

***Evidence-based Policy Making for  
People with Disabilities in  
a Changing North Korea***

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# Acknowledgement of Co-Authors

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# Outline

- **Introduction and Literature Review**
- **Research Questions**
- **Methodology**
- **Data Visualization-Based Analysis and Findings**
- **Conclusions**

# Convention on the Rights of Persons with Disabilities

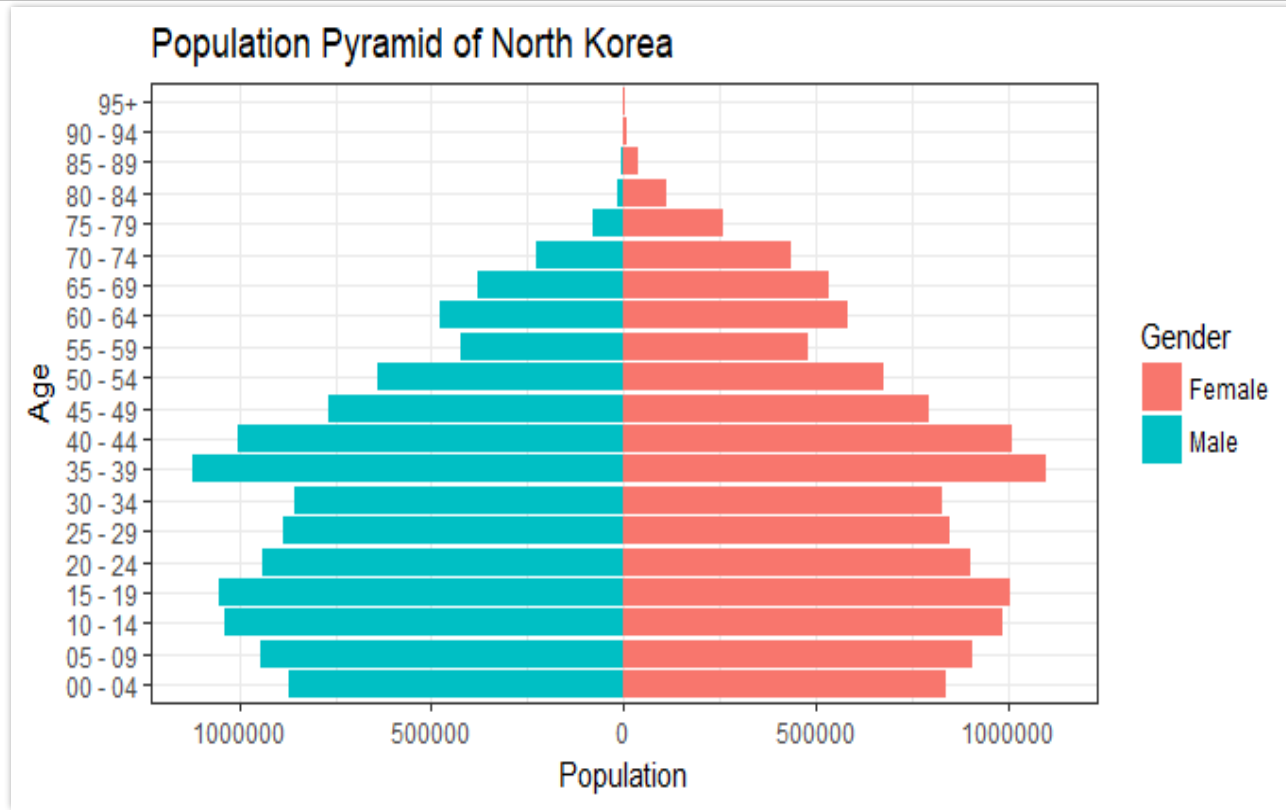
“This invitation and the recent ratification of the CRPD, whereby the authorities will have to progressively implement its provisions, are a positive indication of the promotion and protection of the rights of persons with disabilities in the country.”

Catalina Devandas-Aguilar, United Nations

# Introduction

- **International Strategy and Reconciliation Foundation (ISR Foundation) conducts research on evidence-based policy making**
- **Why North Korea?**

# North Korea Population Structure



# Key Literature on Disabilities in North Korea

- **People with Disabilities in a Changing North Korea (Katharina Zellweger)**
- **End of Mission Statement by the United Nations Special Rapporteur on the rights of persons with disabilities (Ms. Catalina Devandas-Aguilar, United Nations)**

# Research Questions

- **Are there certain segments of the North Korean population that are disproportionately affected by disabilities?**
  - **Prevalence of people with disabilities**
  - **Person-level Correlates (e.g., Age and gender)**
  - **Environmental Correlates (e.g. Rural vs. Urban)**
- **How do prevalence and incidence of disabilities in the DPRK compare internationally?**



# Methodology

- **Using 2008 North Korean census and 2012 Nutrition Survey**
- **Inform public policy officials to the best of our ability**
- **Team Science and Data Visualizations**

