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Preventive Strategies in Pediatric Public Health: From Vaccination Programs to Childhood Obesity Prevention

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Abstract: Vaccinations against infectious diseases offer an effective preventive strategy to support pediatric public health. Despite recent challenges for vaccination programs, they continue their contribution to improving public health. In addition to the vaccinations, new preventive strategies targeting public health issues such as poverty and obesity in childhood can lead to the reduction of the spread of infectious and non-transmissible diseases in later life. Preventive strategies such as setting up daycare centers, decreasing the number of children per woman, and increasing paid parental leave could prevent childhood obesity and its complications, leading to substantial savings for society. To mitigate pediatric public health problems, new preventive strategies to reduce infections and diseases in children must be developed. The hygiene hypothesis and the developmental origins of health and disease provide concordant concepts of the early-life strategies needed to be developed. Various health initiatives are interlinked and can be seen as parts of a continuum from the reduction in infections to the prevention of neurological diseases such as ADHD, autism, and non-communicable diseases including childhood leukemia. Given this complex and encompassing range of preventive strategies that can impact pediatric public health, the topic is wide open for discussion and debate. In summary, effective prevention by vaccines can control the adverse consequences of HPV and provide benefits through herd immunity against all sexually transmitted infections in men and women. The off-target benefits provided through increased herd immunity have always decreased the economic burden of disease caused by the targeted pathogen.

Keywords: vaccination, childhood obesity, preventive strategies, public health.

1. Introduction to Pediatric Public Health

Public health for children and adolescents represents an area where healthcare workers and researchers attempt to implement preventive strategies. It may seem clear that the first stage to ensure public health improvements

regarding children is to stress the potential value and important features of the state of a child. Unfortunately, growing interest in the risk of non-communicable diseases, including obesity and obesity-related comorbidities, has led to the scientific and public community prioritizing particular areas of pediatric public health. The aim of this introductory section is to suggest the necessity to create novel strategies in the field of preventive pediatric healthcare. A definition of a child is provided. This paper aims to discuss vaccination programs and preventive behavioral strategies for childhood obesity, focusing especially on early life preventive measures. It will be discussed that the knowledge regarding optimal preventive strategies must include the state of a child. (Jones et al.2020)

Public health constitutes a part of healthcare that deals with the protection and improvement of the health status of individuals, communities, and societies. Disease prevention, health promotion, and treatment of diseases are the main obligations and actions in public health. In modern pediatrics, public health appears in the context of preventive strategies. Preventive healthcare means the care that deals with the prevention of a disease or condition or its consequences, rather than treatment. Consequently, prevention might concern primary prevention, that is, preventing diseases from occurring at all; secondary prevention, that is, catching and treating diseases in their early stages to prevent any problems from becoming worse or recurring; or tertiary prevention, that is, reducing the limitations and consequences of a disease. (Haque et al.2020)

In line with the importance of public health, based on intent and attention, it can further be divided into clinical preventive services, aimed at prevention in individual patients based on the unique situation of a patient, and community preventive services, aimed at prevention in the entire population, based on the community's risk factor profile. Preventive medicine has a key role within a healthcare system and can have a much greater impact on chronic diseases than in the past. Emerging preventive protocols encourage the involvement of multiple stakeholders, including government, health systems, schools and workplaces, commercial and voluntary organizations, social care, transport systems, the criminal justice system, local environments, communities, and individuals, to make collaborative efforts. In such an innovative approach, prevention strategies might have a different impact and be more effective. Recalling the definition of health as a state of complete physical, psychological, and social well-being, discussants at a conference pointed to the necessity to disclose the implicit prescription that our generation will provide the right level of care and maintenance to our children so that they will also have that right level of care provision in every following generation. It was also underlined that health must be maintained and strengthened nationally and globally for the benefit of children while the attack vector across a wide range of determinants of health can promote children's well-being. (Lee and Yoon2021)

