

CCO IMPACTS: MEMBER REPORTED OUTCOMES

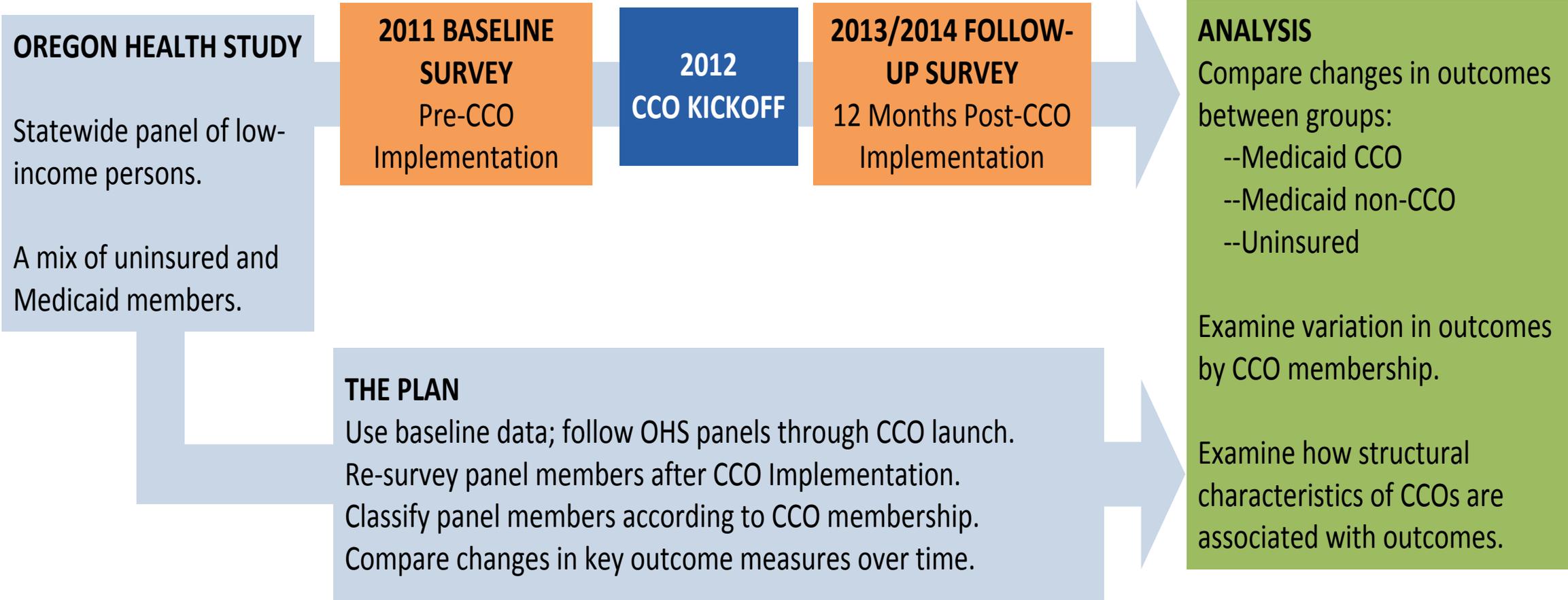
**Following a Longitudinal Panel of Low-Income
Oregonians Through CCO Implementation:**

Are there any Early Signs of an Impact?

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RESEARCH DESIGN

OVERVIEW: Leverage a large, existing statewide survey panel of Medicaid members (from the Oregon Health Study) to assess the impact of CCOs on member-reported outcomes.



KEY OUTCOME MEASURES

We selected two key markers for each of six outcome domains:

HEALTH CARE ACCESS

- Percent who reported getting all needed medical care
- Percent who reported getting all needed mental health care

QUALITY OF CARE

- Percent rating care as good, very good, or excellent.
- Percent with one “personal” doctor or provider.