# DPRK Census Question on Disabilities

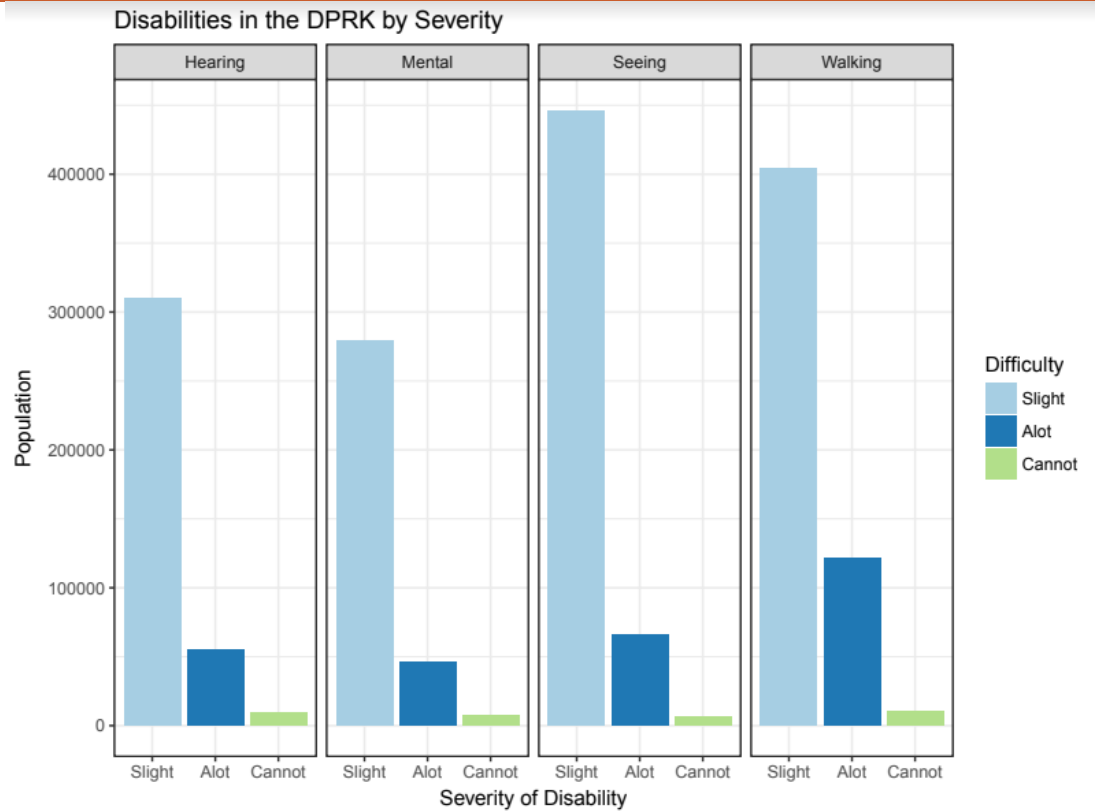
## Questionnaire for Disabilities in 2008 Population Census

<b>Disability Type</b>	<b>Question asked by Surveyor</b>
Seeing	Does ___ have difficulty seeing even if wearing glasses?
Hearing	Does ___ have difficulty hearing?
Walking	Does ___ have difficulty walking or climbing stairs?
Mental	Does ___ have difficulty remembering or concentrating?

# Limitations

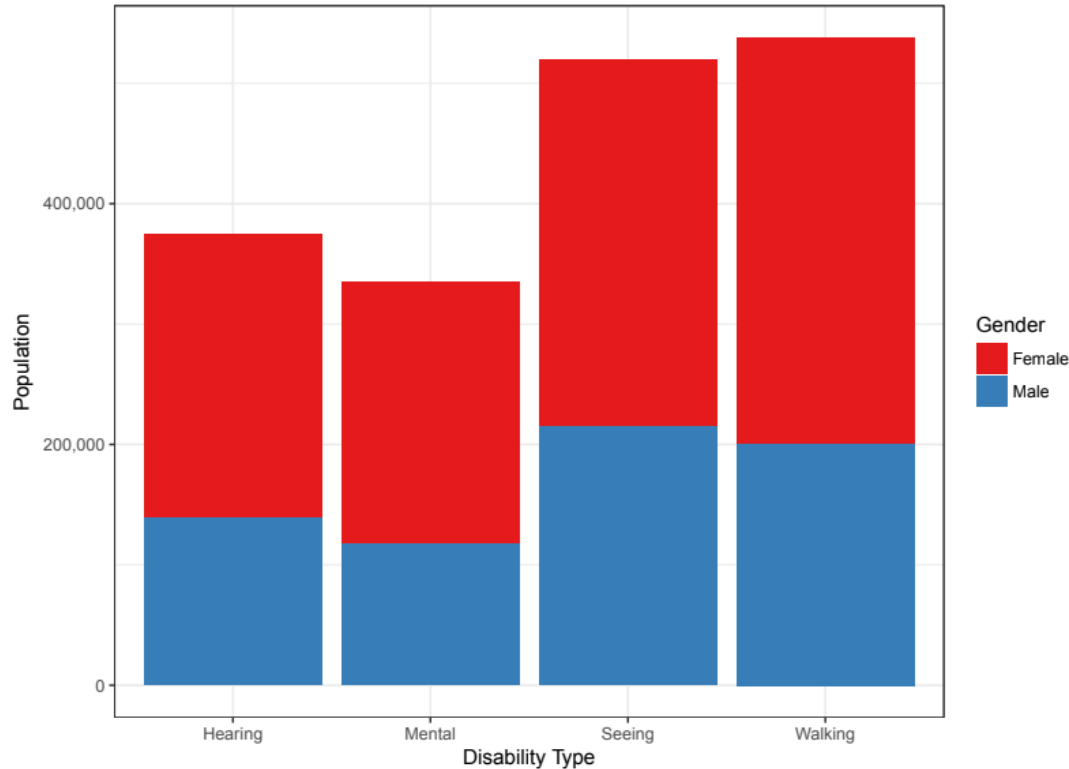
- **Cultural Barriers**
- **Social Stigma with Disabilities**
- **Lack of Data**

