

# Intergenerational Poverty: Examining Healthcare Profiles and Utilization

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## Context

One of the three strategic priorities of the Utah Department of Health is for “[the] people of Utah [to] be among the healthiest in the country.” One key component of attaining this goal is to identify those who need help the most. Intergenerational Poverty (IGP) is often speculated to have long-lasting, negative consequences on health outcomes. The focus of this brief is to investigate the healthcare profiles and utilization of those in intergenerational poverty.

## Hypothesis & Methods

The Office of Health Care Statistics at the Utah Department of Health houses the Utah All Payer Claims Database. By administrative rule, insurance companies and Medicaid are required to submit healthcare claims and enrollment data to a designated data processing vendor. Data is collected on a monthly basis and processed biannually. The database currently contains healthcare claims data from 2013 to quarter one (January–April) of 2018.

The Office of Health Care Statistics staff linked person demographic information from the provided study groups with enrollment information in the All Payer Claims Database. People were linked using a deterministic methodology.

Once the study groups were linked in the All Payer Claims Database, medical claims and eligibility were extracted for that person. Because a person may have multiple insurance benefits, only claims and eligibility marked as “primary” were used in the analysis.

Our hypothesis follows the general thought that people in “intergenerational poverty” have higher “risk scores” and healthcare utilization (expenditures) than a comparable group. We tested this hypothesis by comparing the average 3M Clinical Risk Group (CRG) medical index (risk score) and median monthly healthcare expenditures between the provided 2012 IGP and comparison study groups. The 3M Clinical Risk Group (CRG) software categorizes individuals into groups with similar healthcare needs and utilization based on historical healthcare claims data and demographics. The associated medical index (risk score) is a measure of expected healthcare expenditures where average risk score is standardized to 1. Individuals with risk scores greater than 1 are expected to have higher-than-average healthcare expenditures, while individuals with risk scores less than 1 are expected to have lower-than-average healthcare expenditures.

Because males and females have different healthcare utilization patterns, we broke the study groups into male and female subgroups. We noted the provided 2012 IGP and comparison study groups had very different age distributions (see Table 3 and Table 9). Roughly 70% of the 2012 IGP group fell in the age range 0–21 years while less than 1% of the 2012 comparison group fell in that same age range. In order to make fair comparisons between these two groups, only the population that was 22 years old or older was compared.

## Results & Concluding Remarks

We found for both males and females, the 2012 IGP groups had much higher average risk scores and higher median monthly healthcare expenditures than the comparison groups (see Charts 1 and 2 below). The 2012 IGP male group showed about double the risk and four times the expenditures than the comparison group.

Adult females in the 2012 IGP group had both the highest average risk score and the highest median monthly healthcare expenditures, with their average risk score 30% higher and median monthly healthcare expenditures more than double relative to the female 2012 comparison group. It should be noted, the expenditure amount is higher than can be explained by the higher risk score. Efforts to improve health outcomes and lower healthcare expenditures could have the greatest potential within this group.

This report does not conduct a deep dive into the factors impacting the higher risk scores and healthcare expenditures. However, examining the CRG categories highlights a few potential areas that may be raising risk scores and expenditures, including complicated deliveries, mental illnesses, and primary chronic diseases (see Tables 4–7 below). Place of service often plays a large role in the cost of healthcare. Future analysis could explore whether differences in expenditures are being driven by high-cost utilization patterns, such as high numbers of avoidable emergency room visits or use of brand name prescription drugs.

Many of the CRG categories deal with mental health issues. Understanding and taking appropriate action for mental health issues could be a valuable step in helping produce better health outcomes for this population.

