Health Care Savings Associated with Enrollment in Carol's Wish

CIVHC Research, Partnerships, and Innovation Team (RPI)

Valerie Garrison	Evaluation Analyst (Lead Project Analyst)
Megha Jha	Senior Evaluation Analyst
Darcy Holladay Ford	Director of Research

Carol's Wish

No one should receive substandard medical care for financial reasons.

...What does that look like in terms of outcomes for participants?

Evaluation Design

- Collaborated with CGCA & Subject Matter Experts
  - Common patient diagnosis & treatment experience
  - Details available in claims
- Collected Supplemental Information
  - CW Program Data
  - Case Studies
  - Survey Results

Total 2020-2023 Estimated Financial Support for Participants
Among those Included in the Analysis, by Type of Assistance
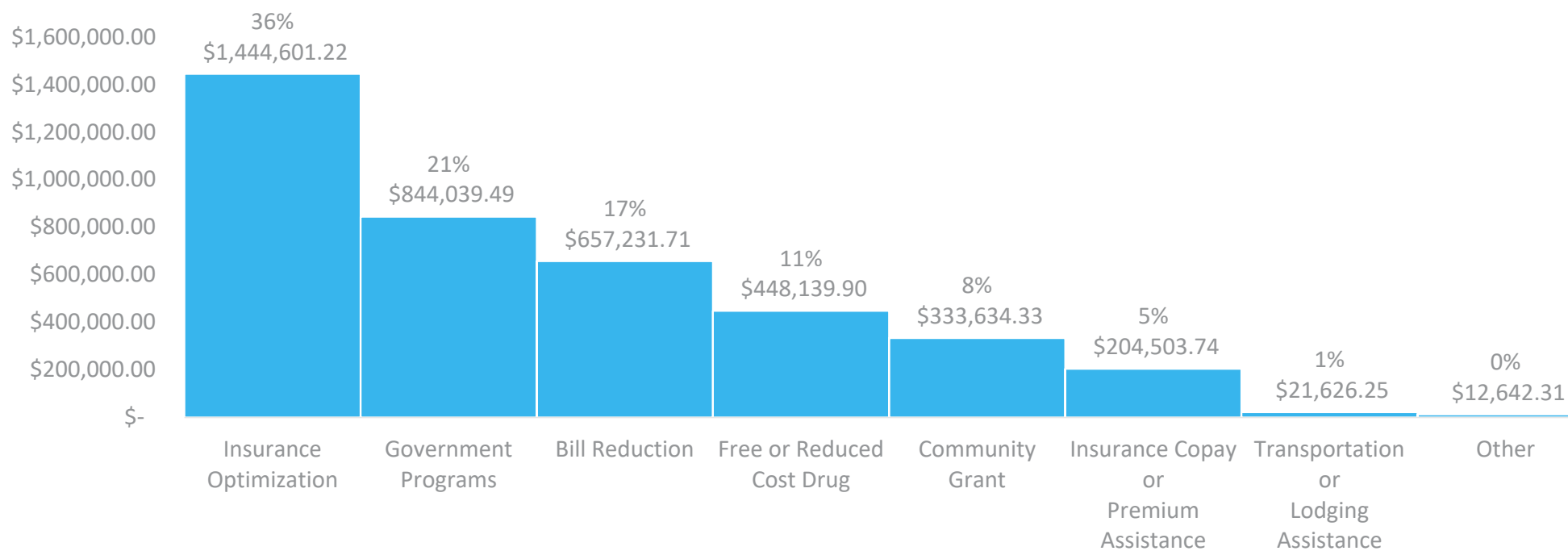
Evaluation Design

- Focused Evaluation Scope
  - Primary impact = insurance optimization
    - What would we expect to see as a result?
    - What can be measured using CO APCD data?