# North Korean People with Disabilities by Level of Severity



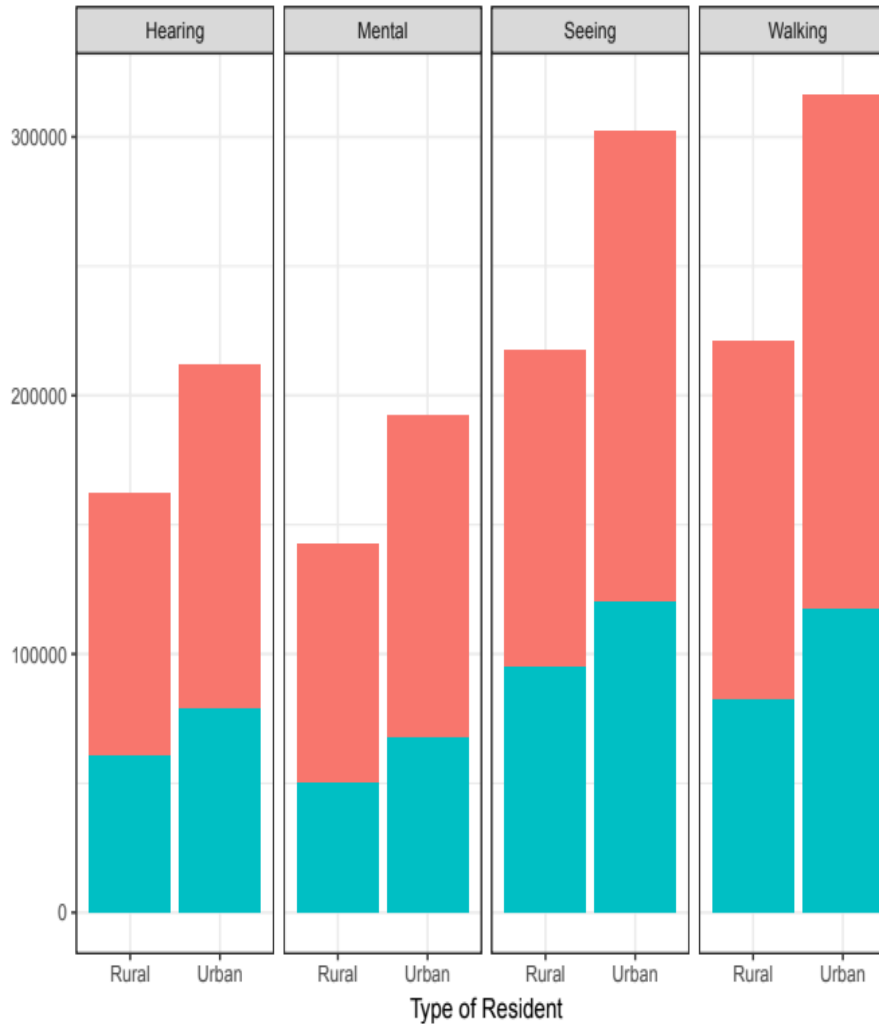
# North Korean People with Disabilities by Gender