UTILIZATION OF CARE

- Percent with 1+ prim care visit (past 6 months)
- Percent with 1+ED visits (past 6 months)

SCREENING

- Percent with cholesterol test in past year
- Percent females with pap test in past year

HEALTH OUTCOMES

- Percent rating health good/very good/excellent
- Percent screening positive for current depression (Ph-Q2)

CARE COORDINATION

- Percent who got all needed help with food/housing/transportation.
- Percent reporting care was mostly/always well coordinated (vs never/rarely/sometimes)

COMPARISON GROUPS

We followed our active panel through CCO implementation, then sorted respondents according to their coverage status at the time of our follow-up survey.

STUDY GROUP DESIGNATION

We had 8,864 eligible responses to our follow-up survey, which occurred about 12 months after CCOs launched (48% response rate).

Cases were sorted according to coverage status at the time of the follow-up. Together, they comprise our study group.

3,415 CCO MEMBERS

Panel members who were in Medicaid and assigned to a CCO.

294 NON-CCO MEDICAID MEMBERS

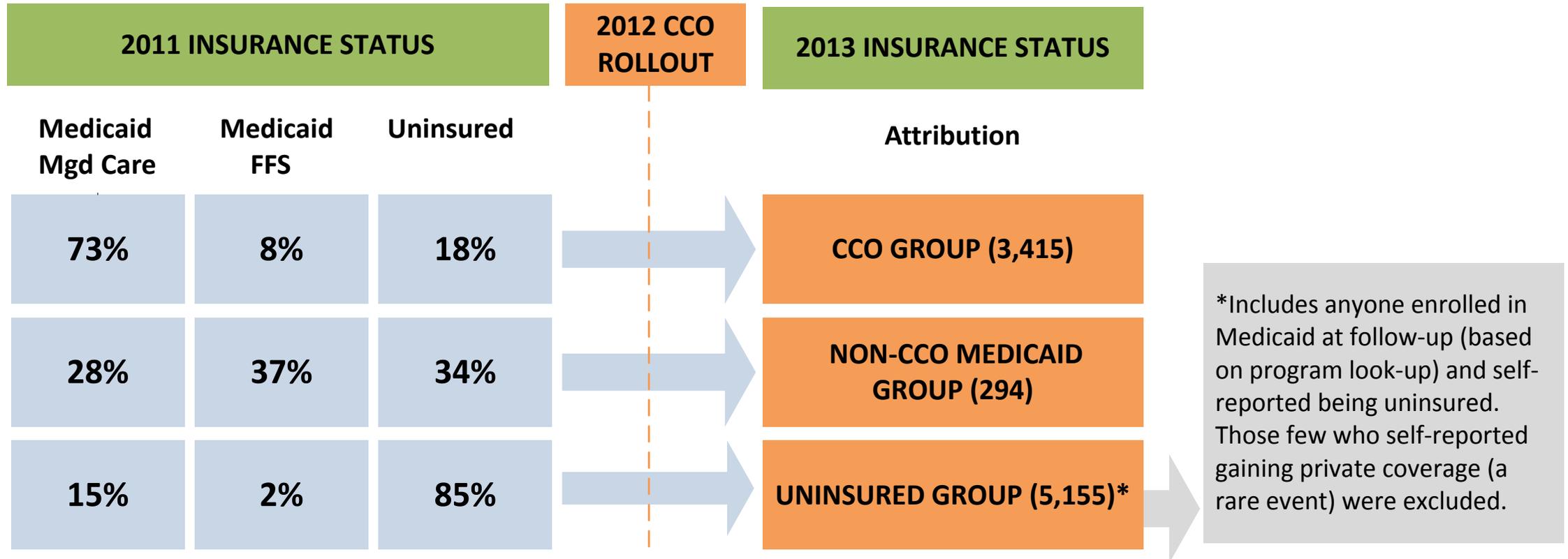
Panel members who were in Medicaid but not assigned to a CCO (FFS Medicaid Members).

5,155 UNINSURED MEMBERS

Panel members who never made it into Medicaid; they provide us a “baseline” against which to measure effects.

Comparing FFS Medicaid to uninsured lets us see the “basic” impact of coverage. Comparing CCO to uninsured lets us see any “additional” effect of CCOs.

DYNAMIC COVERAGE STATUS



Bottom Line: Most of our CCO Group were already in Medicaid at baseline, so any impacts of gaining initial coverage are mostly baked in. This is less true for our FFS group because more of them were uninsured at baseline, so we have to adjust for this or the FFS group will get more credit for “coverage gain” effects.