- Evaluation Question
  - Do CW participants pay a lower member out-of-pocket proportion for health care than non-participants?
  - Does CW successfully support individuals who are chronically under-resourced?
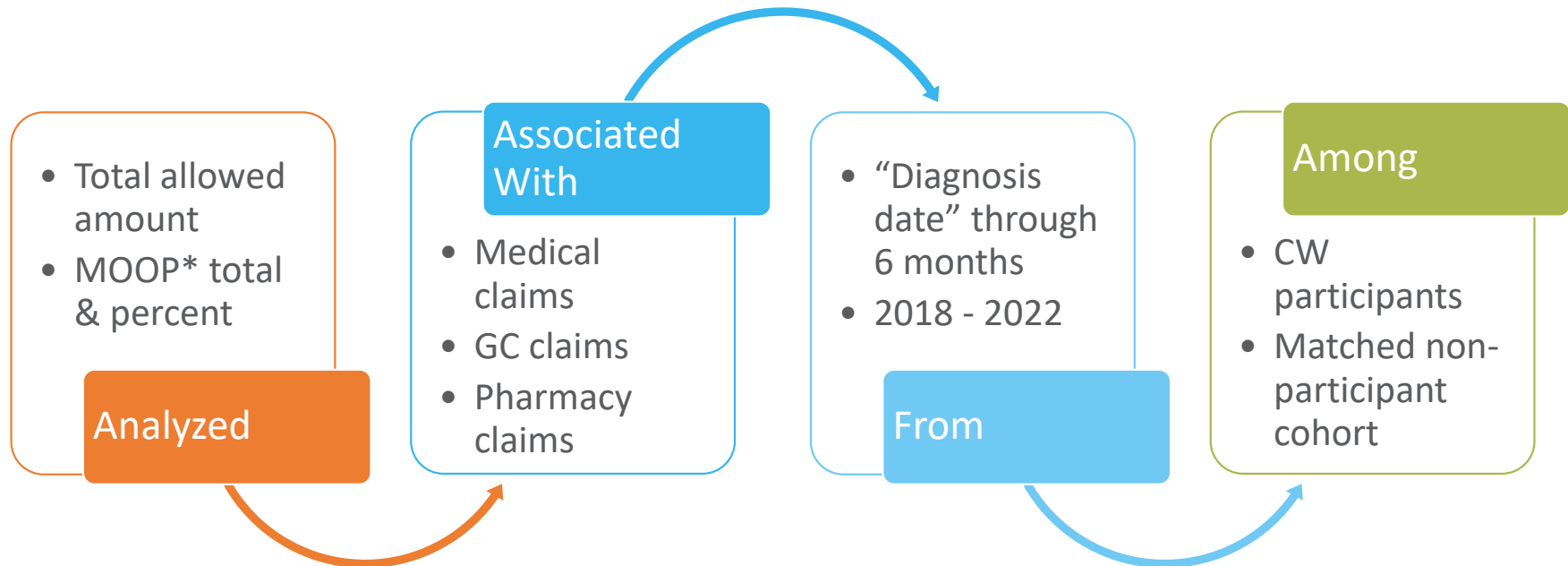
DF1

DF0   1.   Do Carol's Wish enrollees pay a lower proportion of out-of-pocket costs for health care than medically similar under-resourced patients who are not enrolled in Carol's Wish?
2.   Does the distribution of health care costs across responsible parties (provider, payer, member) for program participants differ from non-participants?
Darcy Holladay Ford, 2024-09-11T22:42:25.865

DF1   Maybe we use these questions here.
Darcy Holladay Ford, 2024-09-11T22:42:54.474

VG1 0   Thanks, I think I was using an older version. We shifted the questions a little throughout the project so I tried to reflect that here.
Valerie Garrison, 2024-09-12T14:51:52.587

Evaluation Design

Analyzed
- Total allowed amount
- MOOP* total & percent

Associated With
- Medical claims
- GC claims
- Pharmacy claims

From
- "Diagnosis date" through 6 months
- 2018 - 2022

Among
- CW participants
- Matched non-participant cohort

MOOP = Member-out-of-Pocket 12

Data

- CGCA
  - Participant Finder File
  - Program Assistance records
  - Diagnosis codes
- CO APCD
  - Claims data and spending totals
  - Dual Eligibility
  - Johns Hopkins ACG® System measures (insurance before diagnosis, RUB, Social Needs)

DF2

DF0   Maybe use a Participant list? Finder Files is our term.
Darcy Holladay Ford, 2024-09-11T22:44:06.413

