

Understanding trends in shared reading to inform targeted literacy interventions in early childhood: A data snapshot

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Background

Evidence linking arts and health has been mounting, and the World Health Organization (WHO) compiled this evidence in a 2019 report.¹ The report explains how the arts combine health-promoting factors (e.g., cognitive stimulation) with an intrinsic desire to experience beauty or creativity. Literature is one artistic medium that can support health and well-being. For example, reading a good book evokes empathy, reduces stress, and makes the brain work hard to understand language, recall information, and imagine written descriptions. Readers may also encounter and engage with themes of health.¹

Engaging with literature is especially important during early childhood. Early childhood literacy (ECL) is vital in strengthening future intellectual health – not just academic or health-related knowledge but creativity, curiosity, critical thinking, and problem-solving.² Shared reading is one example of an ECL-promoting activity. The American Academy of Pediatrics (AAP) encourages families to read with their children as often as possible during the first three years of life as an effective way to strengthen the parent-child relationship and promote brain development around language and reasoning.³ The AAP recommends shared reading up to age three because this is the most intensive period of brain development. Additionally, continued shared reading up to age five is important for school readiness and future educational attainment; children who have consistent shared reading experiences from ages 2 to 5 are more likely to succeed in grade school.⁴

Further, educational attainment is strongly associated with future health at the population-level.⁵ The cog-

nitive skills and background knowledge developed during school years help adults choose, for example, healthy lifestyles or understand medication regimens. Individuals who did not finish high school are also less likely to have health insurance.⁶ Further, education is influenced by other social determinants of health, including income. A study exploring how time in poverty influences high school graduation explained that proficient readers from poor backgrounds are less likely to finish high school than their less proficient counterparts who have never experienced poverty. Additionally, single-parent households - the majority of which are headed by single mothers - are more likely to live in poverty relative to married households (27 vs 8 percent), as well have reduced access to social or economic resources.^{7,8} However, one study showed that the benefits of shared reading were more strongly associated with educational outcomes (e.g., vocabulary knowledge, future educational success) in low- and middle-income households compared to high-income households.⁴

Recognizing the importance of reading in early childhood on social determinants of health like education, the Centers for Disease Control and Prevention (CDC) established Healthy People (HP) 2020 and 2030 goals to increase the number of children aged 0-5 whose families read to them frequently. The 2020 goal is the more rigorous of the two, aiming to increase the percentage of families reading with their young child every day to a target of 52.6% of (about 11.8 million) children.⁹

By understanding how trends in shared reading frequency have changed over time, those invested in early childhood development can make more informed

decisions about strategy or resource allocation to reach families who need the most support. This data snapshot reports on the percentage of families in the US who met the HP 2020 target for shared reading, stratifies trends by income and household composition, and discusses recommendations for interventions that increase frequent engagement with literature through shared reading.

Data Snapshot

Data

The Health Services and Resources Administration (HRSA) directs the National Survey of Children's Health (NSCH), and single- and multi-year data from 2016 to 2022 are publicly available in a searchable online database.¹⁰ Single-year survey data for the NSCH question "During the past week, how many days did you or a family member read to this child, age 0-5 years?" informs the HP 2020 goal for shared reading. Income strata are the upper (greater than or equal to 400%) and lower (less than 100%) household Federal Poverty Levels (FPL). Household composition strata are single-parent households (not differentiated by parent sex after 2016) and married households. The error bars show the margin of error for each year's sample. Sample sizes for each year are in Appendix Table 1.

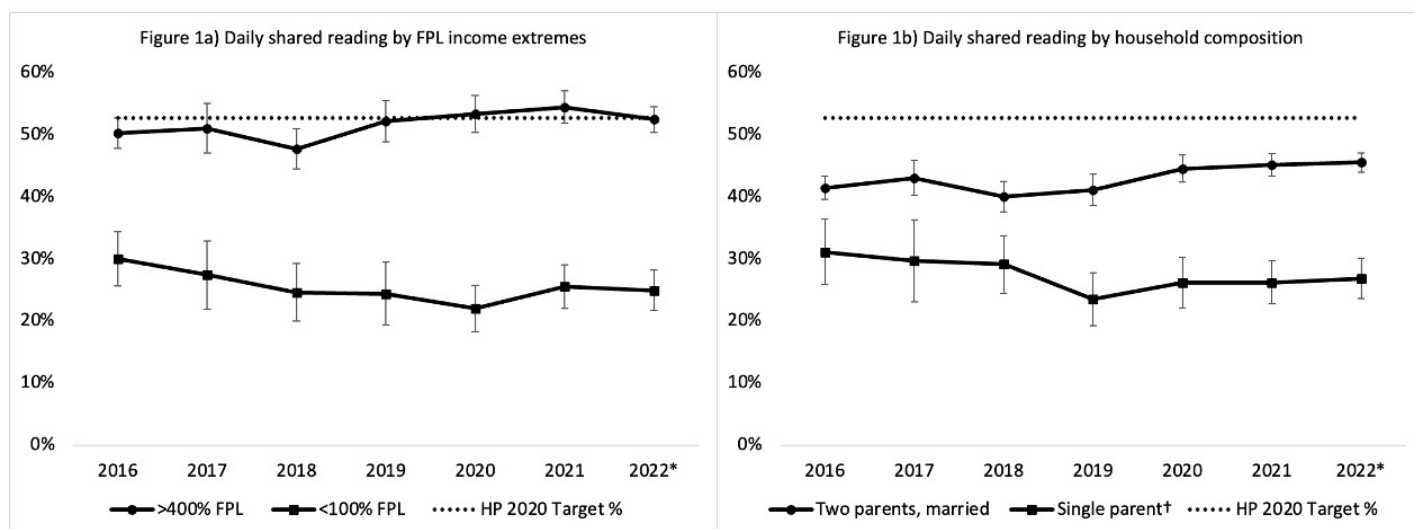
Results

Figure 1a shows the percentage of families reading to their children daily, stratified by the lowest and highest income groups. Compared to the benchmark, parents in the highest income category met the target percentage (52.6%) around 2019 and continued to improve until 2022. Among the lowest income group, the percentage of families reading daily to their children was lower than the average across all years and decreased from around 30% in 2016 to around 25% in 2022. The average disparity between high- and low-income families was 26%.