DPRK Disability Type by Gender

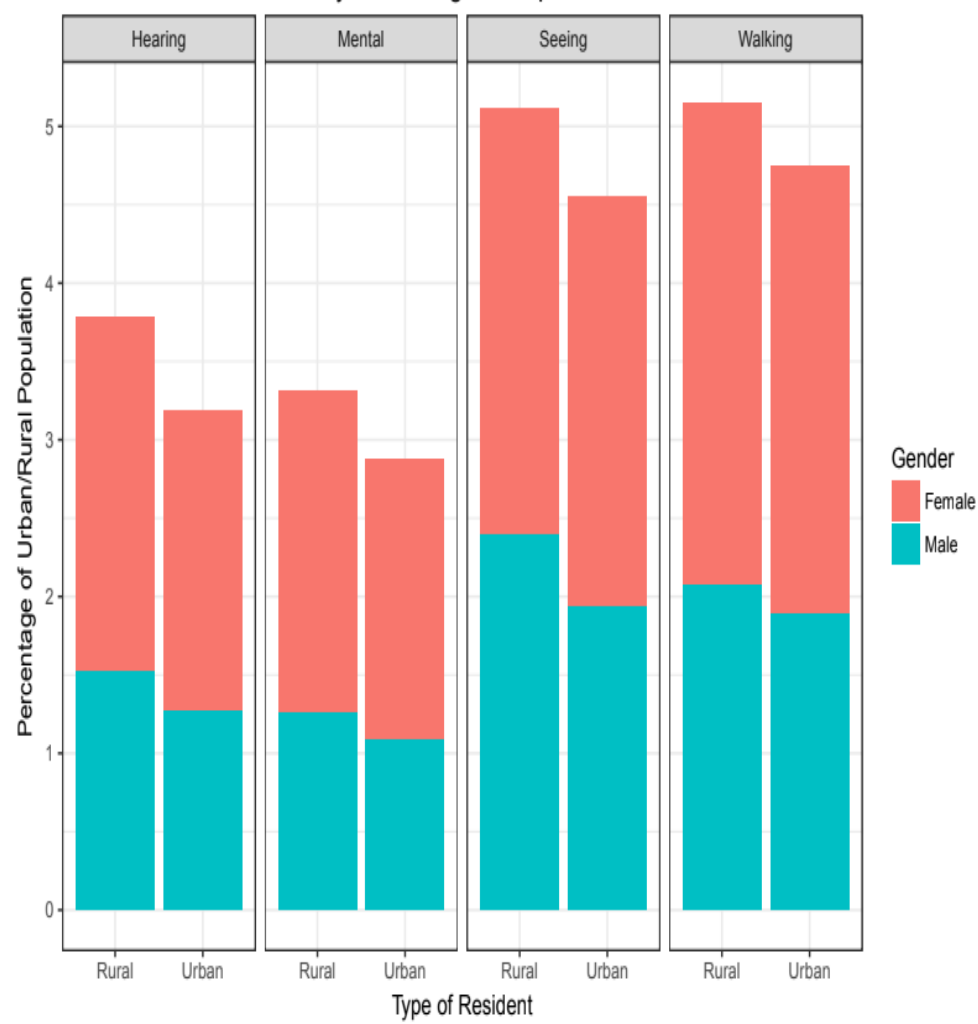


Disability Type	Male	Female	Total Number
Seeing	215 890	303 683	519 573
Hearing	140 323	234 129	374 452
Walking	200 825	336 671	537 496
Mental	118 498	216 354	334 852
<b>Total Disabilities</b>	<b>675 536</b>	<b>1 090 837</b>	<b>1 766 373</b>