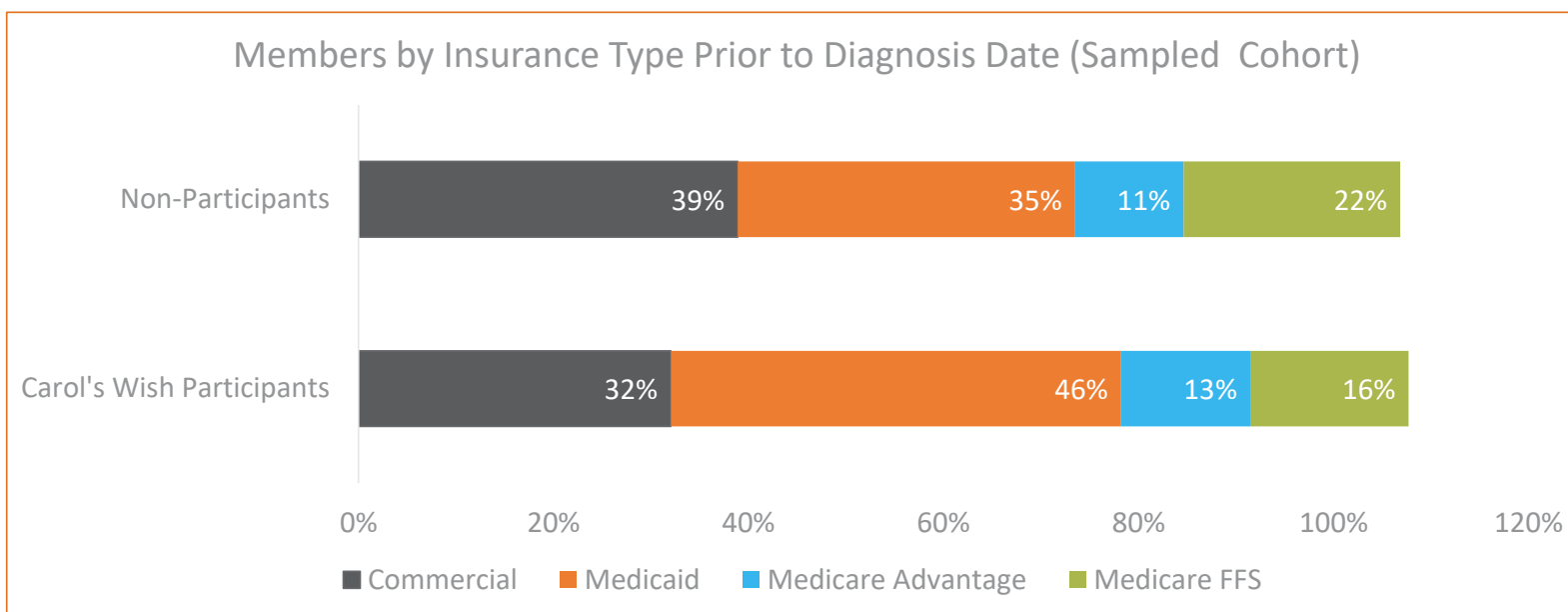**DF1**   Define this and the ACG system.
Darcy Holladay Ford, 2024-09-11T22:44:58.086