1.1. Definition and Scope of Pediatric Public Health

Pediatric Public Health (PPH) has represented the public health protagonist in pediatrics. Pediatricians have long been informing parents about the importance of immunization, breastfeeding, nutrition, physical activity, the perils of cigarette smoke in the home or car, bullying, and internet safety for children. Nevertheless, the importance of prevention and health promotion was never recognized as a specific field of pediatrics or pediatric public health, distinct from the general interest in a child's healthy growth and development. The conceptualization of Pediatric Public Health has been complicated by two issues. First, "health and wellbeing" are multifaceted, comprising not only physical health and development, including accidents and injury, but also emotional and social health. Second, more than half of premature deaths in adults have their antecedents in early life, which means that early child development has a sustained influence on adult health. The field seeks to understand, model, estimate, measure, and determine the various health outcomes, one of which is genetic. (Olusanya et al.2021)(Clayton et al.2021)

The pediatric population, therefore, is very diverse in terms of physical health, emotional health, education, home environment, and their family's position in society, as well as the cultural, religious, and governmental environment in a child's world. The domain of pediatric public health is health. It encompasses the physical, social, and mental (or emotional) components of wellbeing. 'Health', in the main, can be measured, whereas wellbeing, which is subjective, does not readily submit to measurement. Pediatric Public Health aims to

establish the extent or prevalence of any or all conditions or diseases. The expressions, determinants, or factors that operate before birth or shortly after birth, for which the antecedents are in the prenatal environment or events associated with the perinatal period, have been the subject of most investigation, known as 'Developmental Origins of Health and Disease' studies. Continuing determinants of health are those events or exposures that occur during childhood and adolescence. For a long period of time, dependent on the age cut-off point, demographic factors alongside social and economic factors can have a major impact on subsequent health. Consequently, the role of the pediatrician, as a healthcare provider to children, is to take and interpret the birth history and to commission a child health assessment, working toward modifying the environmental or other determinants of health. In essence, the pediatrician has to work in partnership with the child and family in preventing disease, health conditions, complaints, or presenting clinical syndromes. This means having some knowledge of and skill in population sciences, including specialists such as statisticians, epidemiologists, and public health experts who are required to design, evaluate, and disseminate preventative or public health programs. The concepts identified as the basis of medical practice are based on health social determinants, health assets or resources, and equity in health, focusing on palliative care rather than curing people. In short, this subspecialty of pediatrics is closely linked to public health but extends beyond it to encompass the child's view of health, illness, and wellbeing.

1.2. Importance of Preventive Strategies in Pediatric Public Health

Preventive strategies play a crucial role in the pediatric public health domain. Early interventions and identification of specific risk factors allow the application of corrective measures that maintain and recover good health, thus avoiding and preventing adverse consequences in the long term. Early childhood is a sensitive period for development, and much of adult life and future health-illness conditions are rooted in the first years of life. This evidence highlights the importance of preventive strategies in pediatrics. In addition, addressing preventable health conditions is crucial, which strongly impacts public and economic health-related issues. (Yoshikawa et al.2020)

In the case of preventable diseases, vaccines are considered a very effective public health tool. They are able to show the direct and indirect effects of their actions, such as the adaptation of pathogens and the tightening of health disparities. Research also identified a decrease in morbidity and mortality for a number of infectious diseases transmitted by air and droplets. In recent years, health education interventions have also been integrated into public health interventions. These try to promote active and informed participation of the population facing health problems. They aim to acquire healthy behaviors and to implement health-promoting and empowerment programs that contribute to the welfare of people and the community. However, in some pediatric programs that address the characteristics and needs of the age group, there are still no preventive interventions implemented at the community level for the barriers they face. It is important that individuals have confidence in interventions and link preventive interventions to access to spaces where children and families go to request pediatric care tailored to the needs of pediatric patients. It is necessary to ensure preventive interventions focused on the care settings that are easily accessible and widespread in the pediatric population.

2. Vaccination Programs in Pediatric Public Health

Vaccination programs comprise the cornerstone of public initiatives undertaken in the field of pediatric public health. In fact, the availability of vaccines for children constitutes one of the landmark achievements of public health. Vaccination eradicated smallpox and polio type 2, and it has made great progress in public health with the reduction of human papillomavirus infection, with significant reductions in cervical anomalies and a notable decrease in cases of anogenital warts. The policies of vaccines are also included in the global strategies to combat infectious diseases. Since 1999, there has been a prevention program for measles, and since the 1960s, all of the American states have applied vaccination schedules against diphtheria, poliomyelitis, measles, mumps, and rubella in the framework of official strategies. At the same time, maintaining appropriate vaccination coverage rates is essential to guarantee the health of the community, often needed to ensure herd immunity. The public in developed countries sometimes view infectious diseases as an anachronism, but the diseases of the past reappear from time to time, either through imported cases or due to an anti-vaccine movement that leads to

