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Poverty and Health Disparities for American Indian and Alaska Native Children: Current Knowledge and Future Prospects

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Abstract

This report explores the current state of knowledge regarding inequalities and their effect on American Indian and Alaska Native children, underscoring gaps in our current knowledge and the opportunities for early intervention to begin to address persistent challenges in young American Indian and Alaska Native children's development. This overview documents demographic, social, health, and health care disparities as they affect American Indian and Alaska Native children, the persistent cultural strengths that must form the basis for any conscientious intervention effort, and the exciting possibilities for early childhood interventions.

Keywords

poverty; health disparities; children; American Indian/Alaska Native

Introduction

Disparities in health have existed among American Indian and Alaska Native populations since the time of first contact 500 years ago,1 and they continue to occur across a broad spectrum of disease categories and for all ages.2 Historically, our understanding of health disparities within the American Indian and Alaska Native population as a whole has been limited because of the lack of adequate data; our understanding of the health disparities experienced by American Indian and Alaska Native children in particular has been especially so.3›4 The literature on American Indian and Alaska Native children's health is relatively small, oftentimes dated, and characterized by descriptive studies of small regional samples,4–6 partly because of difficulties in sampling the small, isolated, diverse, and culturally distinct groups that form the American Indian and Alaska Native population.7–9 The literature on American Indian and Alaska Native children's health has, however, shown some promising advances with the appearance of several studies based on recent data from both national and tribally specific samples; we highlight here some of the emerging new directions for addressing the most persistent health disparities that affect American Indian and Alaska Native children.

We focus first on the challenges faced by American Indian and Alaska Native populations and children, highlighting demographic, social, health, and health care disparities. Second, we discuss the cultural strengths upon which American Indian and Alaska Native communities and children can draw in the face of such challenges, focusing on the role of

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extended family and child-rearing beliefs that can and should play an important role in intervention efforts.10 Third, we close by discussing the possibilities for early childhood intervention in light of both the challenges and the cultural strengths of American Indian and Alaska Native communities.

Challenges in American Indian and Alaska Native Children's Development

Demographic Challenges: Poverty, Education, and Employment

American Indian and Alaska Native people today represent roughly 1.5% of the total U.S. population.11 Relative to the general U.S. population, it is a young and growing population, with one-third of people younger than 18 years12 and fertility rates that exceed those of other groups.13 More than one-quarter of the American Indian and Alaska Native population is living in poverty, a rate that is more than double that of the general population and one that is even greater for certain tribal groups (e.g., approaching 40%).12 American Indian and Alaska Native children and families are even more likely to live in poverty.14 U.S. Census Bureau statistics reveal that 27% of American Indian and Alaska Native families with children live in poverty, whereas 32% of those with children younger than 5 years do—rates that are again more than double those of the general population and again are even higher in certain tribal communities (e.g., 66%).15,16 Discrepancies in education and employment are also found. Overall, there are fewer individuals within the American Indian and Alaska Native population who possess a high school diploma or GED (71% versus 80%) or a bachelor's degree (11.5% versus 24.4%).12 Such educational discrepancies appear early, with American Indian and Alaska Native children's math and reading skills falling progressively behind those of their white peers as early as kindergarten to fourth grade, as well as other challenges persisting throughout the school years, including higher dropout rates and grade retention.17 American Indian and Alaska Native people have lower labor force participation rates than those of the general population,12 whereas family unemployment rates range from 14.4% overall to as high as 35% in some reservation communities.15 The poverty and unemployment observed in American Indian and Alaska Native communities is related to broader economic development challenges in American Indian and Alaska Native communities, including geographic isolation and the availability of largely low-wage jobs.18

Social Challenges: Violence, Trauma, and Loss in American Indian and Alaska Native Communities