Prevalence of Disabilities in the DPRK

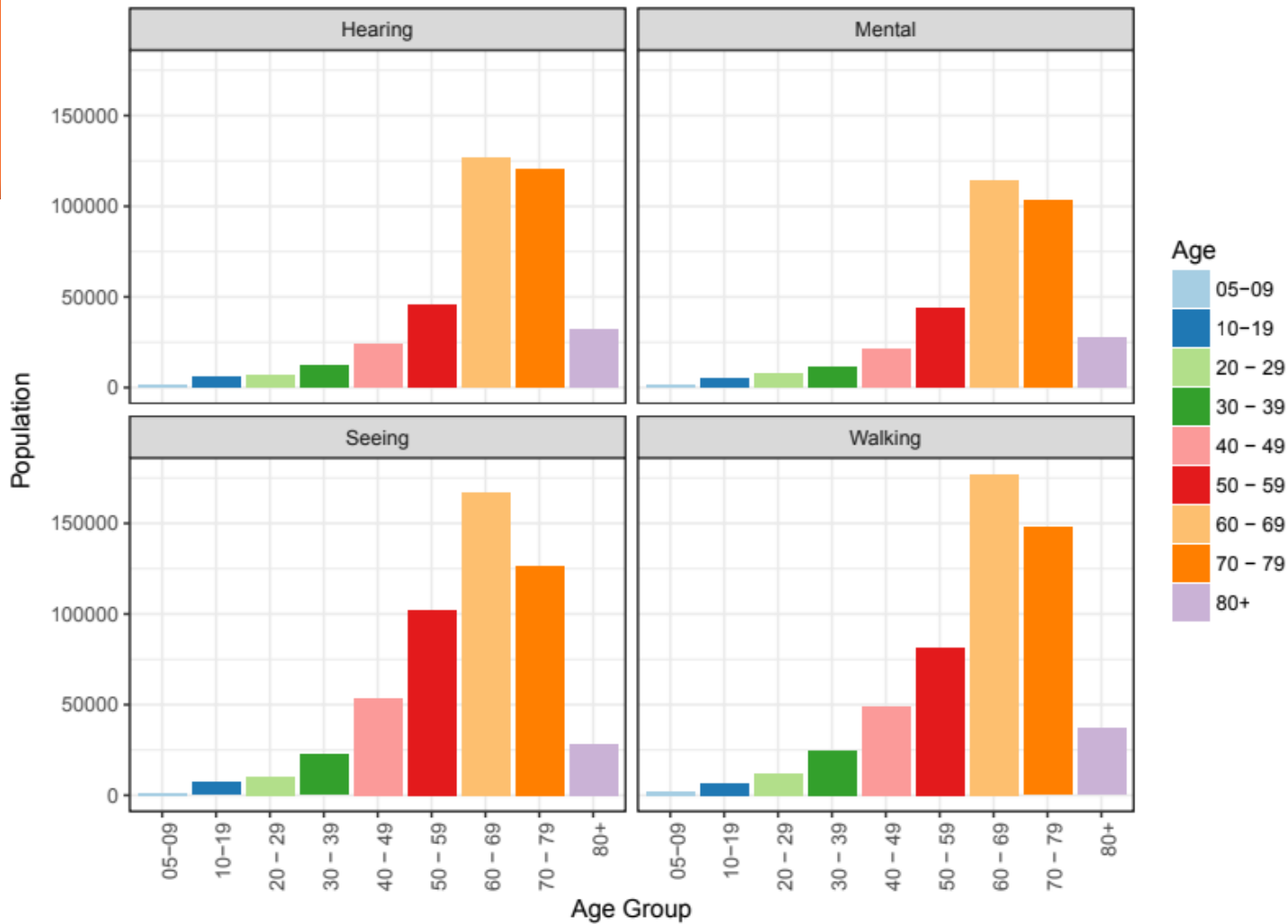


Disabilities in the DPRK by Percentage of Population

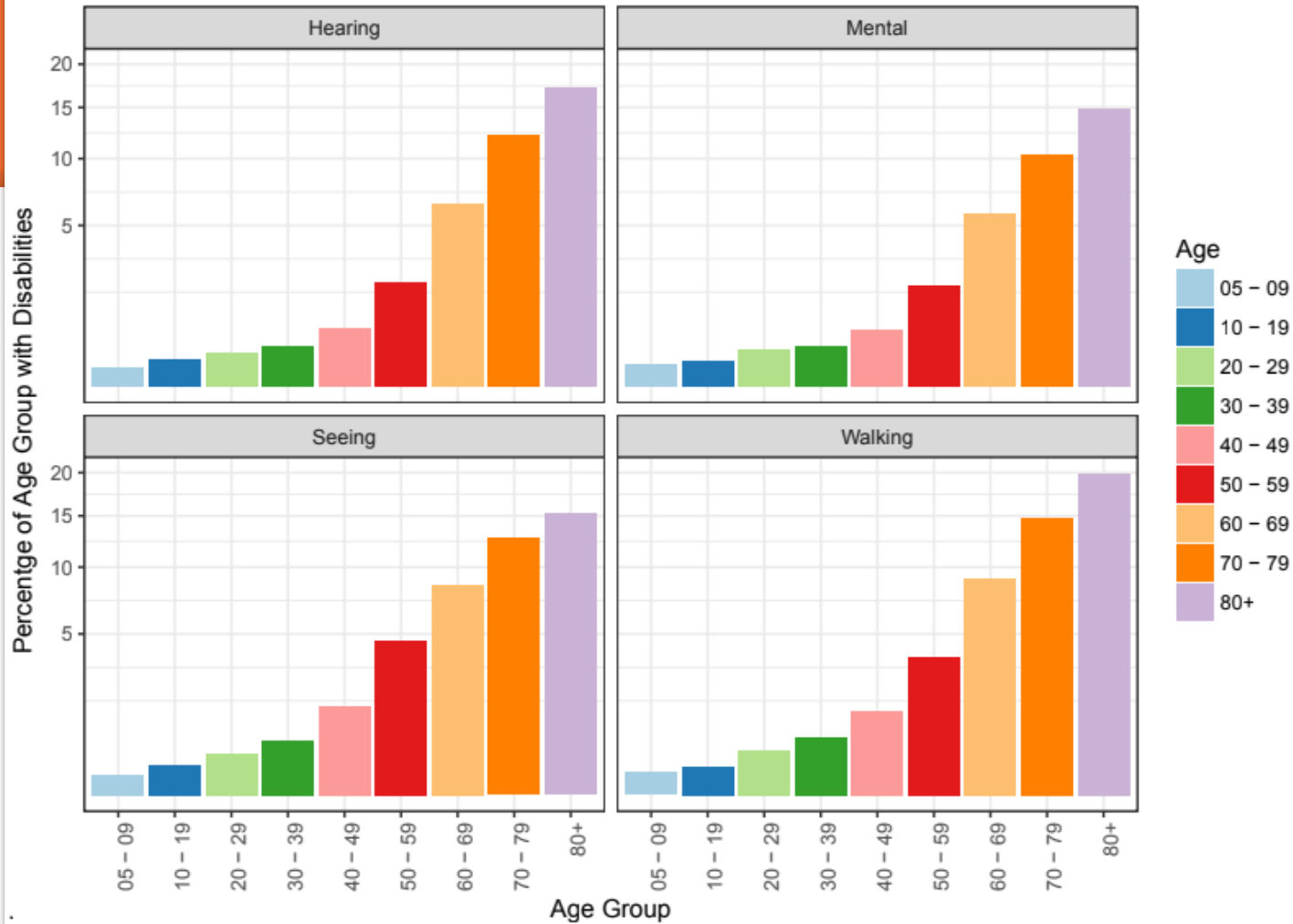


# North Korean People by Disability Type and Age

## Age Distribution of Disabilities in the DPRK



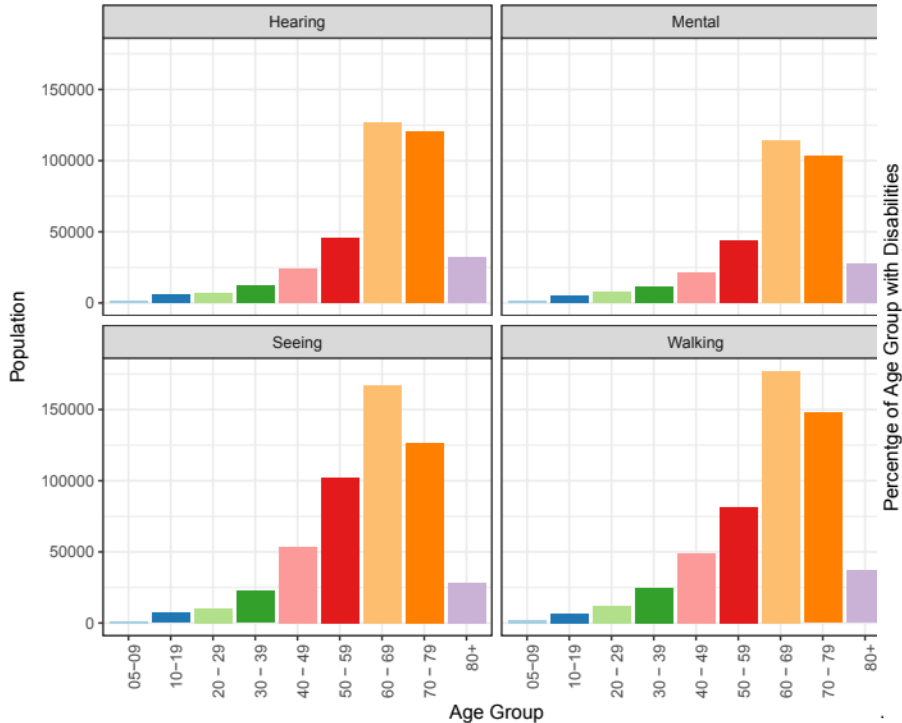
## Age Distribution of Disabilities in the DPRK