Chart 1. 2013 CRG Risk Scores — 2012 IGP and Comparison Groups

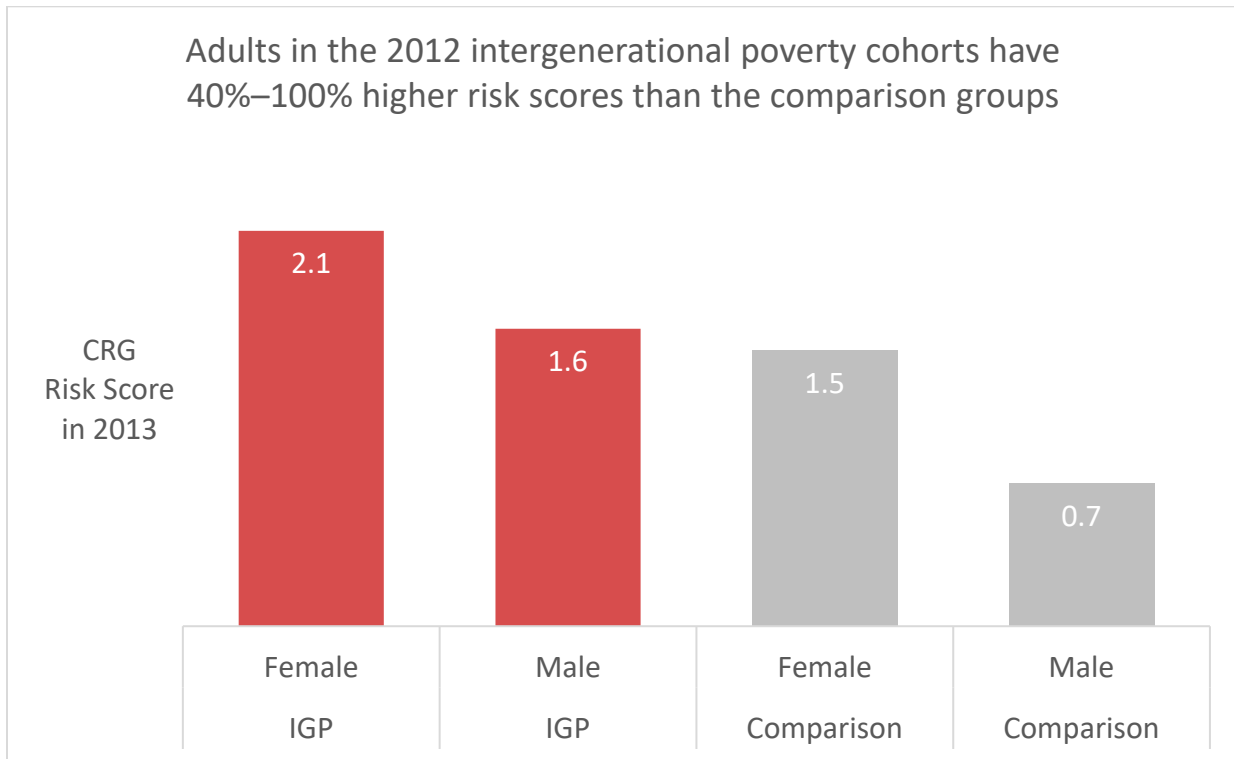


Chart 2. 2013 Median Monthly Healthcare Expenditures — 2012 IGP and Comparison Groups

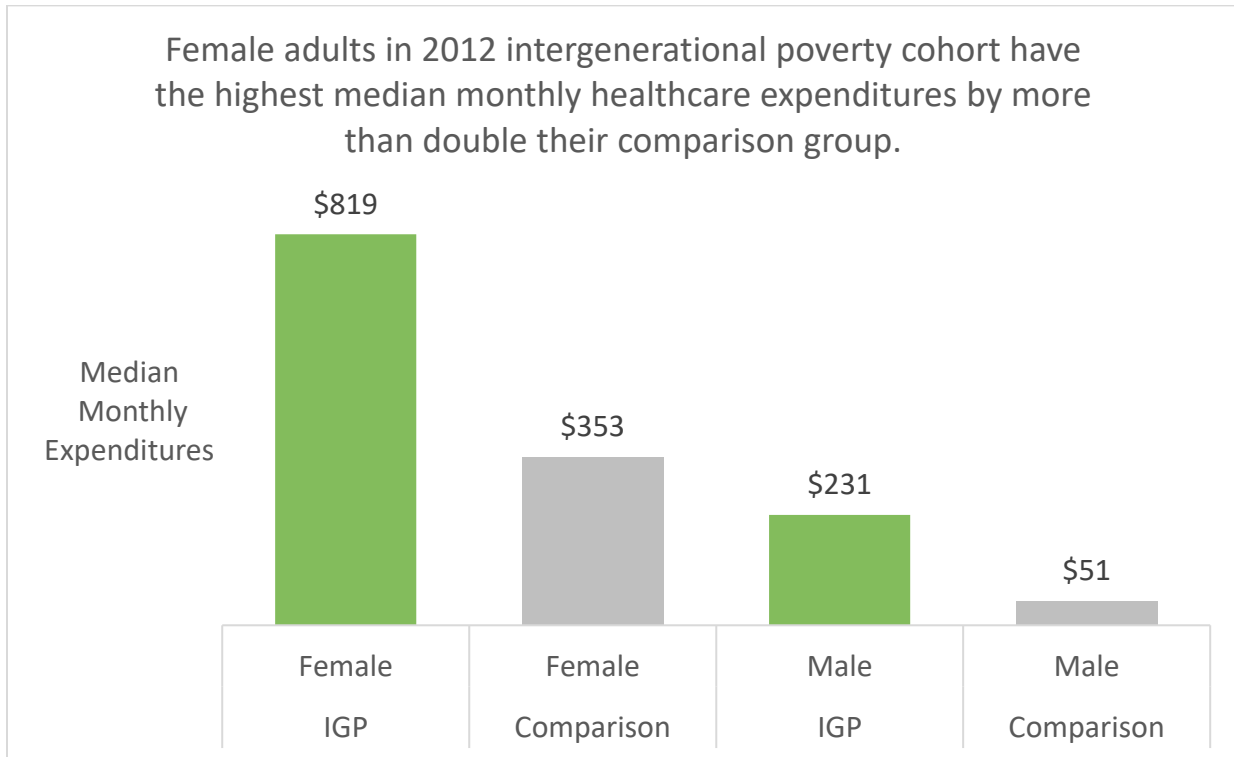


Table 3. Age-Gender Distribution of Groups of the 2012 Study Groups

Age Groupings	IGP				Comparison			
	Male		Female		Male		Female	
0–22 years	12,010	82%	11,472	58%	2	0%	1	0%
22–31 years	1,747	12%	5,902	30%	976	46%	1,966	59%
32–41 years	920	6%	2,523	13%	1,080	51%	1,294	39%
42–55 years	3	0%	13	0%	65	3%	83	2%
56+ years	1	0%	1	0%	1	0%	0	0%