American Indian and Alaska Natives are especially likely to experience a range of violent and traumatic events involving serious injury or threat of injury to self or to witness such threat or injury to others.19 Of all races, they have the highest per-capita rate of violent victimization, whereas children between the ages of 12 and 19, in particular, are more likely than their non-Native peers to be the victims of both serious violent crime and simple assault.20 This situation has been associated with many other health disparities.21 In a national survey of more than 13,000 youth in grades 7–12 drawn from 200 reservation-based schools, a factor analysis of 30 risk behaviors was conducted. Among the seven risk factors derived from this analysis was one including violence and gang involvement. This factor was correlated with other risk behaviors, such as alcohol and drug use; suicide attempts; and vandalism, stealing, and truancy.22

American Indian and Alaska Native children experience and are exposed to other kinds of traumatic events in their communities. National injury mortality data show that American Indian and Alaska Native children are more likely to be killed in a motor vehicle accident, to be hit by a car, to commit suicide, or to drown than either their African American or white peers.23 The implication of these data is twofold. First, the children who are killed in these

types of situations represent only a small portion of those who experience these events, because many survive. It is thus likely that the number of American Indian and Alaska Native children surviving these sorts of events is high and that surviving traumatic events, such as car accidents, is a significant source of trauma in their lives. Indeed, national data indicate that injury risk behaviors among American Indian and Alaska Native adolescents are high and exceed those of their geographic peers,24 with significant percentages of adolescents reporting never wearing seat belts (44%), drinking and driving (37.9%), and riding with a driver who was drinking (21.8%). Second, American Indian and Alaska Native children witness high rates of trauma among their family and friends and thus are exposed to trauma not only as direct victims but also as bystanders. Because of the interconnectedness of reservation communities,25 the serious injury or traumatic loss of one individual often has an effect far beyond that individual's immediate family and friends.

Within this large network, American Indian and Alaska Native children are also exposed to repeated loss because of the extremely high rate of early, unexpected, and traumatic deaths due to injuries, accidents, suicide, homicide, and firearms—all of which exceed the U.S. all-races rate by at least two times—and due to alcoholism, which exceeds the U.S. all-races rate by seven times.26,27 Among adults, exposure to such events is high, ranging from 19% to 46%, depending on the type of event.28 The extent of traumatic loss among American Indian and Alaska Native children is not exactly known; however, data from two research studies provide some idea. In a small sample of 109 8th- to 11th-grade students in a Northern Plains reservation community, 28% reported the sudden loss of someone close or witnessing a death29; in a larger national sample,24 11% of adolescents reported knowing someone who had committed suicide.

Domestic violence exposure and child abuse and neglect are other sources of violence and trauma in American Indian and Alaska Native children's lives.30 Data from several studies reveal that American Indian and Alaska Native women are more likely than women from other ethnic groups to report a history of domestic violence victimization.31–35 The extent to which American Indian and Alaska Native children are exposed to domestic violence in their homes is not well documented, but research suggests that exposure is high relative to that of their non-Native peers.36–38 Better data are available for child abuse and neglect and indicate that 21.7 of 1000 American Indian and Alaska Native children were the victims of child maltreatment in 2002, compared with 20.2 of 1000 African American children and 10.7 of 1000 white children.39 American Indian and Alaska Native children from Alaska and South Dakota in particular evidenced the highest rates of maltreatment (99.9/1000 and 61.2/1000, respectively). On the basis of retrospective accounts of American Indian and Alaska Native adults, the true rate of child maltreatment is likely far greater.31,32,40,41 There are both immediate and long-term effects of child maltreatment within the American Indian and Alaska Native population, including higher rates of mental disorders, substance abuse, suicidal behavior, and behavioral and relationship problems among maltreated individuals.31,32,37,38,41–46

Physical Health Disparities in the American Indian and Alaska Native Population

Based on existing data, there can be little doubt that the American Indian and Alaska Native population as a whole is confronted with ongoing disparities in health.47–55 According to the Indian Health Service (IHS), the federal agency that provides medical care to roughly 1.6 million American Indian and Alaska Native people, the age-adjusted death rate for adults exceeds that of the general population by almost 40%, with deaths due to diabetes, chronic liver disease and cirrhosis, and accidents occurring at least three times the national rate, and deaths due to tuberculosis, pneumonia and influenza, suicide, homicide, and heart disease also exceeding those of the general population.27 Although studies of urban American Indian and Alaska Native health are limited,56 those that do exist suggest similar health-

related disparities, including higher rates of and deaths due to accidents, liver disease and cirrhosis, diabetes, alcohol problems, and tuberculosis compared to the general population from the same area.14,57