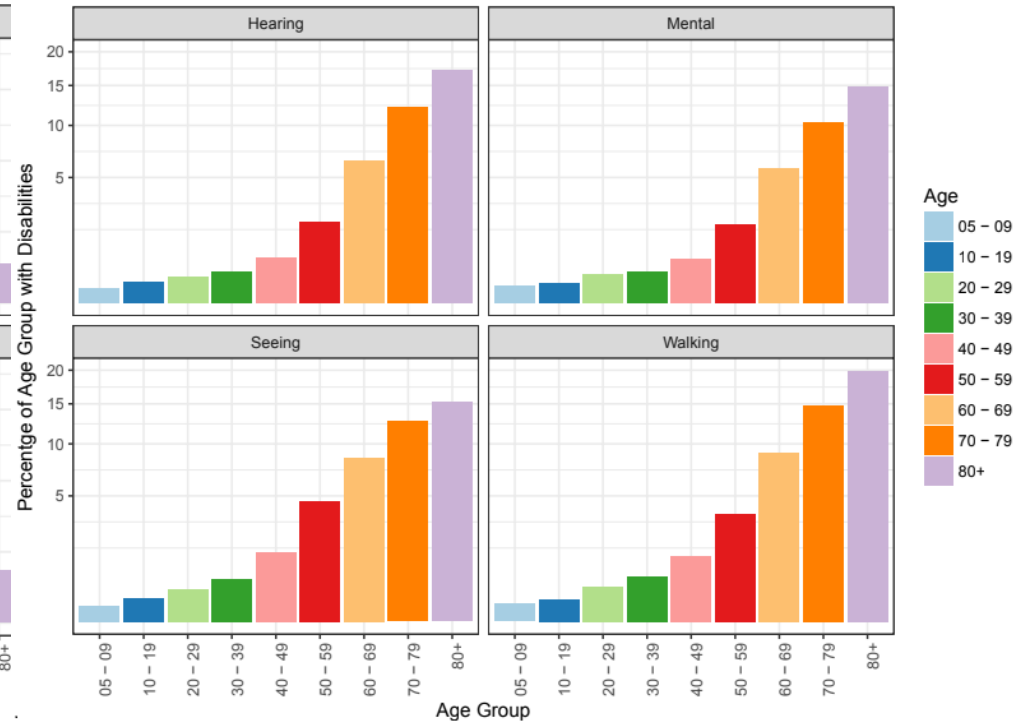


# North Korean People by Disability Type, Age, and by Distribution

Age Distribution of Disabilities in the DPRK



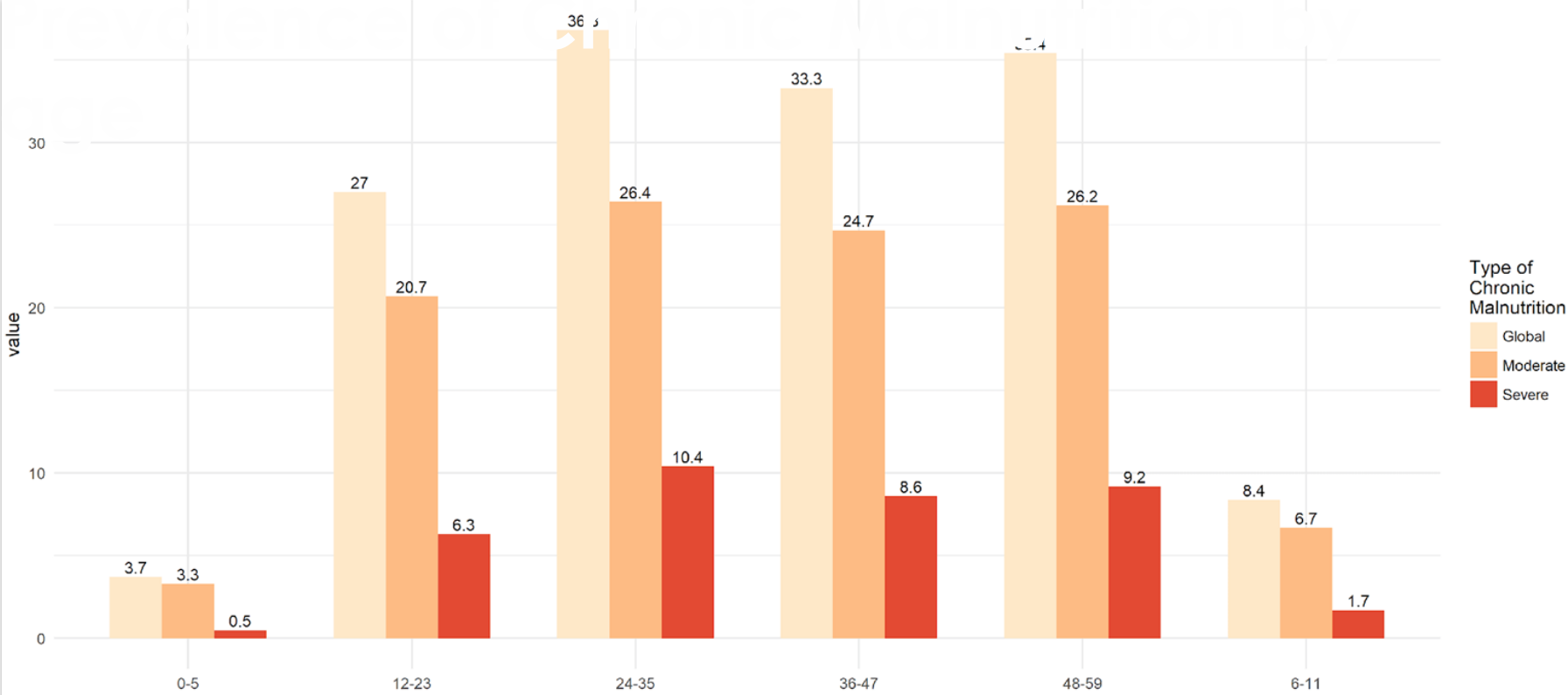
Age Distribution of Disabilities in the DPRK