decreased immunization rates, and several others due to unreliable or incorrect information that circulates on social networks about the risks of vaccination. Even if highly effective vaccines are relatively cheap, countless factors such as limited access to care, lack of knowledge, fear of adverse events, underlying conditions, allergies, and false beliefs about the vaccine cause obstacles for patients to seek vaccination, generating a kind of drift among the population to undertake preventive strategies. In this regard, advocacy and patient education can keep vaccination rates as high as possible, thereby protecting the community and safeguarding public health. Guiding the public to trusted information that is subject to evidence-based recommendations is an effort that every healthcare professional must make, especially in collaborating institutions. If we compare two countries with effective and unavailable vaccination programs, we can observe the differences in the burden of numerous infectious diseases. This shows that vaccination coverage is effective and necessary to prevent infectious diseases. (Ahonkhai et al.2022)

2.1. Overview of Vaccines and Immunization

Vaccination is considered the most effective tool for preventing disease and is a primary resource in the health system. Different vaccines target and protect children differently. The success of a vaccine depends on various factors, including the disease it targets, characteristics of the pathogen, the intended population, and the type of protective immune response required. Vaccines containing inactivated or subunit components of the disease cause microorganisms to be safe and develop an impression of the immune system, giving them a direct response to infection. Each vaccine benefits from the direct response of the recipient. Without considering the role of vaccines in providing individual protection to vaccinated people, maintaining and improving the level of vaccination coverage in a country is also important for protecting unvaccinated children. Disease eradication and epidemic prevention are among the many goals that are often sought by mass immunization programs. Vaccination programs may be initiated in some countries if the population as a whole and key groups have high levels of vaccination coverage. Vaccines are also tools of foreign policy in some countries and are donated to other countries because in these cases vaccines can be used in the process of increasing political power and establishing bilateral or multilateral relations. Increasing vaccination coverage in a country is part of the roadmap to achieving the goal of strengthening and supporting national immunization programs and ending the need for financial investment in vaccines. Advances in immunization technology have made vaccines more effective, safer, and cheaper and offer a stronger immune response to vaccination. As a result, vaccines have become an economic investment. Most vaccines are effective in reducing morbidity and mortality. (Wagner & Weinberger, 2020)

2.2. Key Vaccines in Childhood Immunization Schedule

Pediatric vaccination programs include a series of compulsory and recommended vaccines at different ages. Vaccines included in the childhood immunization schedule of different countries are based on the prevalence, incidence, and severity of childhood diseases in the respective country. These may include vaccines against tuberculosis, hepatitis B, diphtheria, tetanus, whooping cough, polio, Haemophilus influenzae type b, pneumonia, measles, mumps, rubella, chickenpox, hepatitis A, rotavirus, meningococcal meningitis, and human papillomavirus. Some of the childhood diseases can be prevented by vaccination, and management of malnutrition and other diseases includes measles, diphtheria, pertussis, poliomyelitis, hepatitis A, hepatitis B, Hib, avian influenza, and pharyngeal diphtheria. Many children are also treated with booster doses. The childhood vaccines are effective and save many children's lives, providing protection against potential complications that may lead to death as well as disabilities. It has also been shown that vaccines provide long-lasting immunity; the timeliness of the vaccines given during the recommended age range is an important factor for childhood immunization. The childhood vaccines have been discussed as 100% safe and effective. However, the rarely occurring side effects are discussed to be reversible or able to be cured. The outcomes of the non-vaccination of children are either that the child is not prevented from the disease or has to be treated for complications. Many parents may have concerns about the safety or necessity of vaccinations, and in some cases, they may be confronted with conflicting or confusing information. In some developed countries, parents may delay or refuse vaccination for their children due to fear of adverse events associated with vaccination. Healthcare providers can facilitate informed decisions by addressing and, where necessary, investigating these

concerns with parents, as well as systematically communicating about the benefits and potential risks of vaccination.

