



maryland
health services
cost review commission

Total Cost of Care Workgroup Meeting

November 20, 2024

Agenda

- AHEAD Update
- VBCI Tool Update
- Addition of Non-Claims-Based Payments (NCBP) to MPA Target
- MPA/CTI Areas of Change
 - Background
 - Comment Letters Recap
 - Stop-Gain
 - Offset
 - Areas of Priority for 2026 MPA
- Benchmarking
- Next Steps & Upcoming Meetings



AHEAD Update

AHEAD Update

- AHEAD State Agreement Signed on 11/1/2024
 - [Press Release](#)
 - [State Agreement](#)
 - [State Agreement Summary](#)
 - [State Agreement Summary Meeting Recording](#)



VBCI Tool Update

Value Based Care Insights (VBCI) Released 10/22/2024

- Access to VBCI is through the HIE Portal for credentialed users:
<https://portal.crisphealth.org>
- [VBCI Overview page](#) on CRISP includes all supporting information and a training webinar recording.
- Please reach out to CRS Support at VBCI-support@crisphealth.org with any questions.

Addition of Non-Claims-Based Payments to MPA Target

Adding NCBP to MPA Targets

Calendar Year	Target Used	Revised Target	\$ Impact
2020	-3.38%	-2.99%	\$3.7 M
2021	8.96%	9.18%	\$5.5 M
2022	2.84%	3.25%	\$3.2 M
2023	5.36%	5.53%	\$9.7M
2024	TBD	TBD	TBD
Total through 2023	14.1%	15.4%	\$22.2 M

- Change for 2020 to 2024 approved by the Commission on 11/13.
- Submitted request to CMS, waiting on approval.
- If approved adjustment will be targeted for 12/15/24-12/31/24 implementation.
- Plan to include change on a go-forward basis in the 2025 MPA recommendation.



MPA/CTI Areas of Change

CTI Offset Background

- Under CTIs all scored savings that are paid out are offset by reducing payments to hospitals by an equal amount on a pro rata basis based on Medicare FFS spending.
- Negative savings after the offset are limited to 2.5% of Medicare FFS payments with all eliminated savings shared back across all facilities in proportion to Medicare FFS payments.
- Offset was intended to:
 - Provide value for hospitals generating care transformation savings while maintaining savings to CMS
 - Prevent a free rider syndrome by “taxing” hospitals that choose not to participate in care redesign or are ineffective
 - Incent participation in care redesign by encouraging participation through limited downside risk and minimizing administrative barriers
- In addition to CTI payments hospitals benefit from CTI initiatives that reduce hospital utilization via the GBR (some of which accrues to hospitals other than the CTI owner).

But some stakeholders have raised a concern that the offset and the improvement only nature of the CTIs offset disproportionately “taxes” hospitals with lower opportunity.

Stop Gain Background

- Minimum savings rates are established to protect against statistical volatility driving savings, but externalities can create positive savings that are unrelated to hospital care transformation initiatives.
- In Y2 results, 5 highest savings CTIs drove almost 50% of total gross positive savings.
- Implementing a Stop Gain would mitigate against outlier gains driving program outcomes.
- Standard for outlier gains is likely lower for larger CTIs as:
 - Implementing “home run” interventions is more feasible for a tightly targeted population.
 - Materially changing total costs becomes more challenging as more diverse costs and beneficiaries are captured within the target population.

Comment Letter Recap

- **LifeBridge Health**

- Recommends instituting a stop gain provision on CTIs that is the greater of 10% or 3x the MSR.
- Concerned with offset approach of scaling either scenario based on MPA TCOC methodology – Encourages avoiding changes to the offset calculation until the impact can be modeled using results from the most recent performance period.
- Supportive of HSCRC adopting policy changes on a prospective basis.

- **MedStar Health**

- Supportive of a stop gain adjustment to CTIs, but savings in excess of 10% should be phased out rather than removed (i.e. drop earned savings to 50% for each dollar saved from 10%-20% and zero out savings above 20%).
- Does not support an attainment adjustment to CTIs.
- Supports a revision to the MPA attribution methodology that more closely links hospitals to the patients they serve – Supports a revision from a pure geographic based attribution methodology to one that attributes first based on MDPCP attribution, and then geographic attribution.

Comment Letter Recap

- **UMMS:**
 - Opposes the institution of a 10% stop gain on individual CTIs and suggests that stop-gain standards should not fall below other CMS standards and programs of 20-25%.
 - Suggests that if either attainment approach is incorporated, the proposed quintiles should be further investigated within the context of whether opportunity in TCOC enables savings performance in the policy and is a fair downside risk limit.
 - Supports limiting CTI policy changes during active and enrolled performance years and opposes retroactive or midyear implementation of policy changes in the CTI policy.
- **Adventist HealthCare**
 - Recommends HSCRC to consider alternative markets for the stop gain provisions (Ex: pairing a dollar threshold with the percentage cap could create a more balanced approach that accounts for varying hospital capacities and ensures smaller hospitals are not unduly penalized).
 - Recommends HSCRC conducts an analysis of the overlap between MPA and CTI attributed lives and episode costs to identify and address inequities - In favor of a blended approach using the MPA tier.
 - Recommends HSCRC to consider policy adjustments that account for the unique constraints faced by smaller hospitals (Ex: targeted adjustments or supplemental considerations).

Options Outlined in Prior Meeting

- Stop Gain – Implemented at the individual CTI Level
 1. No Change
 2. Flat 10%, implemented at the individual CTI Level
 3. **Greater of 10% or 3x minimum savings rate (MSR), implemented at the individual CTI Level – Staff Bias**
- Offset
 1. No Change
 2. Tier both Offset and Stop Loss
 - Offset and Stop Loss 50:50 current straight-line approach and MPA-based tiers
 3. **Tier only Stop Loss – Staff Bias**
 - Stop Loss 50:50 current straight-line approach and MPA-based tiers

Impact of Staff Bias Stop Gain by CTI Size

CTI Total Spend	Gross Savings %	10% / 3x Stop Gain (\$23.2 M Impact)		15% / 5x Stop Gain (\$9.1 M Impact)	
		Stop Gain as a % of Savings	% of Total Stop Gain	Stop Gain as a % of Savings	% of Total Stop Gain
\$0 to 250K	31.5%	44.8%	0.9%	37.8%	2.0%
\$251K to \$1.0 M	20.2%	55.8%	5.8%	37.1%	9.7%
\$1.0M to \$2.5.0 M	11.4%	13.6%	2.2%	4.9%	2.1%
\$2.5 M to \$10 M	9.3%	19.2%	7.1%	3.5%	3.3%
\$10.0 M to \$100.0 M	7.2%	15.6%	48.4%	10.5%	83.0%
> \$100 M	5.1%	7.2%	35.6%	0.0%	0.0%
Total	6.0%	11.5%	100.0%	4.5%	100.0%

