Health Care Market Oversight Analytic Framework

Overview

This framework describes the analytic approach of the Oregon Health Authority's Health Care Market Oversight program (HCMO) for conducting reviews of material change transactions pursuant to ORS 415.500 et seq. The framework is grounded in the goals, standards and criteria for transaction review and approval outlined in OAR 409-070-0000 through OAR 409-070-0085. This document outlines the analytic methods, performance measures, and sources of information HCMO expects to use for reviews of material change transactions.

This document provides the menu of potential analyses from which HCMO will choose in reviewing a particular material change transaction (hereafter, "transaction"). HCMO does not expect to complete every analysis described here for every transaction review. The specific facts of the proposed transaction, the availability of reliable data, and time constraints associated with preliminary and comprehensive review periods will affect the analyses included in HCMO's review of any given transaction. These considerations are further described in the section entitled "Application of the Framework." As the program matures, HCMO may update this framework as needed to reflect current practice, provide additional details on methodologies and measures, incorporate newly available data sources, and clarify implementation of the framework for specific transactions.

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Nature of the Transaction and Characteristics of the Entities

Before starting the analysis, HCMO will review the Notice of Material Change Transaction form (hereafter, "notice") and proposed agreement or term sheet to extract key facts about the transaction, including:

Type of transaction: Merger, acquisition, affiliation (clinical, corporate, contracting), contract, partnership, joint venture, formation of Accountable Care Organization (ACO), parent organization, or management services organization.
Entities involved in the transaction: Type(s) of health care entities (hospital, health system, physician group, Coordinated Care Organization [CCO], insurer, etc.), service lines, facilities owned or operated, size (volume, revenue, capacity, employees), geographic area(s) of operation, patient demographics (including payer mix), existence of clinical or contracting affiliations, major contracting relationships, ownership/control of other businesses.
Ownership/governance/operational structure: Ownership type (public/private; for-profit/non-profit, LLC/corporate, etc.), governance, and operational structure of the parties to the transaction and any changes in ownership, governance, or operational structure resulting from the transaction.
Objectives: Rationale for the transaction; main benefits expected from the transaction.
Post-transaction plans: New investments, management or operational changes, including changes to services anticipated or planned to be implemented after the transaction closes.
Anticipated impact: Applicant's expectations for the impact of the transaction on access to affordable health care, health care cost growth, access to services in medically underserved areas, health inequities, and competition in health care markets.

If necessary, HCMO will consult with the Oregon Department of Justice (DOJ) on whether the transaction meets the criteria for a material change transaction under OAR 409-070-0005 through OAR 409-070-0025. For purposes of establishing these basic facts, HCMO may request supplementary information from the entities if the above information is not contained in the notice, proposed agreement, or term sheet.

Analytic Domains

HCMO analysis will focus on four domains: **cost, access**, **equity**, and **quality**. For each domain, HCMO will assess:

- The **current performance** of the entities involved in the transaction, based on relevant outcome metrics prior to the transaction. Current performance will be measured relative to performance of other comparable health care entities (see" Identifying Comparator Entities" for details on how comparator entities will be identified). When possible, multiple years of data will be used to assess current performance.
- The likely **impact of the transaction** on performance, given current performance, known details of the transaction, characteristics of the health care market(s) in which the entities operate, and the entities' goals and plans post-transaction. Impact analyses will seek to anticipate the entities' post-transaction performance and compare this to expected performance in the absence of the transaction. Focus will be on short-term (12-month) impacts of the transaction, although longer term impacts will also be considered. Impact analyses will be informed by academic research on the effects of similar transactions.

The Outcomes and Analysis section describes, for each domain, the key outcomes HCMO will assess and the methods HCMO may use to determine the likely impact of the transaction. Outcome metrics and analytic methods for a given transaction will depend on several factors, as described in the following section.

Application of the Framework

This section describes the main factors influencing the types of outcome measures and analyses HCMO will perform in reviewing a given transaction. These include the level of review (preliminary versus comprehensive), the characteristics of the entities, and the nature of the transaction.

Level of Review

Following a preliminary review, HCMO may determine that a comprehensive review is required if there are indications that the transaction may lead to significant adverse effects in any of the domains of cost, access, equity, or quality. (Please refer to HCMO sub-regulatory guidance: Criteria for Comprehensive Review of Material Change Transactions.[1]) Preliminary and comprehensive reviews may differ on multiple dimensions, including:

- **Quantitative analyses.** The number of outcome measures assessed, the level of granularity at which measures are calculated, the degree of adjustment of measures to account for provider- or population-specific factors, and the level of sophistication of statistical/econometric analyses.
- **Data sources.** The number of data sources used, reliance on confidential data and documents provided by the entities (subject to request), use of third-party proprietary databases.
- **Use of qualitative methods.** Qualitative analysis for preliminary reviews will be limited to review of publicly available documents, reporting, and any public comments submitted in response to the notice. Comprehensive reviews may include collection of qualitative information and in-depth analysis of documents obtained from the entities.