Across the developmental spectrum American Indian and Alaska Native children also experience physical health–related disparities relative to their non-Native peers. National Center for Health Statistics58 data document rates of inadequate prenatal care and post-neonatal death among American Indian and Alaska Native infants that were two to three times those of white infants and even higher, among rural American Indian and Alaska Native infants. IHS data27 showed a similar pattern, with an American Indian and Alaska Native postneonatal death rate roughly twice that of both the U.S. all-races and white rates (4.8 deaths per 1000 live births versus 2.7 and 2.2, respectively), and accounted for by the increased number of American Indian and Alaska Native deaths due to sudden infant death syndrome (1.8 versus 0.8 deaths/1000 live births), pneumonia and influenza (0.4 versus 0.1), accidents (0.4 versus 0.1), and homicide (0.2 versus 0.1). Fetal alcohol spectrum disorders are also greater among American Indian and Alaska Native children occurring in 1.7–10.6 per 1000 births,59 indicating as much as a fivefold difference compared with national rates.26,27,60

Health disparities become more apparent beyond infancy. American Indian and Alaska Native children's deaths between the ages of 1 and 4 years occur at nearly three times the rate of children in the general population (0.9 versus 0.35 per 1000 lives); with preventable deaths due to accidents (0.47 per 1000 children; 52% of all deaths) and homicide (0.065 per 1000 children; 8% of all deaths) being the leading causes of death, and exceeding the all-races rates by 3.3 and 2.2 times, respectively.26,27 The pattern of disparities for injury-related mortality is especially striking beyond early childhood.21,61,62 In a study of Native and non-Native youth in Canada, the overall all-cause relative risk (RR) for injury-related death among Native children was 4.6 times that of non-Native children aged 0–19 years, peaking between ages 0 and 4 for boys and girls and again between 10 and 14 for girls and 15 and 19 for boys. Though injury mortality rates were higher for Native children across all injury categories, they were largest for pedestrian injuries (RR =17.0), poisoning (RR =15.4), homicide by piercing (RR =15.4), and suicide by hanging (RR =13.5). Similar national data from the United States indicated that American Indian and Alaska Native youth had an overall two times greater injury-related death rate than the U.S. average. Relative to white youth, they experienced greater injury-related death in all injury categories and exceeded both black and white children for injury-related deaths due to motor vehicle accidents, pedestrian events, and suicide. These data highlighted the involvement of alcohol in all injury-related death among American Indian and Alaska Native youth.

Additional physical health disparities emerge for American Indian and Alaska Native children beginning in early childhood and continuing throughout development. Of particular note are childhood obesity and overweight and childhood dental caries.63,64 In one of the largest studies to assess childhood obesity among American Indian and Alaska Native children, 39% were defined as overweight or obese—defined as a body mass index (measured in kilograms per square meter of body surface area) above the 85th percentile.65 In national studies, American Indian and Alaska Native children are twice as likely to be overweight and three times as likely to be obese,64 with rates of both growing by 4% since the mid-1990s.66 The disparities for childhood dental caries are equally striking. According to recent IHS data, 79% of American Indian and Alaska Native preschool children had caries experience, whereas 68% had untreated dental decay—a prevalence of more than three times that of their non-Native peers.67