- Commenters expressed concern about impact of Stop Gain on small CTIs.
- Small CTIs are disproportionately impacted although it is a small share of total impact.
- Increasing Stop Gain reduces the total impact but still hits small CTIs hard.
- Option: Exempt smallest CTIs from the Stop Gain

Impact of Staff Bias Stop Gain and Offset Option - By MPA Tier¹

\$ In Millions		As Is	Staff Bias	Difference	
MPA Tier ¹	CTI Y2 Gross Save ²	CTI Y2 Net Save ²	CTI Y2 Net Save ²	Improvement (Deterioration) in \$ Impact	Improvement (Deterioration) as a % of MC FFS Spend
1	\$31.3	-\$0.8	\$7.2	\$8.0	1.00%
2	\$60.8	\$32.1	\$27.3	-\$4.8	-0.75%
3	\$47.0	-\$5.6	-\$3.6	\$2.0	0.16%
4	\$39.9	-\$11.9	-\$15.7	-\$3.9	-0.32%
5	\$15.5	-\$13.9	-\$15.2	-\$1.3	-0.20%

- Commenters noted that savings were higher, in lower MPA tiers, suggesting effective opportunity may not correlate with costs versus benchmark but:
 - Sample size is small
 - Tiers are measured versus benchmark average, all areas have some opportunity
- Impact of Stop Gain and offset changes is most negative to higher savings area (Tier 2)

Net Savings reflects the impact of stop gain, stop loss and offset provisions, statewide net savings will = 0%

1. MPA tiers correlate to the % over benchmark as measured in HSCRC benchmarking with lower tiers being lower cost versus benchmark.
 2. Gross savings reflect scored savings under CTI methodology before Stop Gain, Offset or Stop Loss. Net save reflects values after these adjustments. Amounts are not impacted by the proposed changes.

Impact of Staff Bias Stop Gain and Offset Option - By System¹

\$ In Millions		As Is		Staff Bias	Difference		\$ Weighted MPA Tier
	CTI Y2 Gross Save ²	CTI Y2 Net Save ² %	CTI Y2 Net Save ² \$	CTI Y2 Net Save ² %	Increase (Decrease) % Pts	Increase (Decrease) \$ M	
1	8.9%	4.3%	\$48.3	3.5%	-0.8%	-\$8.9	3.3
2	1.8%	-2.9%	-\$11.7	-3.0%	-0.2%	-\$0.8	4.6
3	0.7%	-2.9%	-\$24.3	-2.7%	0.2%	\$1.8	2.8
4	5.7%	1.4%	\$8.7	1.5%	0.1%	\$0.9	3.6
5	2.2%	-2.4%	-\$2.3	-1.8%	0.6%	\$0.6	1.7
6	1.0%	-2.5%	-\$5.5	-1.8%	0.8%	\$1.6	1.4
7	5.5%	0.8%	\$2.1	1.4%	0.6%	\$1.4	1.0
8	2.7%	-1.6%	-\$15.4	-1.2%	0.3%	\$3.4	3.1

- System amounts are shown as a % of hospital Medicare FFS spending to show relative impact
- Material impact is on a single system.

1. System names are masked, independent hospitals are treated as a single system.
 2. Gross savings reflect scored savings under CTI methodology before Stop Gain, Offset or Stop Loss. Net save reflects values after these adjustments. Amounts are not impacted by the proposed changes.

Impact of **Alternate** Stop Gain and Staff Bias Offset Option¹

As a % of MC FFS Spend		As Is		Staff Bias	Difference		\$ Weighted MPA Tier
	CTI Y2 Gross Save ²	CTI Y2 Net Save ² %	CTI Y2 Net Save ² \$	CTI Y2 Net Save ² %	Increase (Decrease) % Pts	Increase (Decrease) \$ M	
1	8.9%	4.3%	\$48.3	3.9%	-0.4%	-\$4.0	3.3
2	1.8%	-2.9%	-\$11.7	-3.3%	-0.4%	-\$1.7	4.6
3	0.7%	-2.9%	-\$24.3	-2.8%	0.1%	\$1.0	2.8
4	5.7%	1.4%	\$8.7	1.4%	0.0%	-\$0.1	3.6
5	2.2%	-2.4%	-\$2.3	-2.0%	0.5%	\$0.5	1.7
6	1.0%	-2.5%	-\$5.5	-1.7%	0.8%	\$1.7	1.4
7	5.5%	0.8%	\$2.1	1.0%	0.2%	\$0.4	1.0
8	2.7%	-1.6%	-\$15.4	-1.4%	0.2%	\$2.1	3.1

- Table illustrates impact of switching to a 15%/5x Stop Gain
- Impact on strong performing system is diluted.
- Impact would be further diluted if small CTIs were exempted from Stop Gain but impact would be small.

1. System names are masked, independent hospitals are treated as a single system.

2. Gross savings reflect scored savings under CTI methodology before Stop Gain, Offset or Stop Loss. Net save reflects values after these adjustments. Amounts are not impacted by the proposed changes.

Offset and Stop Loss Conclusions

- Staff Bias is to:
 - Implement Tiering on Stop Loss only as modeled in this presentation.
 - Implement Stop Gain at 15%/5x minimum savings rate, exempting CTIs with aggregate target of less than \$1.0 M.
- Considerations
 - Any changes to Stop Gain and Offset will only apply prospectively – CTIs starting 7/1/2025.
 - Staff believe Stop Gain and Offset Tiering are conceptually sound.
 - Stop Gain and Offset tiering may dilute incentives for some participants.
 - Any Stop Gain will tend to penalize aggressive participants.
 - Impact is relatively small under proposed alternatives.
 - Tiering the offset will tend to move \$ out of challenging urban and rural areas.
 - Inefficient care doesn't benefit any beneficiaries.
 - Populations with significant health challenges exist across the State.
 - Outcomes will vary significantly with CTI results, Y2 analysis may not be characteristic of future periods.