Table 1 provides an overview of HCMO analyses and data sources for preliminary and comprehensive reviews. The two left-hand columns list the data sources HCMO will use for preliminary reviews and the associated analyses. The two right-hand columns provide a menu of possible data sources and analyses for comprehensive reviews.

For current performance analysis during preliminary review, HCMO will examine a limited set of measures of cost, access, equity and quality using readily available administrative data (e.g., claims, hospital discharge data), existing reporting, and other publicly available information and documents. Additional information needed for preliminary analysis may be requested to supplement or clarify the contents of the notice, including details about the transacting entities, recent quantitative data, current policies and procedures, or narrative about patient and community engagement efforts. Please see Table 2 below for a list of supplemental items that may be requested during the preliminary review period.

For domains and outcomes identified as concerning during the preliminary review, HCMO will expand its analysis of current performance during comprehensive review by adding measures, using additional data sources for calculating measures, and calculating measures at a more granular level. For impact analysis, HCMO will generally employ more sophisticated statistical or econometric techniques during comprehensive review. To obtain additional data sources needed for more in-depth quantitative analysis, HCMO may request internal data from the entities or leverage third-party databases.

In addition to quantitative analyses, comprehensive reviews may include qualitative data collection and analyses, for example, input from community members as part of a Community Review Board (CRB), interviews with representatives of the entities and community groups, and review of internal documents requested from the entities relating to integration planning or quality improvement. (For more information on CRBs, please refer to HCMO sub-regulatory guidance: Criteria for Community Review Boards.[2])

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[1] Guidance is available at https://www.oregon.gov/oha/HPA/HP/HCMOPageDocs/HCMO-Criteria-for-Comprehensive-Review.pdf.

[2] Guidance is available at https://www.oregon.gov/oha/HPA/HP/HCMOPageDocs/HCMO-Community-Review-Board-Criteria.pdf.

HCMO may retain outside advisors such as economists, accountants, actuaries, qualitative researchers, attorneys, and health care quality experts to carry out the more sophisticated and detailed analyses that may be required for a comprehensive review. HCMO does not expect to retain outside advisors for preliminary reviews, except on rare occasions where state agencies lack the necessary expertise. (Please refer to HCMO sub-regulatory guidance: Criteria for OHA Use of Outside Advisors for Material Change Transaction Review.[3])

Type of Entity

HCMO will review material change transactions involving any health care entity. Per OAR 409-070-0005, the types of entities meeting the definition of a "health care entity" include:

- Individual health professionals licensed or certified in Oregon.
- Hospitals.
- Health systems.
- Carriers offering a health benefit plan or Medicare Advantage plan.
- Coordinated care organizations.
- Other entities as defined in OAR 409-070-0005 (16)(f)-(g) and (17).[4]

The type(s) of entities engaging in the material change transaction will determine the measures HCMO uses to assess current performance and implementation of impact analyses in each domain. For example, in the access domain, measures of payer mix would be relevant for hospitals, health systems and physician groups. For carriers, HCMO would examine the size and composition of the provider network. In the cost domain, price, market share, and spending measures would be defined differently depending on the types of services offered by the entity.

Nature of the Transaction

HCMO's analytic approach will also differ based on the type of transaction (e.g., merger, acquisition, affiliation, partnership, joint venture, etc.) and the specific facts of the transaction (e.g., the associated change in ownership, governance, management, or operational structure). In addition to being relevant for the choice of analyses, these factors may affect the domains of focus (e.g., cost, access, quality, or equity) for impact analyses. For example, a contracting affiliation in which there are no changes in management or operations of either entity would be less likely to have implications for access than an acquisition in which the entities plan to integrate management and operations.

[3] Guidance is available at https://www.oregon.gov/oha/HPA/HP/HCMOPageDocs/HCMO-Outside-Advisors.pdf.

[4] Guidance is available at https://www.oregon.gov/oha/HPA/HP/HCMOPageDocs/HCMO-Entities-Subject-to-Review.pdf.