Table 4. Top 10 CRG classifications, risk scores, and counts — 2012 Female Adult IGP Group

CRG Description	CRG Risk Score	Persons	Percent
Healthy	0.24	2,156	25.5%
Non-User	0.00	753	8.9%
Multiple Minor Chronic Primary Chronic Diseases	1.41	429	5.1%
Delivery with Complications with Other Significant Illness	6.03	409	4.8%
Delivery without Complications with Other Significant Illness	4.70	391	4.6%
Delivery without Complications without Other Significant Illness	3.74	374	4.4%
Depression	0.55	232	2.7%
Chronic Pain	1.55	193	2.3%
Delivery with Complications without Other Significant Illness	4.74	179	2.1%
Hypertension	0.72	162	1.9%

Table 5. Top 10 CRG classifications, risk scores, and counts — 2012 Female Adult Comparison Group

CRG Description	CRG Risk Score	Persons	Percent
Healthy	0.24	1,150	34.4%
Non-User	0.00	441	13.2%
Delivery without Complications without Other Significant Illness	3.74	191	5.7%
Delivery with Complications with Other Significant Illness	6.03	135	4.0%
Multiple Minor Chronic Primary Chronic Diseases	1.33	117	3.5%
Delivery without Complications with Other Significant Illness	4.70	100	3.0%
Depression	0.55	97	2.9%
Chronic Thyroid Disease	0.58	84	2.5%
Hypertension	0.67	67	2.0%
Delivery with Complications without Other Significant Illness	4.74	64	1.9%

Table 6. Top 10 CRG classifications, risk scores, and counts — 2012 Male Adult IGP Group

CRG Description	CRG Risk Score	Persons	Percent
Healthy	0.24	641	24.0%
Non-User	0.00	530	19.8%
Schizophrenia	0.77	133	5.0%
Multiple Minor Chronic Primary Chronic Diseases	1.37	73	2.7%
Schizophrenia and Other Moderate Chronic Disease	2.23	70	2.6%
Hypertension	0.71	67	2.5%
Depression	0.55	61	2.3%
Major Mental Illness or Substance Abuse Diagnosis without Other Significant Illness	0.54	48	1.8%
Chronic Pain	1.56	46	1.7%
One Other Moderate Chronic Disease and Other Chronic Disease Level 2	1.98	41	1.5%

Table 7. Top 10 CRG classifications, risk scores, and counts — 2012 Male Adult Comparison Group

CRG Description	CRG Risk Score	Persons	Percent
Healthy	0.24	758	35.7%
Non-User	0.00	655	30.9%
Hypertension	0.63	69	3.3%
Multiple Minor Chronic Primary Chronic Diseases	1.31	48	2.3%
Chronic Neuromuscular and Other Neurological Diagnoses - Minor	0.65	45	2.1%
Depression	0.55	30	1.4%
Major Mental Illness or Substance Abuse Diagnosis without Other Significant Illness	0.54	28	1.3%
Other Significant Drug Abuse	1.06	24	1.1%
Diabetes	1.07	21	1.0%
Malignancy Diagnosis without Other Significant Illness	0.67	19	0.9%

## Aggregate Data for 2018 Cohort

Unlike the 2012 IGP and comparison study groups, the 2018 IGP and comparison study groups had similar age groupings, particularly for the pediatric population. A follow-up analysis specifically examining the pediatric population could be beneficial.

The table below shows the risk and expenditure data in 2017 for the 2018 cohort.

Table 8. CRG Risk Score and Median Monthly Healthcare Expenditures — 2018 IGP & Comparison Groups

Cohort	Year	CRG Risk Score	Member Months	Median Monthly Expenditures	Persons
IGP 18–21	2017	1.62	38,973	\$343.98	4,487
IGP Adult	2017	2.22	161,390	\$758.34	20,165
IGP Kids	2017	1.01	339,187	\$202.88	37,433
Non-IGP 18–21	2017	0.95	73,604	\$185.05	8,179
Non-IGP Adult	2017	1.93	365,084	\$381.23	44,362
Non-IGP Kids	2017	1.12	1,155,753	\$171.09	125,139

Table 9. Age-Gender Distribution of Groups of the 2018 Study Groups

Age Groupings	IGP				Comparison			
	Male		Female		Male		Female	
0–22 years	21,443	80%	21,544	61%	69,169	83%	67,151	71%
22–31 years	3,195	12%	9,144	26%	5,009	6%	11,325	12%
32–41 years	1,836	7%	4,237	12%	6,052	7%	11,949	13%
42–55 years	236	1%	487	1%	2,781	3%	4,365	5%
56+ years	0	0%	0	0%	0	0%	1	0%