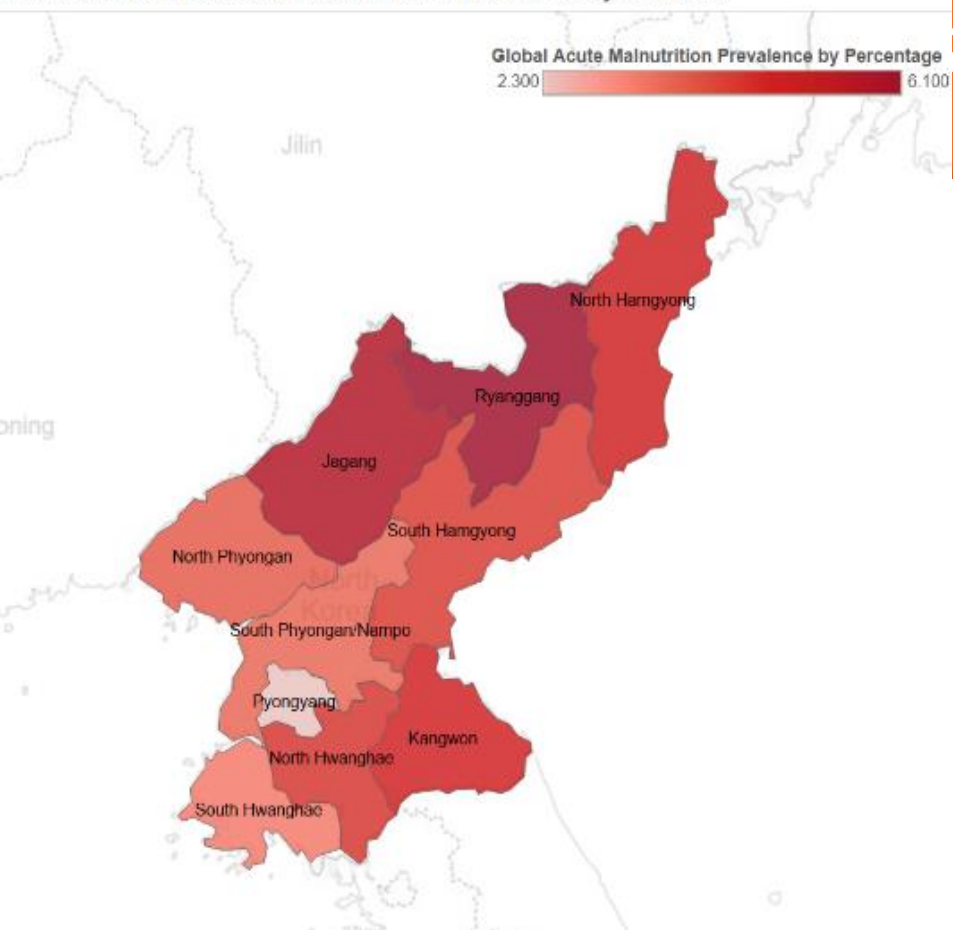
# **Malnutrition in North Korea and Its Relevance to Disabilities**