Potential for One-Sided Application on a Retroactive Basis

- Staff could propose to CMS applying Offset to Year 2 and Year 3 results on a one-sided, upside only basis.
 - Take advantage of current savings over target position.
 - Impact would be moderate but help hospitals in lower cost TCOC areas.
- Approach could establish a precedent
 - Going forward offset could be redesigned to flex with the State's savings position and move from away from revenue neutral if the State is above or below the AHEAD savings target.
 - Approach would need to balance maintaining incentives and rewarding successful participants and not free riders.
 - To be considered as part of 2026 MPA approach (include as a potential direction in current year recommendation).

Areas of Priority for 2026 MPA

HSCRC is proposing a more complete revisit of traditional MPA and MPA Framework for 2026 in coordination with AHEAD model. Areas of priority identified this year:

- Attribution method for Traditional MPA
 - Look at CTI based approach or return to primary care-based attribution
 - Leverage new terms in AHEAD model for level of attribution
- Further refinement of CTI Stop Gain and/or Offset
- Revisit MPA Tiers – will be done in conjunction with renewed benchmarking
- Index CTI offset to savings position



Benchmarking

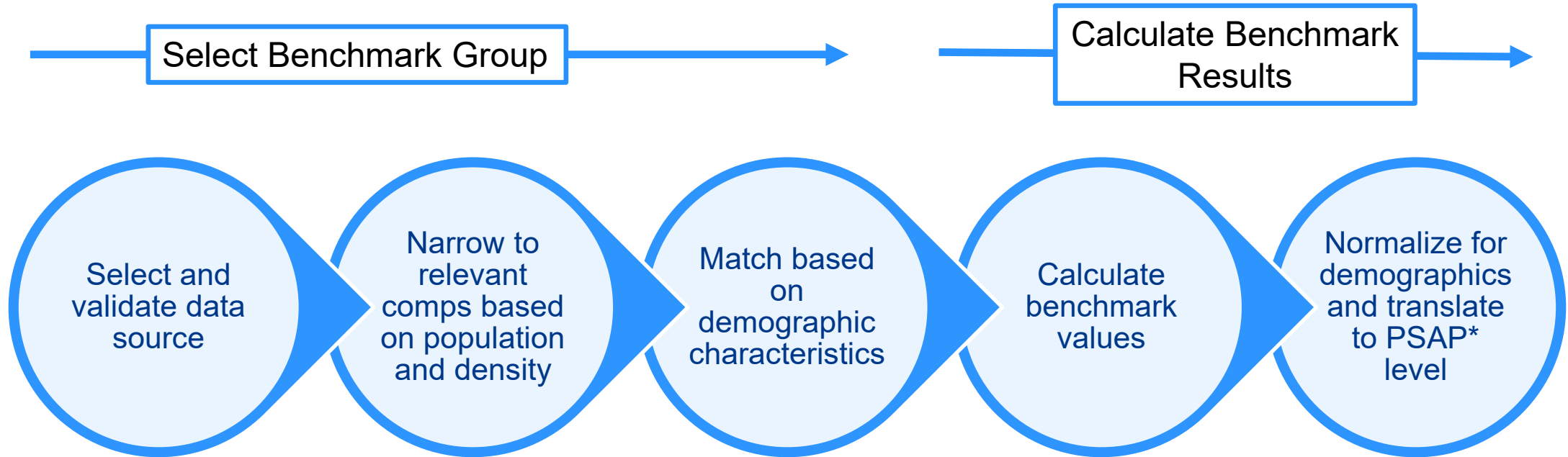
Benchmarking Methods Review

- Recap of goals and approach
- Review of technical concepts for model assessments
- Recap of initial findings for matching (No new information)

Goals of Benchmarking

- In 2019 HSCRC developed and implemented a process to compare Maryland's total cost of care to like geographies in other states. Goal was stated as:
 - Create a tool to allow the incorporation of Total Cost of Care (TCOC) benchmarks into appropriate methodologies at a granular level and guide the State on areas of strength and weakness in terms of cost and quality.
- Focus on Medicare (MC) fee-for-service and Commercial (CO) benchmarks of people younger than 65.
- Data is used in:
 - ICC and Efficiency Policies
 - Attainment measurement under the MPA
 - Readmission information used in goal setting for quality policies
 - Care analytics and diagnostics
- Results through 2021 and more information can be found under benchmarking on this page: [TCOC Workgroup](#)

Overall Approach



*PSAP: Primary Service Area Plus

Current Model:

Narrow to Relevant Comparisons and Match Based on Demographic Characteristics

- After narrowing possible comparison geographies based on the level of urbanization, the “similarity” between each MD geography and each comparable geography was calculated across selected metrics.

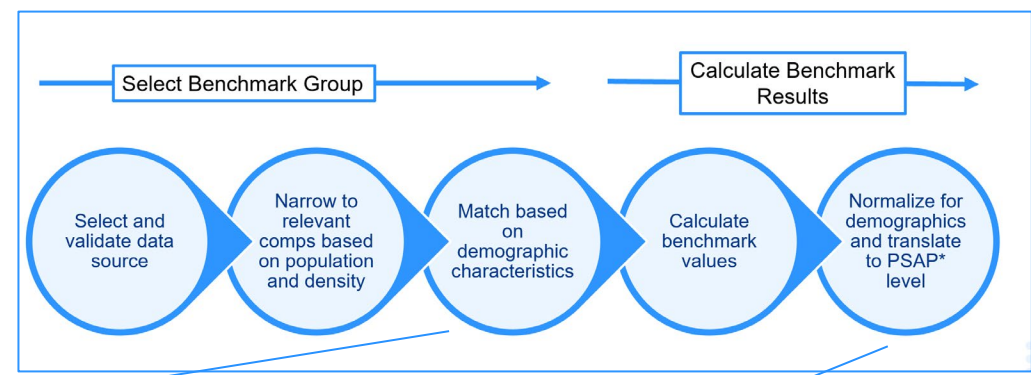
Median Income Source: American Community Survey	Regional Price Parities Measure of price levels across the United States Source: Bureau of Economic Analysis
Deep Poverty Percentage of people earning below 50% of the poverty line Source: American Community Survey	Risk Score (Medicare CMS- HCC, Commercial HHS – Platinum Risk Score) Measure of health care cost risk in a population Source: Claims Data
Percentage Government Payer (Commercial Only) – Source: Medicare Cost Reports	

- Peer counties/MSAs are those with the most “similarity” across all measures. The measures are weighted equally in calculating the similarity.