ANALYTIC FRAMEWORK

We used GEE (Generalized Estimating Equations) to assess the impact of being in the CCO group on each outcome over time. GEE is a form of regression suitable for assessing longitudinal data with multiple measurements taken over time for each individual.

INDEPENDENT VARIABLES

GROUP

Whether a case is in the CCO group, FFS group, or uninsured group.

This term tells us if there are systematic (or “selection”) differences between people who got into our CCO group and those who didn’t.

TIME

Whether a given measurement is from baseline or follow-up.

This term tells us if there are differences over time independent of group membership— for instance, if everyone just tends to do better over time.

★ GROUP*TIME (INTERACTION TERM)

The interaction effect of being in a given group on outcomes over time.

This term tells us if being in our CCO group leads to better outcomes over time. **THIS IS OUR PRIMARY MEASURE OF CCO IMPACTS.**

OTHER COVARIATES: In addition to the above “main effects, our models also accounted for the following control variables: age, gender, education, race/ethnicity, urban/rural, baseline insurance status, and baseline chronic illness status.

DEPENDENT VARIABLES

ACCESS TO CARE

UTILIZATION

QUALITY

SCREENINGS

HEALTH OUTCOMES

CARE COORDINATION

RESULTS: ACCESS TO CARE

| Percent receiving all needed medical care | UNADJUSTED RESULTS | | | ADJUSTED RESULTS (Group*Time) | | | |
|---|--------------------|-----------|--------|-------------------------------|---------|------------|---------|
| | | | | CCO/FFS vs Uninsured | | CCO vs FFS | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 43% | 77% | +34% | 4.96* | .001 | 1.77* | .01 |
| Medicaid FFS Group | 47% | 77% | +30% | 2.81* | .001 | Referent | |
| Uninsured Group | 37% | 47% | +10% | Referent | | n/a | |

| Percent receiving all needed mental health care | UNADJUSTED RESULTS | | | ADJUSTED RESULTS (Group*Time) | | | |
|---|--------------------|-----------|--------|-------------------------------|---------|------------|---------|
| | | | | CCO/FFS vs Uninsured | | CCO vs FFS | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 24% | 53% | +29% | 3.62* | .001 | 1.12 | 0.75 |
| Medicaid FFS Group | 24% | 49% | +25% | 3.24* | .006 | Referent | |
| Uninsured Group | 21% | 24% | +3% | Referent | | n/a | |

KEY TAKEAWAYS

- Everyone who got into Medicaid did better over time than those who didn't (effect of becoming insured).
- After adjustments, CCO members saw better improvements in medical care access than non-CCO Medicaid.
- CCO members also saw slightly better improvements in mental health access than FFS, but not significant.

RESULTS: QUALITY OF CARE

| Percent rating their care as excellent, very good, or good | UNADJUSTED RESULTS | | | ADJUSTED RESULTS (Group*Time) | | | |
|--|--------------------|-----------|--------|-------------------------------|---------|------------|---------|
| | Baseline | Follow-Up | Change | CCO/FFS vs Uninsured | | CCO vs FFS | |
| | | | | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 70% | 84% | +14% | 2.20* | .001 | 1.53* | 0.06 |
| Medicaid FFS Group | 72% | 83% | +11% | 1.44 | 0.10 | Referent | |
| Uninsured Group | 69% | 74% | +5% | Referent | | n/a | |

| Percent who are connected to a "personal care provider" | UNADJUSTED RESULTS | | | ADJUSTED RESULTS (Group*Time) | | | |
|---|--------------------|-----------|--------|-------------------------------|---------|------------|---------|
| | Baseline | Follow-Up | Change | CCO/FFS vs Uninsured | | CCO vs FFS | |
| | | | | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 56% | 81% | +25% | 4.09* | .001 | 2.01* | .002 |
| Medicaid FFS Group | 60% | 75% | +15% | 2.03* | .001 | Referent | |
| Uninsured Group | 44% | 50% | +6% | Referent | | n/a | |