Figure 1b shows the percentage of families reading to their children daily, stratified by household composition. Neither type of household met the benchmark for daily shared reading. Married households increased shared reading from around 40% in 2016 to about 45% in 2022. Meanwhile, shared reading frequency among single-parent households decreased over time, from over 30% in 2016 to around 27% in 2022. The average disparity between married and single-parent households was 15%.

Overall, low-income households, which are also more likely to be single-parent and specifically single-mother homes, have lower frequencies of daily shared reading compared to higher income or married households, and this disparity has been stable over time. Trends for low-income compared to single-parent households

Figure 1a-b. Percentage of families reading daily to their children aged 0-5 (2016-2022) by income and household composition



*Data from 2022 has applied weights based on race and ethnicity that are not applied from 2016 to 2021

†After 2016, data on single parent households does not differentiate by sex of the parent. Other categories not represented here are cohabitating, unmarried parents and other household types (e.g., child with grandparents)

over time are almost identical, highlighting the overlap between low-income and single-parent families. Low-income and single-parent families should have the same opportunities to support early childhood literacy as wealthier families. Given the strong influence of education on future health, these trends underscore a need for innovative shared reading interventions that consider factors like income and household composition.

Evidence-based shared reading interventions

A popular intervention to increase shared reading is book gifting, where families receive age-appropriate reading materials and sometimes educational materials for parents on the benefits of reading in early

childhood. One of the largest book gifting programs is Reach Out and Read (ROR) – providing over 4.4 million children with reading materials through well-child visits each year.¹¹ Nationally, ROR reaches a large population of low-income families. However, using a social-ecological approach might reach more families.^{11,12} Table 1 summarizes book gifting interventions situated in multiple settings that positively affected shared reading and longer-term outcomes like school readiness.

Recommendations to promote shared reading in Utah

Utah has a higher percentage of children under 5 in the population (6.9%) compared to the national average (5.6%).^{16,17} To reach more children from low-income households, state and local policymakers could

Table 1. Evaluated interventions for increased shared reading					
Setting	Intervention	Population	Goals	Benefits	Limitations
Clinic	Reach out and read (ROR) ¹³	Families attending primary care clinics in North and South Carolina, USA	Improve caregiver reading frequency and behaviors through provision of age-appropriate reading materials for children/guidance for caregivers	Caregivers previously exposed to ROR were more likely to read to their child every day compared to caregivers without previous exposure	Might not capture most vulnerable families without access to primary care
Community	Little by Little ¹⁴	Predominately Hispanic, low-income families with 3–4-year-old children accessing WIC services in Los Angeles, USA	Improve school readiness through a literacy promotion program modeled after ROR	Spanish-speaking families showed an improved school readiness compared to the non-intervention group	Historical control group, partial blinding of assessment staff members
	Tender Shoots ¹⁵	Families from with children in preschool at early childhood centers in a small New Zealand city	Improve parent’s role in shared reading during preschool to support future involvement and child preparedness	Families used more extratextual talk during shared reading	Small sample size (n=23)

allocate both political and financial resources to develop or enhance shared reading programs in settings beyond the clinic. To increase access to materials for shared reading for single-mothers, developing or enhancing a program modeled after Little by Little (Table 1) could improve school readiness for some of the 20,000+ children participating in WIC across Utah.¹⁸ This option may be particularly well-suited to reach single-mother households who attend WIC programming. Additionally, an intervention like Tender Shoots (Table 1) could teach parents how to improve their shared reading skills and be involved in their child's learning; Utah already has local infrastructure to support similar community-based programs, namely public libraries and Early Head Start preschools.

reading strengthens intellectual health and helps build a foundation for continued educational attainment. However, data on shared reading frequency show that low-income and single-parent households participate in shared reading less frequently than higher-income or married households. More, this disparity persists over time. These trends underscore a need for shared reading interventions that consider environmental and social factors. Local and state policymakers can advocate for and direct financial resources toward ECL-promoting programs that set young children up for future educational attainment and better health.

Currently, Utah does not monitor data on shared reading. To better understand the unique contexts of Utah families, the NCHS question that informs HP 2020 could be administered through the Behavioral Risk Factor Surveillance System survey. This phone-based survey administered through the Department of Health and Human Services – Health Survey Office collects data on many behavioral, social, and demographic variables.¹⁹ Participants who indicate they live with children between 0-5 could be asked how often they or another family member read with the child.

Conclusion

Utilizing the arts as an enjoyable pathway to improved health outcomes can begin in early childhood through ECL-promoting activities like shared reading. Shared

Appendix Table 1. Sample Sizes

Year	Total sample	<100% FPL	>400% FPL	Single parent	Married
2016	6623	491	3330	403	5588
2017	2904	288	1366	219	2401
2018	3719	316	1883	451	2938
2019	3532	276	1778	342	2860
2020	5484	453	2795	548	4472
2021	9940	757	5198	939	8160
2022	9526	708	5147	918	7765

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