Method review cycle

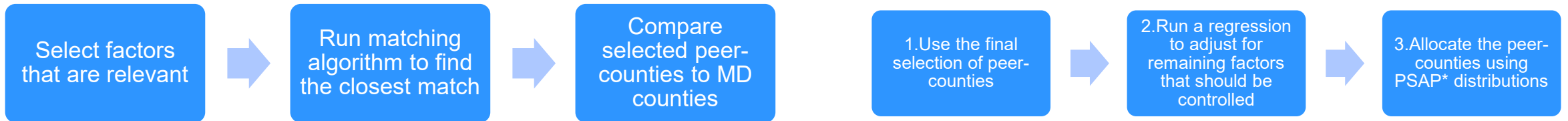
- Maintain the methodology for five-years to allow comparability across years (similar to case-mix weights, which are updated every two years)
 - Initial methodology
 - Benchmark peers were selected using on 2016-2018 data
 - Produced 2018-2022 results
- Started discussion revisions to the methodology in May, 2025 with TCOC
 - We discussed three options below for the approach, and selected option-2 based on the feedback.
 - 1) Maintain existing benchmarking methodology.** Update data sources. Prioritizes stability and consistency.
 - 2) Methods expansion.** Keep framework unchanged but expand methods such as through adding matching variables or regression variables
 - 3) Framework change.** ~~Change geographic unit to PUMA or directly mapping hospital PSAPs to PUMA or county.~~

Overall Approach



Match Based on Demographics

Further Nomalize using Regression



- Original factors “data refresh”
- 11 new factors

- No change in methods
- “the k-nearest neighbor approach”, each county is matched to other counties within the same group most similar on county characteristics (e.g., deep poverty, median income).

Asses the results using several methods

- **Distance:** How similar is the selected peer-counties to MD county on selected factors.
- **Balance:** How similar is selected peer-counties to MD county on all factors at the state level.
- **Complexity:** vs. magnitude of change.

Asses the regression results:

- Coefficient signs and statistical significance: if the factors in the regression are highly correlated (collinearity), regression will produce unreliable estimates for those factors
- Balance impact vs. complexity
- R-squared: How good is the model to explain the variation in TCOC.

*PSAP: Primary Service Area Plus

Possible factors for benchmark county selection (i.e., matching)

Baseline model variables	Variables to test for inclusion in model
<ol style="list-style-type: none"> 1. Population density - population per square mile 2. Rural/urban continuum code 3. Total population estimate 4. Median household income 5. Percentage of population in deep poverty 6. Regional purchasing parities 7. Average Hierarchical Condition Category (HCC) Score for Medicare beneficiaries 	<p>Health Factors</p> <ol style="list-style-type: none"> 1. Percentage of adults aged 20 and above with diagnosed diabetes (age-adjusted). 2. Percentage of adults who are current smokers (age-adjusted). 3. Percentage of the adult population (age 18 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m² (age-adjusted). 4. Food Environment Index <p>Socioeconomic Factors</p> <ol style="list-style-type: none"> 1. Percentage of population identifying as non-Hispanic Black or African American. 2. Percentage of population identifying as Hispanic 3. Bureau of Labor Statistics wage for ambulatory healthcare service, private ownership type 4. CDC/ATSDR Social Vulnerability Index, overall ranking variable

Final Factors were selected based on preliminary analysis of correlation between TCOC and Factors.

- Not to test:
 - Health outcomes
 - MA penetration
 - Part-A only
 - Dual status
- Additional factors to evaluate:
 - Health factors- health behaviors
 - Non-Hispanic Black
 - Social and economic factors (index vs. individual measure)

Testing Factors in Matching Algorithm

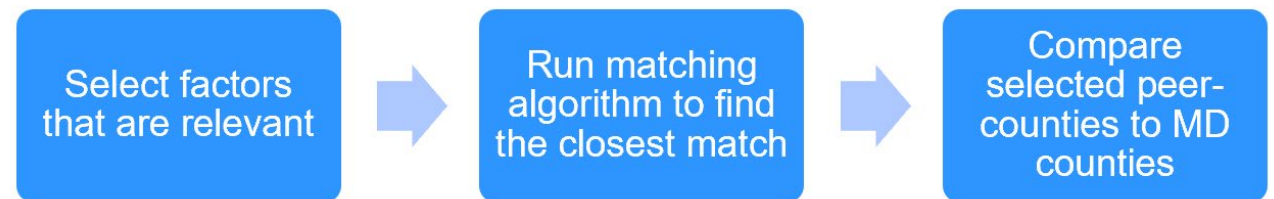
- Original: Median household income, % deep poverty, regional price parities, average HCC score
- Refreshed: Same as Original, updated to 2022 data
- Scenario 1: Original + % percent diabetes
- Scenario 2: Original + % Black or African American
- Scenario 3: Original + % Hispanic
- Scenario 4: Original + BLS health wage index
- Scenario 5: Original + BLS health wage index - median household income
- Scenario 6: Original + CDC/ATSDR SVI
- Scenario 7: Original + CDC/ATSDR SVI - median household income - % deep poverty
- Scenario 8: Original + CDC/ATSDR SVI four sub-domains - median household income - % deep poverty
- Scenario 9: Original + Adult Smoking from County Health Ranking
- Scenario 10: Original + Adult Obesity from County Health Ranking
- Scenario 11: Original + Food Environment Index from County Health Ranking

We tested if replacing highly correlated variables will result in better matches.

Using correlated factors do not impact matching results but inflates the overall distance comparisons.

Impact of Data Refresh on Prior Match

Match Based on Demographics



Baseline Model – Data refresh (updated year and data sources)

Baseline model variable	Current data source
2023 Rural/Urban Continuum Code*	2023 USDA ERS
2020 Population density - population per square mile**	2022/23 Area Health Resource File
2018-2022 Median Household Income in the Past 12 Months	ACS 5-year 2018-2022
2018-2022 Percent population in deep poverty, defined as the ratio of income to poverty level in the past 12 months is under 0.50	ACS 5-year 2018-2022
2020 and 2023 annual estimates of total resident population	Census Annual Estimates of the Resident Population for Counties in the United States:
2022 Medicare beneficiaries average HCC score	ARC/LD's 2022 Medicare input data
2022 Price parities	Regional Price Parities by State and Metro Area U.S. Bureau of Economic Analysis (BEA) Working paper: Estimating county-level regional price parities from public data U.S. Department of Commerce

*Allegany, Calvert, and Worcester counties changed exact match strata and were allowed to draw from two strata when matching benchmark counties.