KEY TAKEAWAYS

- Again, everyone on Medicaid did better over time than those who weren't.
- After adjustments, CCO members saw better quality improvements than non-CCO Medicaid members.
- CCO members also saw better improvements in connection to a personal physician

RESULTS: UTILIZATION PATTERNS

| Percent with at least one primary care visit in last 6 months | <i>UNADJUSTED RESULTS</i> | | | ADJUSTED RESULTS (Group*Time) | | | |
|---|---------------------------|------------------|---------------|--------------------------------------|----------------|-------------------|----------------|
| | | | | <i>CCO/FFS vs Uninsured</i> | | <i>CCO vs FFS</i> | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 64% | 81% | +17% | 3.16* | .001 | 1.49* | 0.06 |
| Medicaid FFS Group | 72% | 80% | +8% | 2.12* | .004 | Referent | |
| Uninsured Group | 57% | 57% | 0% | Referent | | | |

| Percent with at least one ED visit in last 6 months | <i>UNADJUSTED RESULTS</i> | | | ADJUSTED RESULTS (Group*Time) | | | |
|---|---------------------------|------------------|---------------|--------------------------------------|----------------|-------------------|----------------|
| | | | | <i>CCO/FFS vs Uninsured</i> | | <i>CCO vs FFS</i> | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 28% | 24% | -4% | 1.17* | .045 | 0.84 | 0.325 |
| Medicaid FFS Group | 31% | 29% | -2% | 1.39* | .067 | Referent | |
| Uninsured Group | 25% | 20% | -5% | Referent | | | |

KEY TAKEAWAYS

- After adjustments, CCO members saw better improvements in primary care connectedness.
- ED use went down for everyone, but the decrease was largest among CCO and uninsured members.
- CCOs did better in terms of ED reduction than non-CCO Medicaid, but the difference was not significant.

RESULTS: PREVENTIVE SCREENINGS

| Percent with a cholesterol test in the last 12 months | <i>UNADJUSTED RESULTS</i> | | | ADJUSTED RESULTS (Group*Time) | | | |
|---|---------------------------|------------------|---------------|--------------------------------------|----------------|-------------------|----------------|
| | | | | <i>CCO/FFS vs Uninsured</i> | | <i>CCO vs FFS</i> | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 36% | 52% | +16% | 2.10* | .001 | 0.96 | 0.852 |
| Medicaid FFS Group | 38% | 61% | +23% | 2.18* | .001 | Referent | |
| Uninsured Group | 29% | 35% | +6% | Referent | | | |

| Percent females with a pap test in the last 12 months | <i>UNADJUSTED RESULTS</i> | | | ADJUSTED RESULTS (Group*Time) | | | |
|---|---------------------------|------------------|---------------|--------------------------------------|----------------|-------------------|----------------|
| | | | | <i>CCO/FFS vs Uninsured</i> | | <i>CCO vs FFS</i> | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 39% | 55% | +16% | 2.21* | .001 | 1.26 | 0.43 |
| Medicaid FFS Group | 30% | 45% | +15% | 1.75* | .04 | Referent | |
| Uninsured Group | 31% | 37% | +6% | Referent | | | |

KEY TAKEAWAYS

- Preventive screenings saw better improvements for all Medicaid members.
- CCO members did consistently better on these (and several other) preventive measures, but results were not statistically significant.

RESULTS: CARE COORDINATION

| Percent who got all needed help with food/housing/transportation | UNADJUSTED RESULTS | | | ADJUSTED RESULTS (Group*Time) | | | |
|--|--------------------|-----------|--------|-------------------------------|---------|------------|---------|
| | | | | CCO/FFS vs Uninsured | | CCO vs FFS | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | n/a | 57% | n/a | 2.07* | .001 | 2.28* | .04 |
| Medicaid FFS Group | n/a | 39% | n/a | 0.91 | .825 | Referent | |
| Uninsured Group | n/a | 39% | n/a | Referent | | | |

| Percent saying care is mostly or always well coordinated | UNADJUSTED RESULTS | | | ADJUSTED RESULTS (Group*Time) | | | |
|--|--------------------|-----------|--------|-------------------------------|---------|------------|---------|
| | | | | CCO/FFS vs Uninsured | | CCO vs FFS | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | n/a | 74% | n/a | 1.75* | .001 | 0.99 | .979 |
| Medicaid FFS Group | n/a | 82% | n/a | 1.77 | .243 | Referent | |
| Uninsured Group | n/a | 61% | n/a | Referent | | | |

KEY TAKEAWAYS

- CCO members did significantly better when they needed “social determinants of health” assistance.
- CCO members also did significantly better than the uninsured on care coordination. The same wasn’t true for FFS Medicaid, although this could be an issue of low statistical power.