DF2   We might also need to talk about the requirement of 11 out of 12 months of insurance coverage for ACG
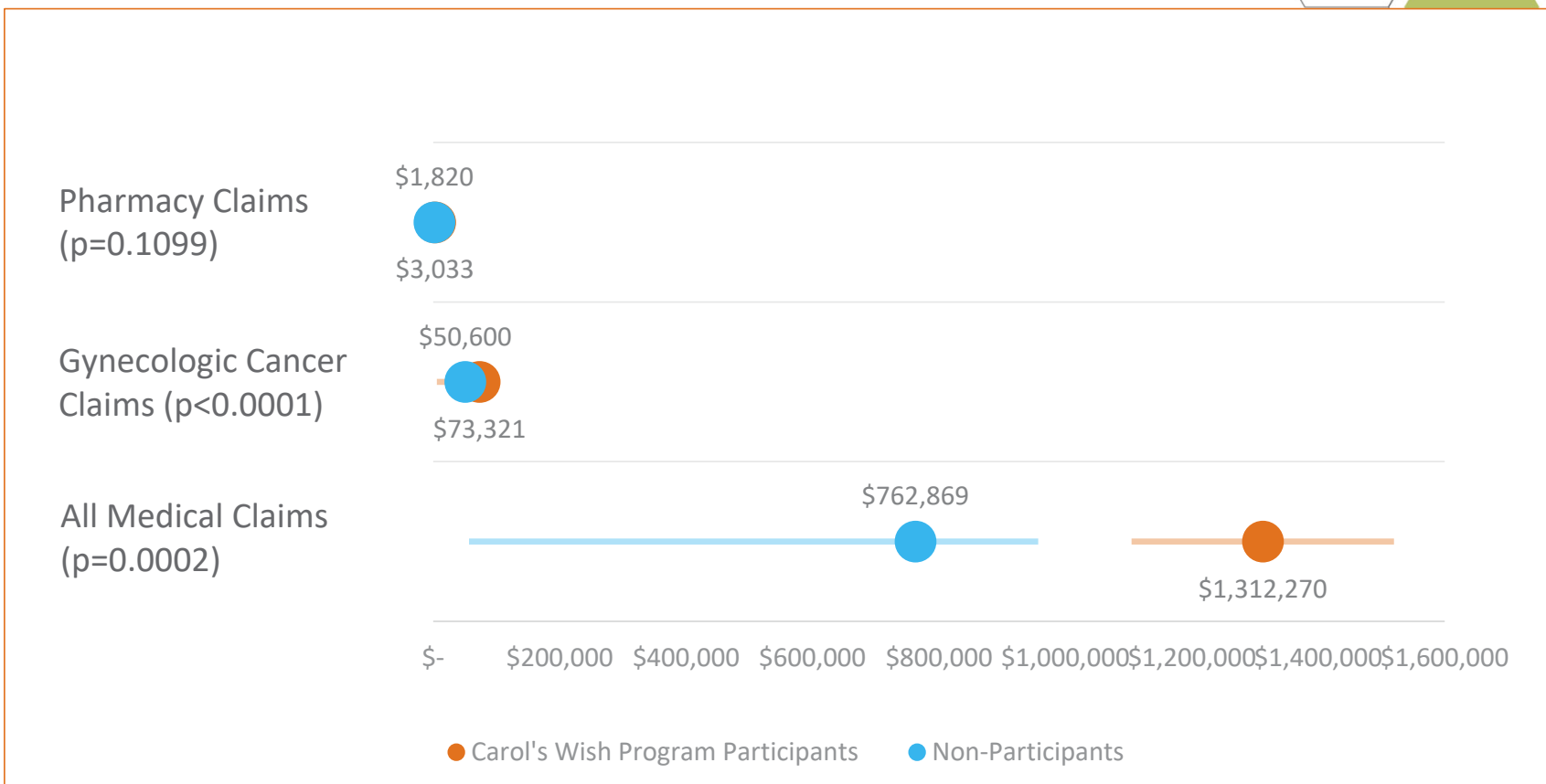Darcy Holladay Ford, 2024-09-11T22:47:29.135

Results

Cohort	Preliminary Population	Met Inclusion Criteria
CW Participants	628	234
Non-Participants	12,544	234

Members by Insurance Type Prior to Diagnosis Date (Sampled Cohort)

Cohort	Commercial	Medicaid	Medicare Advantage	Medicare FFS
Non-Participants	39%	35%	11%	22%
Carol's Wish Participants	32%	46%	13%	16%

■ Commercial ■ Medicaid ■ Medicare Advantage ■ Medicare FFS

T-Test: Allowed Amount (Total Spending)

DF0

Pharmacy Claims (p=0.1099)
$1,820
$3,033

Gynecologic Cancer Claims (p<0.0001)
$50,600
$73,321

All Medical Claims (p=0.0002)
$762,869
$1,312,270

$- $200,000 $400,000 $600,000 $800,000 $1,000,000 $1,200,000 $1,400,000 $1,600,000