**Estimated using the 2020 population density and 2023 to 2020 population growth.

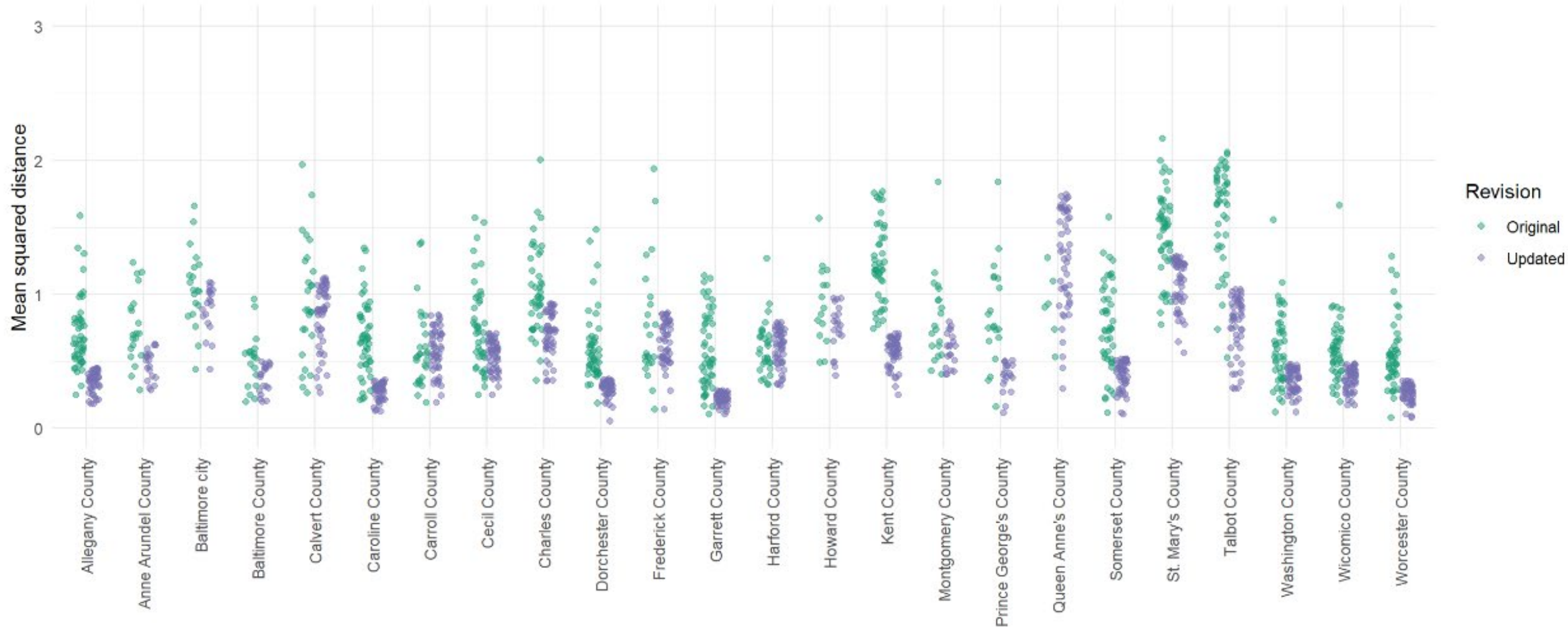
Assess factors for matching: Comparability Across Multiple Domains at the state level

Balance statistics- Average Standardized Difference

Domains	Measures
Health Factors	Percentage of adults aged 20+ with diagnosed diabetes (age-adjusted)
	Percentage of adults who are current smokers (age-adjusted)
	Percentage of the adult population that reports overweight
	Healthy food environment
Race and Ethnicity	2022 Percentage of population identifying as non-Hispanic Black or African American
	2022 Percentage of population identifying as Hispanic
Price	2022 Regional price parities
	2022 BLS wage for all industries, all ownership type
	2022 BLS wage for ambulatory healthcare service, private ownership type
Socio-economic	2018-2022 Median Household Income
	2018-2022 Percent population in deep poverty
	2022 Social Vulnerability Index (SVI), overall
Outcomes	Age-adjusted Preventable Death Rate (Rate of death due to malignant neoplasms, heart, cerebrovascular, chronic lower respiratory diseases, and accidents)

Data Refresh-Initial results

Distance: After data refresh, Maryland counties are more similar to newly matched counties (purple dots) than counties matched for prior performance period (green dots) on selected measures: Median income, Deep Poverty, Regional Price Parity, HCC