Mental Health Disparities in the American Indian and Alaska Native Population

Systematic epidemiological evidence of mental health problems among American Indian and Alaska Native adults has only recently become available.[8,51,54,68,69] In community samples from two tribal groups (Southwest [SW] and Northern Plains [NP]), the prevalence of nine psychiatric disorders was assessed among 3086 individuals between the ages of 15 and 54 years by using a culturally modified version of the interview used in the National Comorbidity Survey,[70] allowing for explicit comparisons with national rates. Among American Indian and Alaska Native women, the highest lifetime rates of disorder were posttraumatic stress disorder (SW, 22.5%; NP, 20.2%), alcohol dependence (SW, 8.7%; NP, 20.2%), and major depression (SW, 14.3%; NP, 10.3%). The highest lifetime rates of disorder for American Indian and Alaska Native men were alcohol dependence (SW, 31.1%; NP, 30.5%), posttraumatic stress disorder (SW, 12.8%; NP, 11.5%), and alcohol abuse (SW, 11.2%; NP, 12.8%). Compared with national data,[70] rates of posttraumatic stress disorder were significantly higher for men and women from both tribal backgrounds, ranging from two to three times the national rate. Alcohol dependence was also significantly higher among men (50% higher) and NP women (100% higher). Other data highlight the severity and impact of such mental health problems; death due to suicide among American Indian and Alaska Natives is 72% higher than that in the general population, whereas death due to chronic liver disease, cirrhosis, and other alcohol-related causes (e.g., accidents) is seven times the national rate.[27]

American Indian and Alaska Native youth also experience higher rates of mental health disorders relative to their peers.[71] One study assessed the 3-month prevalence rates of psychiatric disorders among children aged 9–13 years.[36] Overall, conduct and oppositional defiant disorder, anxiety disorders, and separation anxiety were the most common diagnoses, occurring at similar rates for American Indian and Alaska Native and white children from the same area, whereas substance use disorders were significantly more likely among the American Indian and Alaska Native children. In another study, higher rates for more disorders were found among older American Indian and Alaska Native children (aged 14–16 years) than the published rates of disorder for non-Native children of the same age.[72] Substance use disorders were the most common, with 18.3% of American Indian and Alaska Native children meeting criteria for either abuse or dependence within the last 6 months. Disruptive behavior disorders, anxiety disorders, mood disorders, and other substance use disorders were diagnosed in 13.8%, 5.5%, 4.6%, and 3.9% of children, respectively. In comparison, rates of attention deficit–hyperactivity disorder, substance abuse and dependence, and conduct and oppositional defiant disorder were elevated relative to published rates for non-Native children.

As with American Indian and Alaska Native adults, additional data highlight the effect and severity of the mental health problems occurring among youth. According to multiple sources,[61,62,73] the suicide rate is three to six times higher among American Indian and Alaska Native than among their non-Native peers and indeed represents one of the greatest health disparities faced by young American Indian and Alaska Natives.

Challenges in Intervention and Services

The physical and mental health disparities faced by American Indian and Alaska Native populations can in part be accounted for by the serious lack of funding for health care within the IHS system and by the numbers of American Indian and Alaska Native people not served by IHS who are without any other form of health insurance or benefit.[49,50,75] A U.S. Commission on Civil Rights report documented that the IHS is so severely underfunded that it spends just $1914 per patient per year compared with twice that amount ($3803) that is spent on a federal prisoner in a year.[76] Amazingly, this finding is little

departure from the state of health care more than a century ago. As Jones1 accounts, in 1890 the Commissioner of Indian Affairs calculated that based on government salaries paid to physicians in the Army, Navy, and Indian health, “the government valued people [at] $21.91 per soldier, $48.10 per sailor, and $1.25 per Indian” (p. 2128). The lack of funding is especially dire for mental health services. According to providers in 10 of the 12 IHS service areas, mental health was identified as the number-one health problem confronting American Indian and Alaska Native communities today; along with social problems, it was estimated to contribute to more than one-third of the demands for services.77 Despite such a demand, only 7% of an already limited IHS budget is allocated for mental health and substance abuse services.48 The effect of this underfunding on the availability of mental health services is dramatic; by one estimate there were only two psychiatrists and four psychologists per 100,000 people served by the IHS—one-seventh the number of psychiatrists and one-sixth the number of psychologists available to the general population.48

Given the critical shortfall in physical or mental health services available to the larger American Indian and Alaska Native population, it is unfortunately not surprising that services targeting the physical, social, or emotional needs of American Indian and Alaska Native children are even more severely limited.78,79 In our review of the literature, we found no published studies of interventions targeting young American Indian and Alaska Native children; for older American Indian and Alaska Native children, we found only a few —most of which focused on the *lack* of services for American Indian and Alaska Native children or were largely descriptive and provided few data on the effectiveness of the services.78,80–82 The dearth of literature does not mean that services are not being provided in American Indian and Alaska Native communities, but it does mean that little is known outside those specific communities about what works and for whom. The lack of such studies indicates a significant gap in the research literature and is a disservice to American Indian and Alaska Native children and communities that needs to be addressed.