3. Nutrition and Physical Activity in Childhood Obesity Prevention

Childhood obesity is now recognized as a major public health threat in all industrialized countries due to its increasing prevalence over the last two decades, with serious current and predicted individual and public health outcomes. To prevent the appearance of diet-related chronic diseases in adults, including obesity, it is important to adopt preventive measures during childhood. Two behaviors are subjects of major concern for obesity prevention: diet and physical activity. Fruits, vegetables, and whole grains have substantial public health importance because they protect against major causes of illness and death. Thus, children should eat a diet containing half fruits and vegetables, and the remaining food should be chosen to have the proper content of whole grains in this food group. The Dietary Reference Intake of fiber for children is 14 g/1000 kcal for boys and girls aged 1-3 years, respectively, i.e., for 19 g/day of fiber for boys aged 1-3 years and 17 g/day for girls aged 1-3 years, respectively. (Dietz & Baur, 2022)

Regular physical activity is important for growth, development, maintaining a healthy weight, and is likely to reduce childhood obesity and obesity-related health problems. Obesity in childhood can also be reduced through increased prevalence of physical activity such as walking and use of public transportation, increased physical activity programs, and changes in neighborhood environments to encourage walking and participation in sports and active leisure activities. Families, in particular parents, are key players in influencing children and creating an environment that allows for the basics of healthy eating and physical activity. Schools with qualified teachers and communities can provide a supportive environment for children as well by using effective programs and policies. It is assumed that children will follow the model of their parents, and so educating parents who, in turn, help make decisions about their children's diets may be one pathway to change. Parental, individual, and environmental factors may also act independently to affect food choice. The primary purpose of nutrition education is to influence these factors. Strategies for effective nutrition education can be developed, therefore, at three levels: informational, socio-psychological, and environmental. These strategies can be used in combination with one another and linked with strategies for improving physical activity in order to produce a synergy in the areas of both nutrition and physical activity. It is important to seek a more homogeneous definition of the most important aspects, although it is generally accepted that the diet determines not only the level of energy intake but also affects activity level.

3.1. Role of Nutrition in Preventing Childhood Obesity

Proper diet is thought to account for 25 percent of obesity etiology, but the strongest link between nutrition and obesity is mediated through excessive calorie intake which, over time, leads to weight gain. Children consuming a diet that is high in nutrient-poor foods like sugar-sweetened beverages and low in nutrient-rich foods such as fruits, vegetables, and whole grains and are comparatively inactive will eventually have chronic health problems. Nutrition and obesity are also correlated as a result of poor nutrition. For instance, adults who are obese don't just tend to have less healthful diets (more sodium and less fruit/vegetables), but they also skip breakfast, which is one of the common calorie-reasoned strategies for obesity control. Nutrition and obesity are also associated in light of the negative effects of television watching on increased energy intake in children for food and beverage products of poor nutritional value. Considering the strength of the relationship between excessive weight and early health, any interventions drafted to control or reverse weight gain need to be applied during the formative years. The cornerstone of pediatric and adolescent obesity prevention and treatment programs are early interventions that motivate and educate families to develop healthier behaviors and utilize non-aggressive techniques to establish appropriate thresholds. Any actionable strategies to educate families to practice preventive feeding behaviors include teaching them about healthy eating guidelines that are abundant in nutritious foods. Because of the limited fruits and vegetables intake and high sugar-sweetened beverage consumption, a modification in nutrition is a strategy with potential for weight control in children. Kids consume an average of 200 more calories a day when measured throughout the week because of added sugar. To improve diet patterns, health professionals need to make positive recommendations that educate families on

nutrition. These recommendations include increasing the intake of vegetables and other whole fruits compared to simple, easily chewed fruit juices and dried fruits that can be consumed in larger amounts compared to the whole fruit with the same calorie, fiber, carbohydrates, and nutrient content. In addition, parents need to be encouraged to decrease children's sugar-sweetened beverage consumption in order to improve hydration with water or milk flavored with natural sweeteners that do not contribute to increased tooth decay. The model for altering food and beverage choices is a simple model that classifies the suitability of food in a playful fashion that is easy for families to adopt. The consumption of fruits and vegetables, brown rice, 100% fruit juice, and cereal made from whole grains is strongly encouraged. Animations might aid in spreading the word of mouth through children if it were put in a marketing campaign in which a character animated cartoon presented the message in a manner that children and adults can understand. A picture can influence a child in the same way as an adult image. Hence food marketing and food retail environments should be employed by health practitioners to foster the development of media-savvy kids. Measures proposed to parents and caregivers for bringing up healthy kids without media intervention. Inform child care providers to avoid canned fruits and applesauce and serve whole, cut fruit without syrup, while older children at school need to be prepared with fresh, bite-sized fruits or small cups of canned fruits. A serving or two more a day of vegetables is recommended as per age-appropriate portion. This must be easily accepted by children and parents.