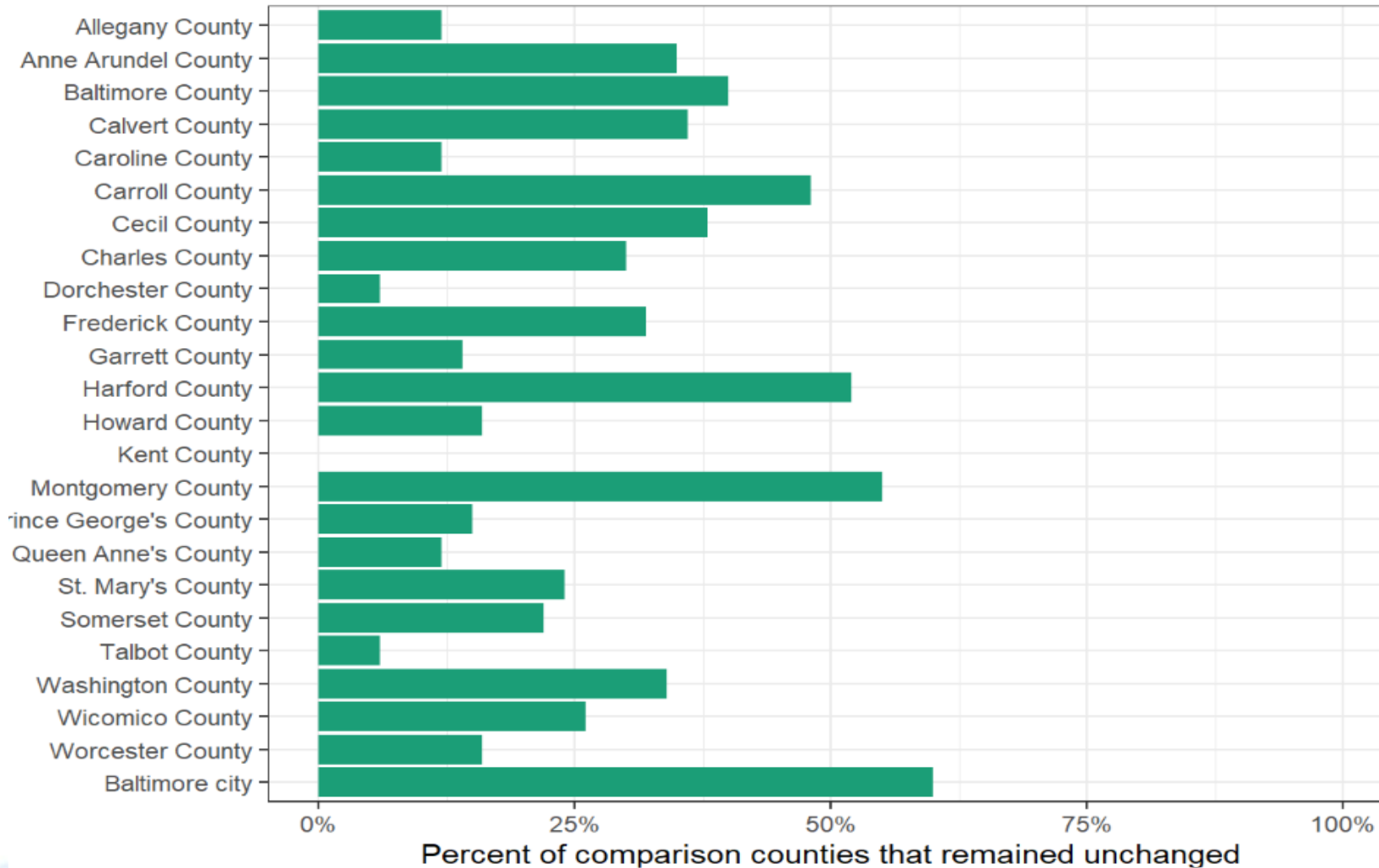


Data Refresh: Balance across domains

Updated peers with data refresh results in closer matches for wage index (0.13) and percent of population identifying as Hispanic), worse matches for diabetes (-0.14)

Balance Factors	Difference between MD counties and all US counties	Difference between MD counties and original peers	Difference between MD counties and updated peers	Original vs. Updated Peers
2022 Regional price parities	1.25	0.11	0.16	(0.05)
Percentage of adults who are current smokers (age-adjusted)	1.25	0.19	0.16	0.03
2018-2022 Median Household Income	1.05	0.24	0.23	0.02
Healthy food environment	1.04	0.19	0.20	(0.01)
2022 BLS wage for ambulatory healthcare service, private ownership type	0.92	0.07	0.11	(0.03)
2018-2022 Percent population in deep poverty	0.80	0.03	0.10	(0.07)
2022 BLS wage for all industries, all ownership type	0.77	0.20	0.07	0.13
2022 Percentage of population identifying as non-Hispanic Black or African American	0.72	0.69	0.72	(0.03)
2022 Percentage of population identifying as Hispanic	0.66	1.54	1.08	0.46
Rate of preventable premature deaths from the five leading causes of death, age-adjusted	0.47	0.25	0.29	(0.04)
2021 Percentage of adults aged 20+ with diagnosed diabetes (age-adjusted)	0.43	0.32	0.45	(0.14)
2022 Social Vulnerability Index (SVI), overall	0.30	0.05	0.07	(0.02)
Percentage of the adult population that reports overweight	0.16	0.55	0.58	(0.03)

Data Refresh Impact– Most MD counties are matched to different set of peers when we update the data.



Original benchmark peer's median income grew faster than MD.

Weighted Maryland Average Comparison, MD vs. Original Peers		
Measure	MD	Original Peers
Median Income -original data	\$78,380.45	\$73,760.32
Median income-updated data	\$99,835.43	\$96,426.59
Rate of Growth	27%	31%
Deep Poverty-original data	4.90%	5.30%
Deep Poverty-updated data	4.70%	4.60%
Rate of Growth	-0.30%	-0.70%
Regional Price Parity-original data	108.93	106.34
Regional Price Parity-updated data	104.32	105.13
Rate of Growth	-4.20%	-1.10%
Average HCC score-original data	1	1.01
Average HCC score-updated data	1.16	1.18
Rate of Growth	16%	17%

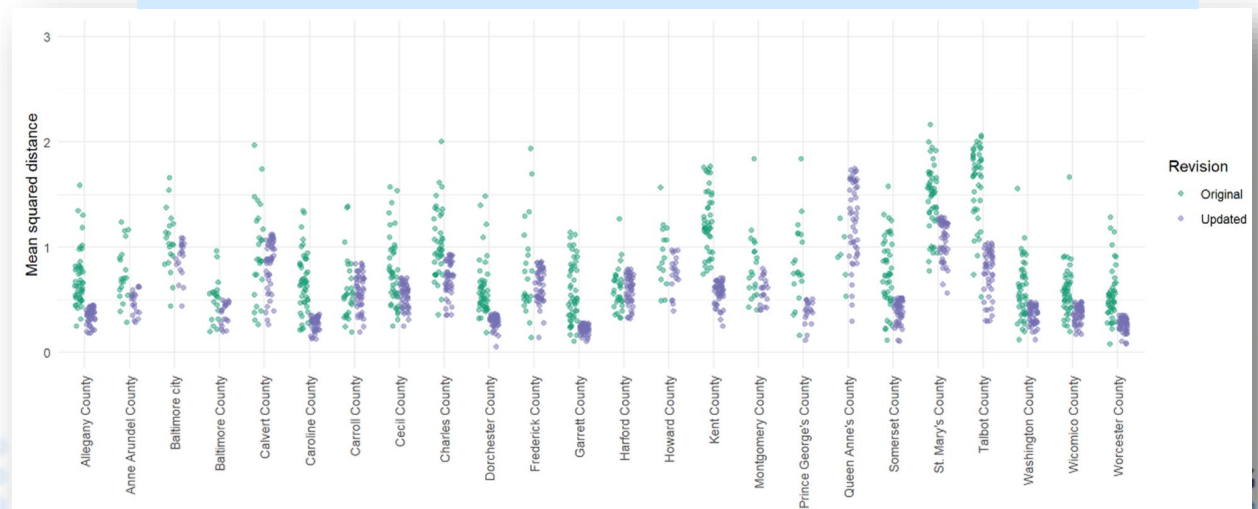
Original peers vs. Updated peers

Average absolute differences between MD county vs. peer counties are much smaller.