● Carol's Wish Program Participants   ● Non-Participants

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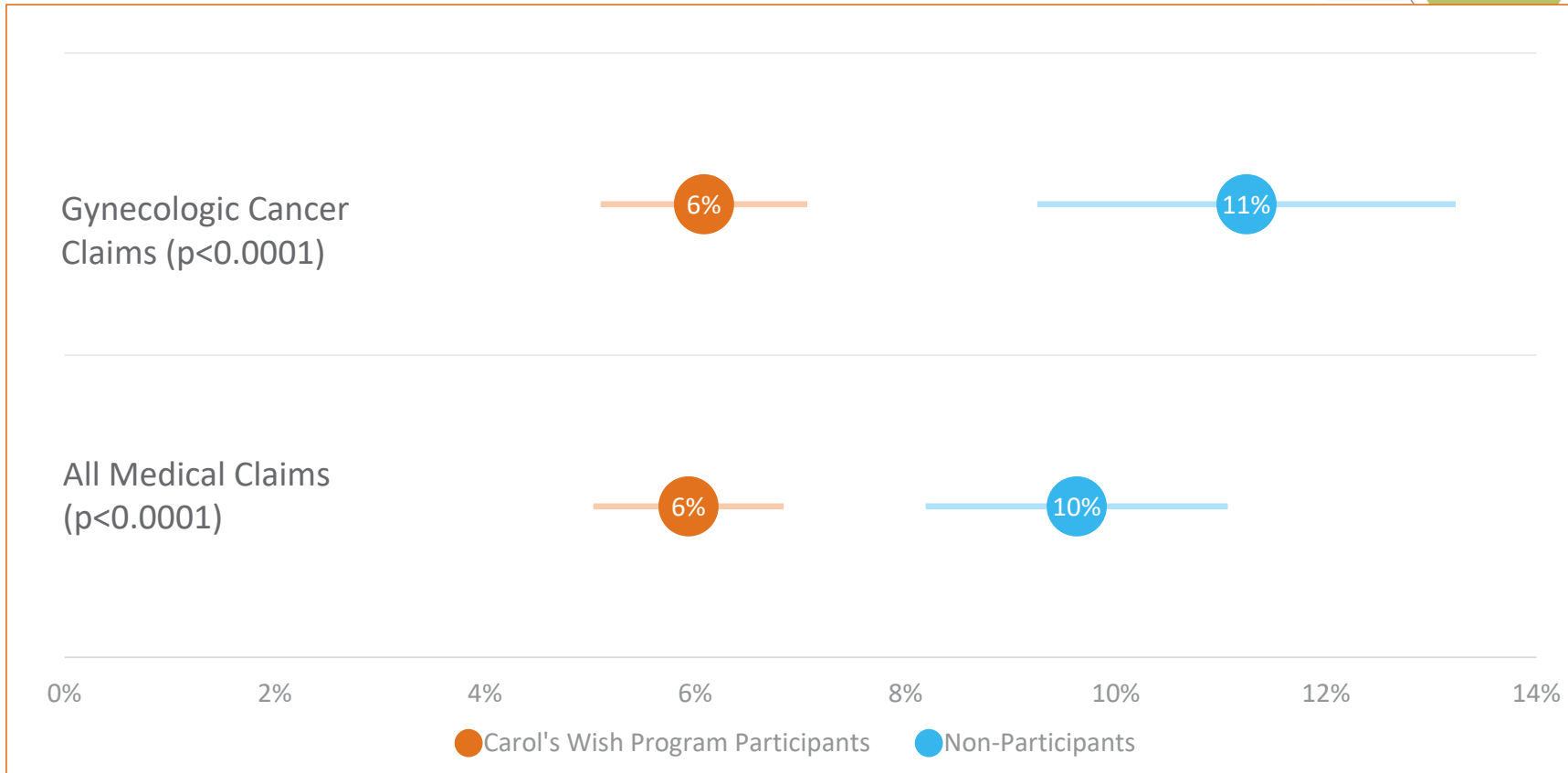
DF0   Might need to define what allowed amount is

Darcy Holladay Ford, 2024-09-11T22:46:05.930

T-Tests: Member Out-of-Pocket $

Pharmacy Claims (p=0.5130)
$244
$177

Gynecologic Cancer Claims (p=0.2862)
$14,712
$18,408

All Medical Claims (p=0.0160)
$185,085
$380,019

$- · $100,000 · $200,000 · $300,000 · $400,000 · $500,000

● Carol's Wish Program Participants ● Non-Participants

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T-Tests: Member Out-of-Pocket %

Gynecologic Cancer Claims (p<0.0001): Carol's Wish Program Participants 6%, Non-Participants 11%

All Medical Claims (p<0.0001): Carol's Wish Program Participants 6%, Non-Participants 10%

Chart axis: 0% 2% 4% 6% 8% 10% 12% 14%

● Carol's Wish Program Participants   ● Non-Participants

Regression: Medical Claims Spending

Parameter	Estimated Impact of Carol's Wish	Standard Error	P-Value	Adjusted R-Squared
PMPP Allowed Amount	$611,789	$140,165	<0.0001	0.10
PMPP MOOP Total	$30,131	$9,044	0.0009	0.10
PMPP MOOP %	-2.4 percentage points	0.7	0.0012	0.32

Per-Member-Per-Period (PMPP) values are adjusted for insurance eligibility over 6 months

Regression: GC Claims Spending

Parameter	Estimated Impact of Carol's Wish	Standard Error	P-Value	Adjusted R-Squared
PMPP Allowed Amount	$223,720	$46,837	<0.0001	0.09
PMPP MOOP Total	$6,182	$3,386	0.0685	0.07
PMPP MOOP %	-3.8 percentage points	1.0	0.0002	0.22