3.2. Importance of Physical Activity in Childhood Health

There is overwhelming evidence of the importance of regular physical activity in fostering good physical and psychological health in childhood and later life, as well as slowing the onset of non-communicable diseases in adulthood. Several professional bodies advise that children and young people aged 5–18 should engage in at least 60 minutes of moderate to vigorous physical activity every day. Most of this should be aerobic and activities should offer bone and muscle-strengthening benefits. (Chaput et al.2020)

Staff, parents, family members, and wider community members should use their strong relationships with children, as well as their individual and collective knowledge and experiences, to help tailor young people’s everyday physical activity opportunities to their individual preferences and needs. The advantages of being active in childhood are numerous, encompassing not only physical health but also children’s mental health, cognitive function, and academic achievement. An active early life appears to provide benefits for the future. For example, tracking data suggest that an active adolescent is more likely to grow into an active adult, and that is what we should aim for if a physically active lifestyle is to become normal in society. In contrast, today’s sedentary environment tends to promote sedentary behaviors, such as time spent being inactive, sitting, watching TV, and playing computer games or using computers and gadgets. Some sedentary behaviors have been found to further displace remaining physical activity, and numerous negative physical, nutritional, and mental health outcomes are associated with various sedentary behaviors.

4. Community Engagement and Policy Advocacy

Community engagement is vital for achieving the goal of better health for more children. Active engagement of community members, particularly parents and grandparents, in advocacy for better school nutrition has a long history of success. Efforts in the 1960s resulted in the establishment of one of the country’s first school meal programs to honor the husband of a recently deceased teacher and to educate formerly stay-at-home individuals in a “modern kitchen.” The organic agriculture movement in the late 1990s also played an important role in improving school food programs. Smaller-scale community engagement in towns, school boards, or individual schools to improve meal programs is not new. Research that specifically evaluates the outcomes, processes, and best practices of such activities, however, is very limited.

Policies can support or hinder efforts to promote children’s health. One case study that illustrates the importance of aligning policy with health goals involved recycling in schools. With concern about the obesity epidemic on the rise, many experts recommend increasing the amount of physical activity that children engage in. Unfortunately, a policy that still exists in many local jurisdictions prohibits children from spilling out onto the sidewalk and into the street on a weekly basis to take perfectly good bicycles, roller skates, and skateboards that parents drove them to school in to a “toxic waste facility” to be “properly disposed of.” Advocacy works to

garner the time, talent, and resources of decision-makers and the community in favor of a specific activity. To change policy, efforts like these need to be reframed beyond the delivery of a profile of a miserable little person to the right person at the right time in the right place. Instead, health researchers can investigate how best to deliver interventions and communicate about public health, in effect reframing their approach to communication as an intervention or area of research. How do we educate and transform people so that they can identify the core objectives of public education and then advocate effectively on a local basis for policies that support those objectives? Some research is beginning to investigate how we can begin to transform people so they can act with a level of consciousness different from what they have now. They could perhaps be transformed into citizens. Once they are transformed, there may be benefits to that, but the effort could be fruitless if we are not successful in achieving the transformation. The dividends to changing or transforming the level of conscious engagement, the viewpoint, or level of participation of individuals and communities have hitherto been buried under the assumption that there is no profit in greater citizen involvement. (Chaput et al.2020)

4.1. Engaging Families and Communities in Pediatric Public Health

A second major commentator concluded that involving and engaging families and communities is a common factor in many successful prevention programs. Overweight children are likely to have overweight parents and others in their family or household. Family involvement is critical to helping a child develop a healthy lifestyle. As with other pediatric health promotion activities, a widely accepted goal is for the child and their family to make changes that help them develop and maintain a healthy lifestyle on their own. Open and culturally sensitive dialogue that is relevant to the needs, desires, and resources of the intended audience can foster desired change. The value of word-of-mouth efforts, in which community insiders influence others in their network of relationships, should not be underestimated. (Barnes et al.2020)

Indeed, costly health campaigns are less effective in changing behavior than harnessing local networks and resources, such as those existing in communities or neighborhoods. Programs in neighborhoods that are developed by the local community have proved successful. Gaining the trust, partnership, and involvement of the families and communities, in accordance with universal public health, to foster these partnerships provides a context in which opportunities for healthy eating and regular physical activity are both available and possible, is the key to successful prevention interventions. Public health efforts to prevent childhood obesity or to change behavior in other areas that also involve in some way the family and community will be stronger and more successful if empathy and social support are fostered.