Average Absolute Difference Weighted by Beneficiary Count

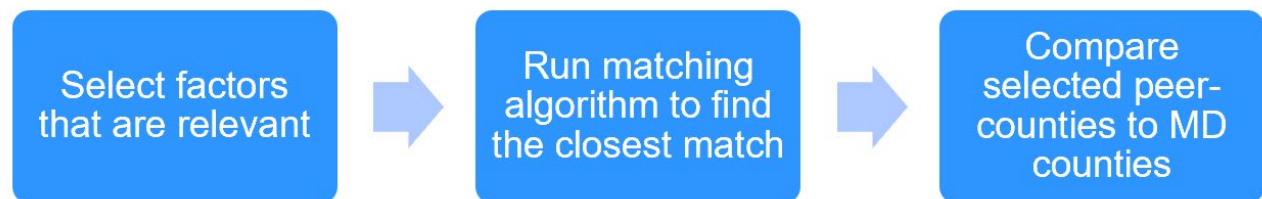
	Original peers- Original difference	Original peers- Updated difference	Updated peers- Updated difference
Median Income	9.30%	8.80%	7.40%
Deep Poverty	1.00%	0.80%	0.60%
Regional Price Parity	3.47	2.61	1.35
HCC Score	4.00%	4.30%	2.70%

Mean squared distance by county, original and updated peers, updated data



Alternative Approach to Demographic Match

Match Based on Demographics



Testing Factors in Matching Algorithm

- Original: Median household income, % deep poverty, regional price parities, average HCC score
- Refreshed: Same as Original, updated to 2022 data
- Scenario 1: Original + % percent diabetes
- Scenario 2: Original + % Black or African American
- Scenario 3: Original + % Hispanic
- Scenario 4: Original + BLS health wage index
- Scenario 5: Original + BLS health wage index - median household income
- Scenario 6: Original + CDC/ATSDR SVI
- Scenario 7: Original + CDC/ATSDR SVI - median household income - % deep poverty
- Scenario 8: Original + CDC/ATSDR SVI four sub-domains - median household income - % deep poverty
- Scenario 9: Original + Adult Smoking from County Health Ranking
- Scenario 10: Original + Adult Obesity from County Health Ranking
- Scenario 11: Original + Food Environment Index from County Health Ranking

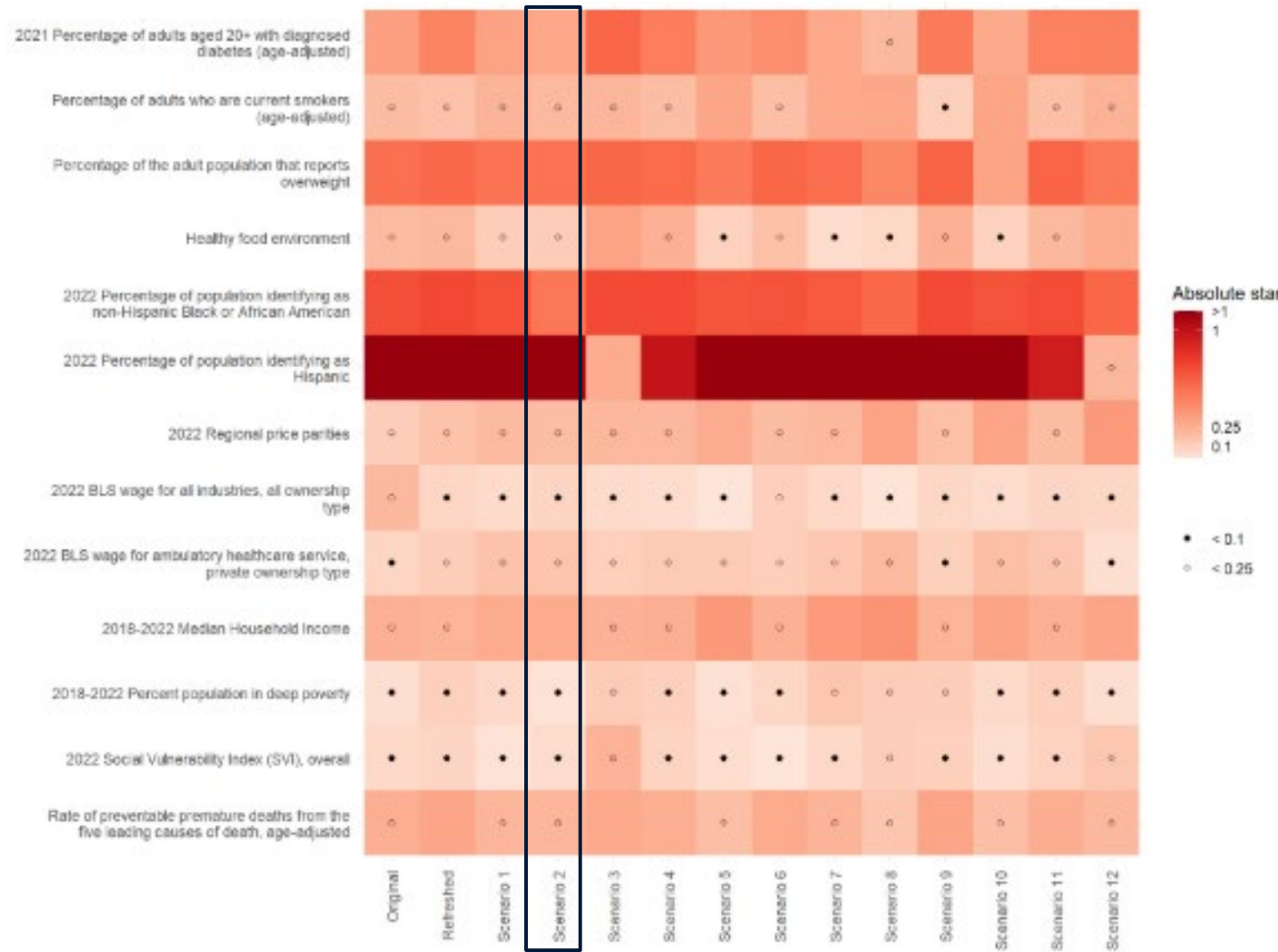
Distance measures variables included in the scenario