RESULTS: HEALTH OUTCOMES

| Percent rating health good, very good, or excellent | <i>UNADJUSTED RESULTS</i> | | | <i>ADJUSTED RESULTS (Group*Time)</i> | | | |
|---|---------------------------|------------------|---------------|--------------------------------------|----------------|-------------------|----------------|
| | | | | <i>CCO/FFS vs Uninsured</i> | | <i>CCO vs FFS</i> | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 58% | 59% | +1% | 1.17* | .019 | 1.09 | .673 |
| Medicaid FFS Group | 73% | 70% | -3% | 1.08 | .704 | Referent | |
| Uninsured Group | 76% | 73% | -3% | Referent | | | |

| Percent Screening positive for current depression (Ph-Q2) | <i>UNADJUSTED RESULTS</i> | | | <i>ADJUSTED RESULTS (Group*Time)</i> | | | |
|---|---------------------------|------------------|---------------|--------------------------------------|----------------|-------------------|----------------|
| | | | | <i>CCO/FFS vs Uninsured</i> | | <i>CCO vs FFS</i> | |
| | Baseline | Follow-Up | Change | Odds Ratio | P-Value | Odds Ratio | P-Value |
| Medicaid CCO Group | 36% | 32% | -4% | 0.94 | .330 | 1.13 | .467 |
| Medicaid FFS Group | 45% | 36% | -9% | 0.83 | .259 | Referent | |
| Uninsured Group | 29% | 25% | -4% | Referent | | | |

KEY TAKEAWAYS

- In terms of general health, CCO members did significantly better over time than uninsured over time.
- There was no significant difference with FFS group despite a comparable decline in scores, which may speak to low power for this comparison. There were no evident impacts on current depression.
- It may be early yet for health outcomes: data were collected after just one year of CCO implementation.

KEY FINDINGS

THE BOTTOM LINE ON EACH OUTCOME DOMAIN

HEALTH CARE ACCESS

CCOs were associated with better improvements in access to medical care. All types of Medicaid were associated with huge improvements in mental health access.

QUALITY OF CARE

CCOs were associated with better improvements in ratings of care quality. CCOs were also associated with better connections to personal care providers.

UTILIZATION OF CARE

CCOs were associated with more frequent primary care use, a marker of prim care connection. ED visits went down for CCOs, but they also went down for everyone else.

PREVENTIVE SCREENINGS

Medicaid members did much better on screenings than the uninsured, but CCOs didn't see any bigger improvements than general FFS Medicaid.

HEALTH OUTCOMES

CCOs were associated with better improvements in self-reported health compared to the uninsured, which wasn't the case among FFS Medicaid.

CARE COORDINATION

CCOs did significantly better on "social determinants of health" assistance than non-CCOs, and did much better on care coordination than the uninsured.

CONCLUSIONS

EVIDENCE OF IMPACT

We see some early signs of overall CCO impacts on access to care, primary care connectivity, quality of care, and care coordination. These are key early goals for CCOs on the way to larger delivery system transformation. Our measures align well with administrative data suggesting similar early signs of improvements in these same areas.

OTHER POINTS OF INTEREST

Other state data have suggested a decline in ED visits. We do see evidence of a decline in our panel, but the decline is not specific to CCOs – it's also present in uninsured members.

We did not find evidence of a CCO-specific increase in preventive screenings among adult members, but Medicaid *was* associated with better screening rates overall.

NEXT STEPS for SURVEY ANALYSIS

We will assess variation in these outcomes by CCO, and by CCOs' organizational characteristics according to the typology developed through Dr. Rissi's work. We will attempt to discern whether certain *types* of CCOs are experiencing more success than others.