

Abstract

Down syndrome is one of the most prevalent chromosomal disorders. Although well studied regarding scientific fundamentals, less is known about health outcomes in ethnic populations like the Hispanic and Latino community in the United States of America. Here, a systematic literature review was conducted to explore whether there are experienced barriers to healthcare and to gather data to support the hypothesis that language barriers and other factors negatively impacts individuals with Down Syndrome and who are Hispanic/Latino. This preliminary data shows that language barriers are reported to affect Provider care.

Background and Introduction

Etiology: What causes down syndrome?

- Down syndrome a genetic condition that occurs when there is an extra copy of chromosome 21, meaning three copies of that chromosome instead of the usual two, resulting in the syndrome also known as trisomy 21.
- Down syndrome is one of the most common chromosomal abnormalities.
- Nondisjunction: Failure of chromosome 21 to separate during meiosis.
- Translocation: Part of the chromosome 21 attaches to another chromosome.
- Mosaicism: Some cells have trisomy 21, while others are normal

Risk factors: A family history or advanced maternal age are part of the cause of down syndrome.

Pathogenesis: How does down syndrome develop and affect the body?

• Down syndrome leads to different abnormalities across various organ systems.

Health disparities: Usually negative issues that restrict access to health care, may lead to obesity, and other specific health risks. **Cultural Influences**: Influence the role or perception of caregiving, feeding practices and healthcare decisions within the recipients culture.

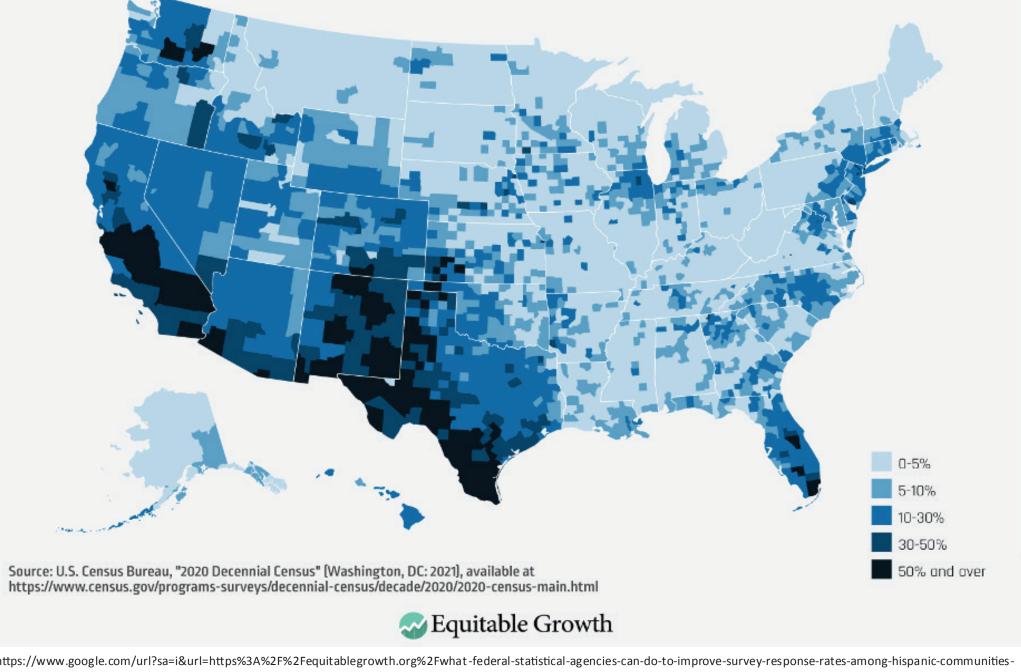
Educational and social support needs: How resources can be tailored to Latino families?

Intersectionality: The impact of ethnicity, socioeconomic factors and genetics.

Hispanic and Latino communities face unique cultural, social, and healthcare challenges with Down syndrome. As the largest minority group in the US, the growing Hispanic/Latino population highlights the need for targeted research that addresses the specific needs and disparities experienced by this community. This research investigates various factors that influence the health outcomes of Hispanic and Latino individuals with Down syndrome. Specifically, it explores healthcare disparities and barriers that this population faces, including language barriers and limited access to specialized care. Additionally, this study examines socioeconomic factors that may contribute to adverse health outcomes such as increased hospitalization rates and longer durations of hospital stays. Common health risks prevalent among Hispanic and Latino individuals with Down syndrome. By understanding these factors this research aims to highlight the unique challenges faced by this population and improve overall quality of care and health outcomes with individuals affected by Down Syndrome.