County	Average Distance											
	Change in Average Distance compared to Scenario 0: Data Refresh with Original Factors											
	Sc0: Refreshed: Org+2022Update	Sc1: Org + % diabetes	Sc2: Org + % Black	Sc3: Org+ % Hisp	Sc4: Or+ BLS Wagn	Sc5: Org + BLS WageIn- Income	Sc6: Org + SVI	Sc7: Org + SVI - income - % DP	Sc8: Org + SVI Domains- Income-DP	Sc9: Org+ Adult Smoking	Sc10: Org + Adult Obesity	Sc11: Org + Food Environment Index
Garrett County	0.23	0.02	(0.02)	0.00	0.11	0.08	0.05	(0.03)	0.20	0.06	0.19	0.04
Worcester County	0.26	0.07	0.10	0.01	0.08	0.06	0.08	(0.01)	0.14	0.04	0.06	0.10
Caroline County	0.28	0.06	0.14	0.03	0.12	0.11	0.14	0.04	0.18	0.03	0.13	0.03
Dorchester County	0.30	0.04	0.22	0.00	0.08	0.06	0.08	0.02	0.15	0.02	0.03	0.03
Allegany County	0.36	0.02	0.04	0.03	0.04	0.04	0.08	(0.03)	0.15	0.03	0.07	0.04
Washington County	0.36	0.08	0.04	0.02	0.06	0.04	0.06	0.02	0.11	0.03	0.11	0.05
Wicomico County	0.36	0.03	0.17	0.00	0.06	0.02	0.06	(0.03)	0.06	0.02	0.03	0.04
Baltimore County	0.37	0.06	0.19	0.08	0.07	0.07	0.05	0.05	0.20	0.00	0.14	0.05
Prince George's County	0.39	0.34	0.93	0.06	0.03	0.02	0.20	0.15	0.29	0.03	0.39	0.03
Somerset County	0.40	0.09	0.27	(0.01)	0.31	0.30	0.06	0.04	0.27	0.04	0.27	0.05
Anne Arundel County	0.48	0.02	0.07	0.05	0.08	0.04	0.06	0.11	0.18	(0.02)	0.16	0.04
Cecil County	0.54	(0.00)	(0.01)	(0.01)	0.06	0.06	0.02	(0.09)	0.06	0.01	0.02	0.03
Maryland average	0.57	0.04	0.14	(0.00)	0.07	(0.01)	0.03	(0.06)	0.06	(0.00)	0.09	0.02
Kent County	0.57	0.02	0.06	(0.03)	0.11	0.11	0.04	0.06	0.16	(0.01)	0.07	(0.02)
Carroll County	0.58	(0.00)	(0.02)	0.01	0.02	(0.06)	(0.01)	(0.04)	0.05	(0.02)	0.03	0.05
Montgomery County	0.59	(0.01)	0.07	(0.01)	0.06	0.01	0.02	0.01	0.17	0.01	0.03	0.02
Harford County	0.60	0.03	0.03	0.00	0.00	(0.04)	(0.01)	(0.06)	0.02	(0.02)	0.01	0.04
Frederick County	0.64	(0.01)	(0.02)	(0.01)	0.01	(0.11)	(0.03)	(0.10)	(0.03)	(0.03)	0.02	0.03
Charles County	0.71	0.24	0.76	(0.03)	(0.01)	(0.13)	(0.04)	(0.10)	0.15	(0.04)	0.28	(0.00)
Howard County	0.75	(0.04)	0.05	0.02	0.06	(0.07)	0.01	(0.03)	0.06	(0.02)	0.01	(0.04)
Talbot County	0.77	(0.03)	0.00	(0.04)	0.20	0.14	(0.01)	0.01	0.25	0.01	0.07	(0.03)
Calvert County	0.85	(0.00)	(0.03)	(0.05)	(0.02)	(0.33)	(0.05)	(0.29)	(0.20)	(0.06)	0.04	(0.05)
Baltimore city	0.89	(0.01)	0.45	(0.00)	0.06	0.14	(0.07)	(0.39)	(0.31)	(0.04)	(0.03)	(0.02)
St. Mary's County	1.08	(0.04)	(0.04)	(0.09)	0.00	(0.63)	(0.07)	(0.71)	(0.55)	(0.06)	(0.03)	(0.08)
Queen Anne's County	1.26	(0.07)	(0.11)	(0.06)	(0.00)	(0.11)	(0.06)	(0.08)	(0.25)	(0.06)	(0.05)	(0.05)

More similar counties are found if we replace median income with SVI.

Balance statistics is similar for scenarios.

Scenarios	Average of Adjusted Absolute Difference	Number of Factors <= .10	Number of Factors <= .25	Total Number of Factors in the Model
Sc2: Org + % Black	0.28	3	8	13
Sc10: Org + Adult Obesity	0.29	4	6	13
Sc3: Org+ % Hisp	0.30	1	7	13
Sc5: Org + BLS WageIn-Income	0.30	4	6	13
Sc1: Org + % diabetes	0.30	3	8	13
Sc8: Org + SVI Domains- Income-DP	0.30	2	7	13
Sc7: Org + SVI - income - % DP	0.32	3	7	13
Sc6: Org + SVI	0.32	2	8	13
Sc11: Org + Food Environment Index	0.32	3	8	13
Sc4: Or+ BLS WageIn	0.32	3	8	13
Refreshed: Org+2022Update	0.33	3	8	13
Sc9: Org+ Adult Smoking	0.33	4	8	13
Original: Income, % DP, RPP,HCC	0.34	3	9	13



Next Steps

- Empirical model: Add as many factors based on their correlation with TCOC
 - Stepwise regression to narrow down all factors in a single model.
 - (e.g. median income vs. SVI)
 - Test ability to find good matches if we expand the number of factors
 - (e.g. if we match on five factors rather than three) do we have good balance on all the factors)
- Narrow down options for matching methods (3 best options)
 - Promising models: add % Black (Sc2), replace median income and deep poverty with SVI (Sc 7)
- Evaluate step 2: Regression adjustment after matching is finalized
 - Which factors would still require a regression adjustment?



Next Steps

TCOC Workplan for Upcoming Months

- Workgroup survey sent to members in coming weeks
 - Day/time change consideration
- Upcoming TCOC Workgroup Dates (Dates have changed)
 - December Meeting Cancelled
 - January 22, 2025 (8-10AM)
 - 2025 Meeting Dates (Tentative) posted on [TCOC Workgroup Webpage](#)
- Future meetings topics:
 - January
 - AHEAD All-Payer financial targets discussion (Medicaid, Commercial, Primary Care Investment)
 - Update on savings drivers through June 2024
 - Benchmarking
 - March
 - Wrap-up benchmarking
 - Kickoff revisit of MPA for 2026

Thank You
Next Meeting January 22, 8-10 am