Per-Member-Per-Period (PMPP) values are adjusted for insurance eligibility over 6 months

DF0

Summary of Findings

- Total medical expenditures and medical costs associated with GC are higher for program participants from diagnosis through 6 months
  - Total MOOP expenditures were higher for CW participants
  - MOOP spending for GC claims was comparable between groups
- Despite higher allowed amount and MOOP totals, participants:
  - Paid 2.4 percentage points less out-of-pocket for all medical claims
  - Paid 3.8 percentage points less out-of-pocket for GC claims
- There was no significant difference for pharmacy claims between groups
- Claims-based analysis and supplemental information demonstrate a clear financial wellness benefit for participants

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DF0   I like this. Nice summary.
            Darcy Holladay Ford, 2024-09-11T22:49:27.277

Supplemental Analysis: Utilization Rate

- Could the higher total and MOOP spending among participants reflect higher overall utilization (access)?
    - T-test comparing mean PMPP visits from diagnosis through 6 months

	Non-Participants		CW Participants
All Lines of Business	42.7	<	75.5
Medicaid Only	46.3	<	82.9

    - Yes, consider investigating further

Data Challenges

- No field for Dx date
- SES data unavailable
- ACG System
  - Annual
  - Continuous eligibility
- Timing of enrollment in CW
- Recurring cases

Project Solutions

- Proxy measures
  - Diagnosis date
  - Socioeconomic status
- ACG System
  - Extended analytic timeline
  - Applied most recent
  - Supplemented with CO APCD
- Extended data extract to 1 year before analytic timeline

Limitations

- Small sample size
  - Finder file to locate CGCA cohort in CO APCD (63% match)
  - ACG system gynecologic cancer flag only captures 3 of 5 GC types
- Difficult to capture full extent of insurance optimization impact
  - No information for uninsured individuals & other health plan types
  - Demographic information limited

DF1

DF0

Opportunities

DF2 Further explore member utilization trends (supplemental analysis)
- Timing
- Service Type
- Chronic condition management
- Family utilization

- Extend evaluation timeline*
- Pre-post insurance enrollment, benefit levels

DF0 incomplete? Are we talking about race and ethnicity?
Darcy Holladay Ford, 2024-09-12T17:37:59.819

DF1 Captured 75% of the covered lives.
Darcy Holladay Ford, 2024-09-12T17:39:22.930

DF2 Small sample size< we don't know if there are systematic differences between those we captured and those we didn't. Limitation is the gernalizability of the finding to the CW population and GC pop.
Darcy Holladay Ford, 2024-09-12T17:41:55.558

Limitations

- Cannot attribute outcomes to specific behavior or assistance types
- Unable to assess choice to continue with cancer treatment within the scope of this analysis
  - Higher total costs could reflect increased likelihood of treatment
  - More CW participants had a cancer treatment flag than non-participants* DF0

Opportunities

- Supplemental evaluation(s)
  - Integrate survey responses
  - Qualitative analysis
- Explore possibilities for comparing cancer treatment decisions

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DF0   We didn't plan on answering these questions, and are not a limitation of our data or in our ability to answer our evaluation questions. These seem to be all opportunities for further exploration.

Darcy Holladay Ford, 2024-09-12T17:36:44.817

Discussion

Factors interact to influence total spending

- Higher social needs (SN)
  - More likely to qualify for benefits that lower MOOP
- Higher RUB
  - Poorer health
  - Higher utilization
  - Higher total & MOOP costs
- High RUB * High SN = Higher MOOP

Discussion

- CW participants had higher spending and utilization rates between diagnosis and 6 months
  - Trend held for Medicaid members
- CGCA prioritizes services for Coloradans facing financial hardship
  - Before matching, CW participants had more social needs listed and were more likely to have Medicaid before diagnosis

Discussion

- Staff & Participant Feedback
  - Insurance enrollment/optimization helps families access care
  - Supplemental financial supports help participants
    - Bridge gaps in coverage
    - Manage dual-deductible impacts
    - Travel for care
    - Cover copays
  - Reduces burden of finance-based decision-making
    - Treatment | vs | Homeownership / College / etc…

What's Next? VG0

- Leverage results to sustain & expand CW program
- Revisit proposed opportunities

VG0   Patrice would you like to do this part? Anything to add here?
            Valerie Garrison, 2024-09-10T21:19:54.903