**Key findings from the 2012 Nutritional  
Survey and  
the implications for North Korea's  
disabled people**

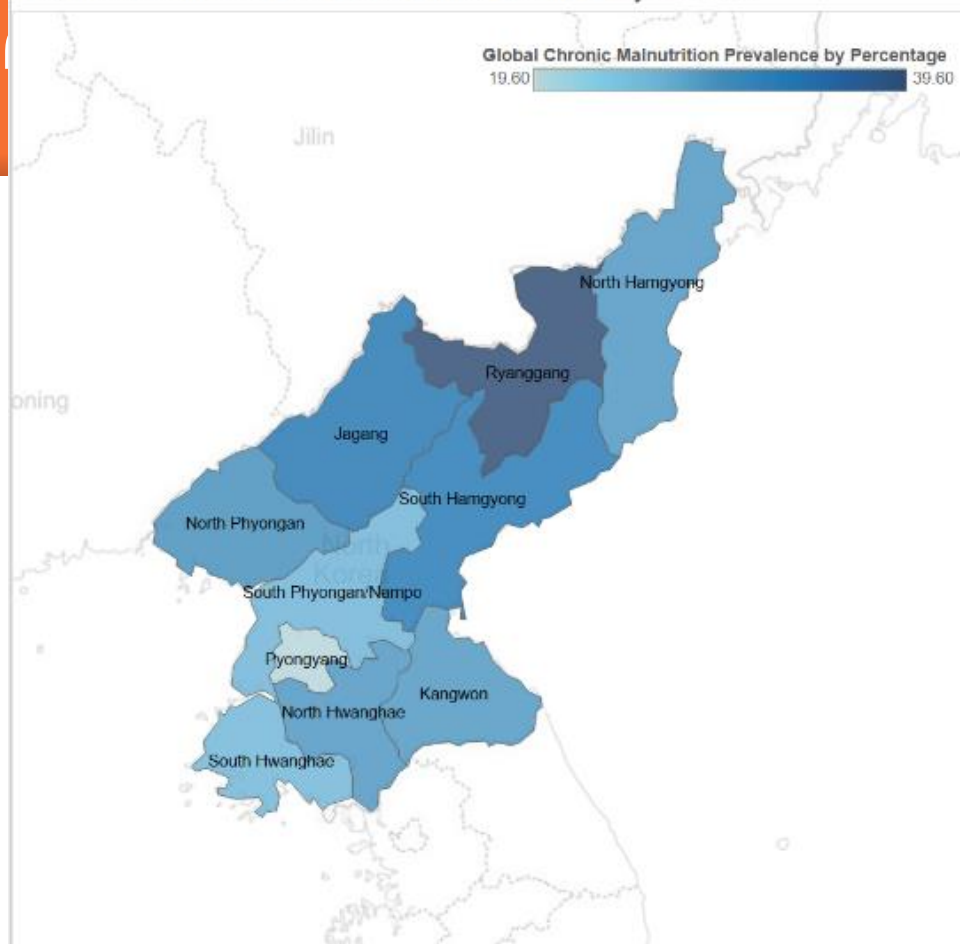
# Prevalence of Chronic Malnutrition by age



Prevalence of Global Acute Malnutrition in Children by Province



Prevalence of Global Chronic Malnutrition in Children by Province



# Conclusion

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-Implications for policy makers

-Future Research

-Use of DVs

# Cited Works

- Campbell, Anne, and Uren, Marie. (2011). 'The Invisibles'... Disability in China in the 21st Century. *International Journal of Special Education*, 26(1), 12-24. Retrieved from <http://files.eric.ed.gov/fulltext/EJ921178.pdf>
- Central Bureau of Statistics. (2009). DPR Korea Population Census National Report. Retrieved from [https://unstats.un.org/unsd/demographic/sources/census/wphc/North\\_Korea/Final%20national%20census%20report.pdf](https://unstats.un.org/unsd/demographic/sources/census/wphc/North_Korea/Final%20national%20census%20report.pdf)
- Central Bureau of Statistics. (March 2013). DPRK Final Report of the National Nutrition Survey 2012. Retrieved from [https://www.unicef.org/eapro/DPRK\\_National\\_Nutrition\\_Survey\\_2012.pdf](https://www.unicef.org/eapro/DPRK_National_Nutrition_Survey_2012.pdf)
- Fujiura, Glenn T. and Hye J. Park, Violet Rutkowski-Kmitta. (November 2005). Disability Statistics in the Developing World: A Reflection on the Meanings in our Numbers. *Journal of Applied Research in Intellectual Disabilities* Volume 18, Issue 4. Retrieved from <https://doi-org.libproxy.mtroyal.ca/10.1111/j.1468-3148.2005.00268.x>
- Kim, Shin Jeong and Kang, Kyung Ah. (June 2003). Meaning of life for adolescents with a physical disability in Korea. *Journal of Advanced Nursing*, Volume 43, Issue 2. Retrieved from [https://doi-org.libproxy.mtroyal.ca/10.1046/j.1365-2648.2003.02689\\_1.x](https://doi-org.libproxy.mtroyal.ca/10.1046/j.1365-2648.2003.02689_1.x)
- Linhorst, Molly. (2014). Visualizing the "Hermit Kingdom" Graphing, Mapping, and Analyzing the 2008 North Korean Census. *Syracuse University Honors Program Capstone Projects*. Retrieved from [https://surface.syr.edu/honors\\_capstone/809](https://surface.syr.edu/honors_capstone/809)
- Murray, C., C. J., and Lopez, Alan. (1994). Quantifying disability: data, methods and results. *Bulletin of the World Health Organization*, 72(3) 481. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2486704/pdf/bullwho00414-0157.pdf>
- Murray, D., Christopher J L et al. (2012). Disability-adjusted life years (DALYs) for 291 Diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *The Lancet*, Volume 380, Issue 9859, p. 2197 - 2223. Retrieved from [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(12\)61689-4/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)61689-4/fulltext)
- Zellweger, Katharina. (2014). People with Disabilities in a Changing North Korea. *Shorenstein APARC Working Papers, Stanford University*. Retrieved from [http://aparc.fsi.stanford.edu/sites/default/files/Zellweger\\_Disabilities\\_DPRK\\_w](http://aparc.fsi.stanford.edu/sites/default/files/Zellweger_Disabilities_DPRK_w)

# Thank you

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