4.2. Policy Advocacy for Child Health and Well-being

Policy leads to legislation that, in turn, creates a supportive framework for initiatives addressing children's health concerns. This supportive policy tool framework can ensure funding is allocated to lead pediatric health initiatives, and resources can be made available to address challenges children and vulnerable populations face in terms of access to care and services. Current policies have the potential to influence the content and focus of our pediatric health initiatives. The goal of policy advocacy regarding child, youth, and teen health issues at a public health level is to push comprehensive policy that will integrate health issues into the broader context of policy implications for children and families, especially given that there are still so few policies that directly target these populations. (Badawy & Radovic, 2020)

Examples of already existing policy that preventive child health legislation may affect, impact, or be affected by the pediatric health initiative have been summarized in an exhaustive manner above. The purpose of policy advocacy at this systemic level is threefold: to increase awareness of issues of program-specific relevance to programming sectors, to increase demand for action specific to the priority placed on the issues of relevance to the sector, to increase demand for action specific to the relevant policy-level sector, and to increase the resource support made available to the sector to address health measures within program planning and to initiate evaluation of systemic evaluation efforts. Advocacy efforts are a primary strategy utilized in discussions that move issues onto the political agenda. In recent years, upon review of a Cancer Advisory Committee's Report and ensuing action plan, separate working groups, internal to the Southern Alberta Pediatric Center, were struck to review and recommend strategies for specific programs and clinical intervention levels of our framework.

Similarly, provincial research resource mapping discussions are ongoing and it is clear that robust policy is a necessary factor in research infrastructure.

Efforts to build the case for action and to provide leadership from governmental perspectives and in inter-public agency and sectoral planning also continue within the Calgary Regional Health. It is essential that similar initiatives be undertaken internally and throughout this partnership on an ongoing basis. In addition to the policy and advocacy leadership on a child and youth health continuum, there is strategy-specific recognition of the need for further development of the working relationships in the broader new and first-time parent group "sector" within the Southern Alberta community. Collaboration in policy-making will broaden and strengthen the overarching power base to improve health outcomes and to expand research investigations. Respite and bench research may be equally important areas of exploration, as opportunities arise from this synergistic collaboration. Ongoing dialogue will ensure the "added value" of real-world program and clinical intervention priorities forming our policy development framework, and inform our interdisciplinary research directions. As noted, the identification of pediatric health research resource gaps and deficiencies in the Calgary Health Region have been formally recognized in the Clinical Research Framework Working Group.

5. Conclusion and Future Directions

In conclusion, we might think in our essay on preventive strategies in pediatric public health in four ways. First, we demonstrate a successful public health strategy in vaccination. We then joined two strategies that, although not presented as traditional by public health, demonstrate results by advancing knowledge. We were also consistent in positing new frontiers of public health, combining empirical evidence and theoretical discussion. This includes prevention strategies for overweight and obesity, another successful strategy to avoid the recurrence of Influenza A H1N1 in the country in 2011, but with substantial differences between them. Our strategies include changes in the eating habits of the population, encompassing what social marketing does with respect to this topic, and considering work on marketing restrictions in food conduct in Brazil with some influence from the results of the study. Finally, it was not just a demonstration of strategy in physical activity during childhood, but also prevention in relation to food and the involvement of the children of the PIM cohort. If there is no physical inactivity, tendencies toward obesity change, being the effect of another predictor of physical activity: a sedentary lifestyle. Preventing obesity also involves strategies that promote communication and advocacy, both for direct intervention (not just at the individual level, but also at the family level), expanding performance with broader community involvement in public health. Finally, as future prospects, new research aims to address the propositions of this essay. We should develop a national or international cohort of children. In general, it is necessary to develop more partnerships and dialogue between researchers, policymakers, and civil society. (, 2020)

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