Understanding Down Syndrome in Hispanic Communities: Challenges and Potential Solutions Sara Anguiano¹, Zaven O'Bryant¹ School of Mathematics, Natural Science and Engineering, Department of Biology and Department of Physics and Astronomy ¹College of Southern Nevada, Las Vegas, Nevada NASA Nevada COP

Objectives and Methods • Present current research about Down Syndrome (DS). • Explain the potential challenges faced in the Hispanic/Latino Community. • Determine if there are health disparities that currently exist in the USA regarding DS and Latinos. • Identify main health disparities faced in the Latino Community and quantify their impact. • Future Studies: Determine if there is a link between DS outcomes and potential Health Disparities in the Latino community. Literature was chosen with specific criteria: studies less than 20 years, explanations of basic science, and/or social/clinical research. After compilation the information was plotted in tabular and/or graphical form. Statistical means and standard error (p<0.05) are displayed, where appropriate. **Genetics of Down Syndrome** 11 12 11 11 88 19 ontent%2Fuploads%2Fkaryotype.gif&imgrefurl=https%3A%2F%2Fwww.ndsccenter.org%2Fprograms-resources%2Fwhat-is-downsyndrome%2F&docid=BPC3NxXGFoWxhM&tbnid=GYXH4YEXoTy_SM&vet=12ahUKEwiwkOy_kueLAxUKN0QIHdliGTUQM3oECBYQAA..i&w=354&h=258&hcb=2&ved=2ahUKE USA Hispanic/Latino Population 2020 Census Coastal and Southwestern states have the highest share of Hispanic Americans Share of Hispanic population in the United States by county, 2020



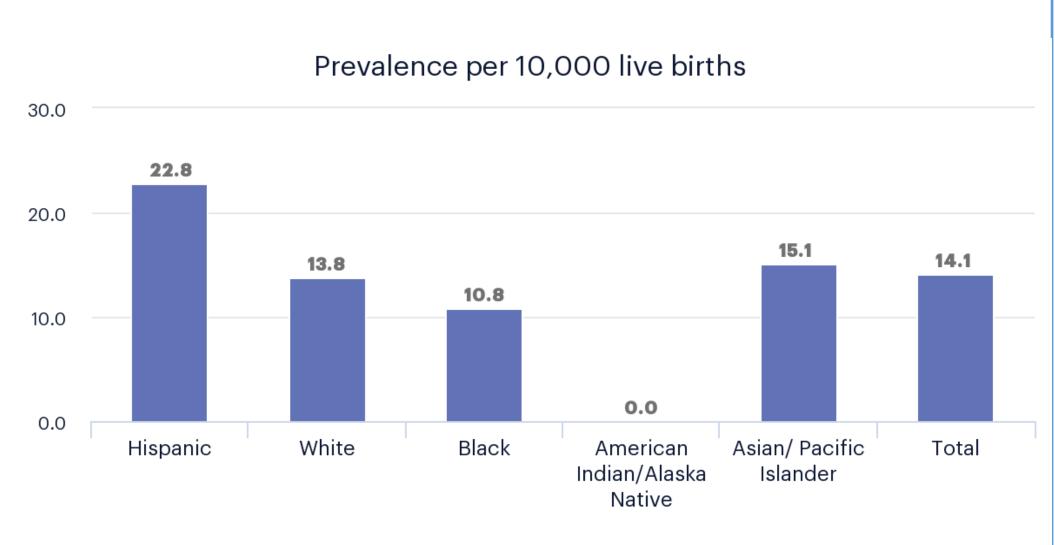
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Conclusion Results In conclusion, of the 21 papers collected _____ were analyzed. Language Barriers Healthcare Settings The similar data categories were compiled and analyzed. We found that: Language Barriers (n=21), surprisingly, have been less reported than other hurdles. While preliminary respondents are indicating obstacles to healthcare. These data suggest that more family and provider support may increase better outcomes for Hispanic/Latinos with DS. Next, a comparison between other ethnic groups will determine if there is a significant difference in other Figure 1: Data collected research papers (n=21) was compiled and communities. graphed. Results show that language was not noted to be a barrier in the healthcare setting while (n=7) articles stated that **Select References** the language barrier was a significant factor in the healthcare setting. Appetite. 2022 Mar 1;170:105888. doi: 10.1016/j.appet.2021.105888. Epub 2021 Dec 23. PMID: 34953969. Rubenstein E, Tewolde S, Michals A, Weuve J, Fortea J, Fox MP, Pescador Jimenez M, Obsticals to Healthcare Acceess Spanish Speaking Caregivers Parents (Other Providers) Scott A, Tripodis Y, Skotko BG. Alzheimer Dementia Among Individuals With Down Syndrome. JAMA Netw Open. 2024 Sep 3;7(9):e2435018. doi: 11%

Table 1: Data collected research papers (n=21) was compiled and tabulated. Results show that (n=2) a couple studies of the (n=21) indicated that there were significant obstacles to obtaining healthcare. Another couple (n=2) of articles presented data on the caregivers present/interactions. The last data collected shows parental/family providers in the research reported by the investigators.

17.70%

Tennessee Hispanic/Latino Population has Higher Prevalence of DS



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