECD. My personal experience of being a first-time mother as a migrant in a foreign country also gave me some understanding that I perceived as valuable to the studies.

7 CONCLUSIONS

This research project has increased knowledge on the design and implementation of the Rinkeby extended home visiting programme, a multisectoral intervention developed to promote health equity from early childhood in a socioeconomically disadvantaged setting in Sweden.

The qualified CHC nurses and parental advisors, collaborating in pairs, may be considered to provide a complex intervention with capacity to adjust contents and offer health promotion, prevention, psychosocial support and referrals according to each family's individual needs. The contents and work methods that have been developed and are implemented in the programme are in line with the international recommendations of the Nurturing care framework (3, 4, 22). They also correspond well to recognized components of effective early childhood home visiting (105).

The programme reflects the principles of Proportionate Universalism by offering extra time and resources in a setting with recognized higher needs. It is embedded in the CHC and preventive social services, and provides flexible content within this universal frame. Focus is on levelling the social gradient in health by ensuring children's good health and the strengthening of responsive parenting practice, at the same time as efforts are made to support families access to the network of universal welfare services. The intervention can be considered to act through some of the proposed policy entry points to reduce the influence of mechanisms that drive health inequities in early childhood (5).

The research project has also explored the limitations in the intervention's capacity to contribute towards health equity. These were mainly related to the negative influence of structural social determinants of health on the life situations of families. These findings are in agreement with research and reports on health inequities cited throughout this thesis. They recognize the complexity of the workings of the social determinants of health and the corresponding need for favourable macro-policies in combination with multisectoral efforts, which may include extended home visiting, with capacity to provide continuous support over the period of childhood.

8 POINTS OF PERSPECTIVE

The Rinkeby extended home visiting programme was developed on-site and is being implemented by pairs of CHC nurses and parental advisors. The intervention's way of working with first-time families in socioeconomically disadvantaged areas has gained attention and is now being implemented in many other areas of Stockholm and in other regions of the country. The studies in this thesis have aimed to clearly and systematically present the contents, work methods, core components and programme theory of this intervention, as well as promote deeper understanding into how the programme might act on the pathways leading to health inequities from early childhood. Hopefully these findings can be relevant and useful to home visiting professionals and managers at the CHC and preventive social services, as well as decisionmakers, in efforts to further develop and improve extended home visiting in the Swedish context.

A unique feature of the Rinkeby extended home visiting programme is the use of teams of CHC nurses and parental advisors from preventive social services, working in practical collaboration. Internationally, a large majority of home visiting programmes rely on one home visitor only, most often a nurse. The findings of the studies of this thesis indicate that the teams in Rinkeby have developed an intervention that covers a broad range of aspects related to healthy ECD and responsive parenting. The practical collaboration between the qualified professionals represents a central pillar of the intervention where the skills and experience of each professional contribute to the complexity of the contents. The Rinkeby model is an example of a home visiting approach which is flexible to arising family needs rather than prescriptive and manual based. This model could be considered when developing qualified home visiting interventions in other contexts, and to this end the studies of this thesis could serve as a contribution.

The findings rendered some insights into the challenges involved in parenting in a multicultural context such as Rinkeby. However, the families' own perspectives were largely missing from the studies. Further research with families could provide new and deeper understanding of the parents' own perceived needs and strengths. It could also investigate how concepts such as "responsive parenting" and "healthy childhood development" are understood by families from a diversity of cultures, living in a Swedish multicultural context. Information from such studies could possibly contribute to a more qualified programme theory and assessment of effects.

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