Cultural Strengths Supporting American Indian and Alaska Native Children’s Development

American Indian and Alaska Native communities today live with a legacy of cultural trauma as a result of centuries of dispossession at the hands of the U.S. government and its policies and practices intentionally designed to break apart culture, communities, family, and identity.83–89 Despite this legacy and its arguable effects on life in American Indian and Alaska Native communities today, one need only hear a conversation in Towa between a Pueblo grandmother and her grandchild, visit a summer sheep camp among the Navajo, or attend a Lakota sundance to know that American Indian and Alaska Native culture has endured. Though there is great variability from one tribe to the next in terms of cultural values, beliefs, and practices,4,90 certain threads cut across. Here we highlight extended family networks and traditional parenting and child-rearing beliefs as but a few of the cultural strengths upon which American Indian and Alaska Native children can draw.

Extended Family

Extended family is the central organizing unit of many American Indian and Alaska Native cultures, emphasizing interdependence, reciprocity, and obligation to care for one another.91 Within this extended network of care, American Indian and Alaska Native children develop strong relationships and attachments with not only their immediate biological family, but also with aunts, uncles, cousins, and grandparents. Familial bonds often extend beyond blood relatives to include important others who may be adopted into a family. Therefore, it is common for American Indian and Alaska Native children to have several grandmothers and grandfathers, aunts and uncles, brothers and sisters, or cousins who, although not related

through blood or marriage, are nonetheless treated as if they were. This large extended network of blood and traditional relationship ties safeguards American Indian and Alaska Native children in their development by monitoring behavior and ensuring their integration within the larger family group.4 The close intergenerational relationships also provide opportunities for elder members of the family to pass on tribal stories, songs, and practices that convey values by which to live.92

Parenting and Child-rearing Beliefs

Across American Indian and Alaska Native cultures, children are regarded as gifts to be honored and cherished.4 Children and families' participation in ceremonies give life to this sentiment by celebrating milestones in development and providing children with a sense of belonging within the larger family and community. Examples include naming ceremonies in which a child is given a meaningful Indian name or celebrations to mark a child's first smile. 4 American Indian and Alaska Native cultures also foster children's autonomy and individuality through parenting practices that support children in making their own decisions and acting autonomously from a young age, and practices that promote learning through experience, listening, and observing the world around them and the behavior of others over explicit instruction.4,92,93,95 Emerging evidence suggests that the extent to which parents adhere to traditional tribal values is related to positive aspects of children's early development.96; furthermore, children's own identification with traditional culture appears to guard against mental health problems as they grow older.73

The Promise of Early Childhood Intervention for American Indian and Alaska Native Children

As we have argued elsewhere, the time to move beyond documenting health disparities for American Indian and Alaska Native communities to designing and implementing effective culturally informed intervention has long since arrived.10 American Indian and Alaska Native communities have been increasingly frustrated by research that serves simply to document problems that they have long known to exist. At the same time, they are reluctant to accept interventions derived from other's experiences that do not consider their unique social and cultural contexts. Building on the demonstrated success of many early childhood interventions97 and a commitment in American Indian and Alaska Native communities to prevention through work with young children, our team has been exploring options for such interventions in many contexts—most immediately in developing an approach to feeding and regulation in infancy,98 which we are now extending to the prevention of early childhood caries. In both cases, the goal is to build on the model developed by Olds,99 by targeting first-time mothers as they prepare for the transition to parenthood, encouraging and supporting healthy behavior for both themselves and their children. In other efforts we are exploring approaches to working with mothers to promote stimulating language environments for their infants and toddlers and to reduce alcohol use among women of childbearing age to prevent fetal alcohol spectrum disorders in reservation communities.

Many of the disparities experienced by American Indian and Alaska Native children highlighted above are, at a minimum, exacerbated by educational disparities and may in fact be causally related to the problems students experience in the educational system, especially insofar as they are driven by poor health literacy and health behavior. Accordingly, addressing American Indian and Alaska Native educational disparities has become an important priority as well—and we are addressing these issues directly through our American Indian and Alaska Native Head Start Research Center and related research.

Historically, educational institutions have not played a positive role in American Indian and Alaska Native communities; they have participate in the remove of American Indian and Alaska Native children from their families and communities,100 forbidden the use of American Indian and Alaska Native languages and cultural practices,101,102 and been a part of larger efforts to undermine tribal life ways and practices through the assimilation of children into the larger society.103–105 It is, therefore, not surprising that American Indian and Alaska Native children have often fared poorly in primary and secondary educational settings, with high absenteeism and dropout rates and low achievement and parental involvement.103,106

Nevertheless, school settings today can play an important role in fostering American Indian and Alaska Native children's development in culturally supportive ways.102 In light of the already described challenges faced by American Indian and Alaska Native children, educational institutions emerge as vehicles for intervention and support of cultural strengths. However, if this promise is to be realized, educational institutions and programming must take into account the needs of American Indian and Alaska Native communities as determined *by* American Indian and Alaska Native communities, as well as make meaningful changes to practices that continue to undermine American Indian and Alaska Native culture and children's development.101,103,107

The literature on American Indian and Alaska Native education suggests some goals for future programming that are based on observations of what has and has not worked from the perspective of the communities themselves. Foremost is the importance of working collaboratively with communities to determine the goals and activities of educational programming.100,101,103,104,107,108 Doing so often means incorporating traditional cultural teachings and language.102 Second, educational institutions must acknowledge that communities often identify different norms for what is considered desirable behavior and goals of education.100,109 In practice, doing so means reconsidering the use and validity of traditional means of assessing behavior and educational achievement (e.g., standardized norm-referenced tests),101,104,110–112 as well as extending involvement in the assessment process to parents and extended family.100,108,110 It also means acknowledging and accommodating differences in learning styles that American Indian and Alaska Native children may exhibit (e.g., silence and observation over verbal exchange).104 Finally, there must be support of the school infrastructure, with special attention to the availability of appropriate facilities and adequately trained and qualified school staff.107

Our work under the American Indian and Alaska Native Head Start Research Center was designed to respond to these problems in addressing the educational and health disparities for the youngest American Indian and Alaska Native children, by fostering high-quality research training for the next generation of Native investigators in early childhood intervention, and by stimulating new research on issues of key concern in American Indian and Alaska Native Head Start programs. Efforts to date have focused on ways to improve the program quality of American Indian and Alaska Native Head Starts and Early Head Starts but are now moving, under the direction of a steering committee of American Indian and Alaska Native Head Start program directors, to explore the implications of these service improvements for the experiences of children and families.

Although we certainly do not intend to minimize the challenges such research in early intervention confronts, both our community partners and we are excited by the prospects this work raises to better delineate the factors that contribute to the disparities we have documented here and to begin to address them systematically. Such work has the prospect of raising additional resources for American Indian and Alaska Native communities, but we are also aware of the severe constraints under which most American Indian and Alaska Native

communities continue to operate, so the focus is on developing sustainable interventions that fit the abilities of local service ecologies and labor forces. Until such time as we address the persistent inequalities in societal support for indigenous wellness, such compromises will, unfortunately, continue to be required. We would be loath to think that any success such efforts would excuse any of us from taking a closer look at our neglected obligations to the first people of this continent.

Conclusions

As this review of the literature makes clear, there remain enormous gaps in our knowledge of the predicaments confronted by American Indian and Alaska Native children, but we have long known enough to begin to act, in concert with indigenous communities, to begin to address the most glaring disparities. Both our community partners and we are placing bets on the value of early intervention, beginning prenatally with a mother's first pregnancy, and extending throughout the first years of life and beyond, as one of the surest ways to begin to address past centuries of neglect and improve the prospects of American Indian and Alaska Native children in this century.

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