Table 1: Summary of Analyses and Data Sources for Transaction Reviews

	PRELIMINARY REVIEW		COMPREHENSIVE REVIEW	
Domain	**Data Sources**	**Analyses**	**Potential Additional Data Sources**	**Potential Additional Analyses**
Cost	- All Payer All Claims (APAC) data - Hospital discharge data - Audited financial statements - CCO/Hospital financial reporting - Cost growth target data - DCBS health insurer data - Publicly available data on hospital/health system characteristics (e.g., CMS, AHRQ) - Other information provided in notice	- Nature of the transaction - Characteristics of the entities (including entity ownerships and structure) - Market share/Market concentration analysis - Financial analysis (solvency, profitability) - Relative prices - Historical price growth - Total spending on health care services (absolute/relative, growth rate)	- Pricing/contract data - Interviews with representatives of transacting or comparator entities - Information on participation in value-based payment models - Documents relating to integration planning - Community Review Board (CRB) convening - Provider cost data	- Additional/more granular outcome measures - Diversion analysis - Willingness-to-Pay (WTP) analysis - Merger simulation - Synthesis of CRB opinions and recommendations - Analysis of interview transcripts/notes - Retrospective analysis of price changes following previous similar transactions - Assessment of potential efficiencies from integration - Qualitative analysis of interview transcripts/notes - Document review
Access	- APAC data - Hospital discharge data - CCO/Hospital financial reporting - Census data - Press releases and other public statements by the transacting entities - Other information provided in notice - Public comments submitted in response to notice	- Service volume (absolute and relative to service area/ comparator entity volume) - Number of providers/clinicians - Payer mix - Patient demographics	- CRB convening - Documents relating to integration planning - Workforce/capacity data - Enrollment data - Contract data (carriers) - Interviews with representatives of transacting or comparator entities - Emergency Department Information Exchange (EDIE)	- Additional/more granular outcome measures - Retrospective analysis of access outcomes following previous similar transactions - Analysis of service line profitability - Synthesis of CRB opinions and recommendations - Document review - Qualitative analysis of interview transcripts/notes
Equity	- APAC data - Financial reporting	- Community Benefit spending	- CRB convening - Enrollment data	- Synthesis of CRB opinions and recommendations

	PRELIMINARY REVIEW		COMPREHENSIVE REVIEW	
Domain	**Data Sources**	**Analyses**	**Potential Additional Data Sources**	**Potential Additional Analyses**
	- Health equity reporting - Census data - Community benefit reporting - Community health/equity assessments - Press releases and other public statements by the entities - Documents relating to integration planning - Public comments submitted in response to notice	- Patient demographics - Quality/access outcomes stratified by patient demographics - Document review	- Social needs screening/referral data - Interviews with representatives of priority population groups or community-based organizations - Health Care Workforce Reporting Program - Workforce directory/survey data - Traditional Health Worker/Health Care Interpretation registries	- Additional/more granular outcome measures - Provision of care coordination/social services referral - Qualitative analysis of interview transcripts/notes - Provision of translation/interpretation services - Utilization of traditional/community health workers - Workforce diversity/representation of community
Quality	- APAC data - Existing quality reporting (e.g., CCO metrics, hospital quality, Medicare, NCQA) - DCBS health insurer data - CAHPS survey data - Other relevant information provided in notice - Public comments submitted in response to notice	- Clinical quality measures - Patient outcome measures - Patient experience measures - Participation in national or statewide care delivery transformation efforts	- Documents relating to quality management/integration planning - Interviews with representatives of entities - Electronic health record extracts - Information on participation in value-based payment models - CRB convening - Grievance and appeals reporting - Entity-administered CAHPS results	- Additional/more granular outcome measures - Document review; assessment of potential quality improvements from integration - Qualitative analysis of interview transcripts/notes - Synthesis of CRB opinions and recommendations - Retrospective analysis of quality outcomes following previous transactions

Table 2: Supplemental information that may be requested for preliminary review

Area/Domain	Supplemental Information
Nature of the transaction and characteristics of the entities	- Chart showing all entities involved in the transaction and their relationships to one another (e.g., ownership stake, control, management) pre- and post-transaction; may involve a more detailed chart necessary for transaction review and a separate more redacted chart for public posting - Description of all entities involved in the transaction, their role in the transaction, and their connection to patient care - Annual national and Oregon revenue for all entities involved in the transaction in the previous year(s) - Business registration and/or incorporation documents (if business is primarily registered in another state) - Current investigations, regulatory action, fines, or formal complaints filed against any entity involved in the transaction
Cost	- For hospitals: Hospital Price Transparency Law-compliant data (if not readily available online), summarized or filtered as relevant - For carriers: Transparency in Coverage-compliant data (if not readily available online), summarized or filtered as relevant
Access	- For providers: patient payer mix from recent year(s), at minimum identifying patients covered by Medicare, Medicaid (Oregon Health Plan), commercial, and uninsured; may request coverage by specific carrier if relevant to the transaction - Patient/member demographic information from recent year(s), including race, ethnicity, language, age, sex, disability, gender identity, sexual orientation, zip code*Provider/staff demographic information from recent year(s) - Number of providers and/or full-time equivalent (FTE) and patient/staff ratios, by provider type as relevant to the transaction
Equity	- Documentation/description of culturally and linguistically appropriate services** provided or offered - Policy/procedure and patient-facing materials around provision of interpretation services - Policy/procedure and patient-facing materials around unpaid/charity care and patient financial assistance - Policies or action plans to identify and reduce health disparities and inequities across patient/member population - Documentation/description of community involvement in entity governance or decision-making - Documentation/description of programs, initiatives, or events intended to engage the community served and build relationships; examples include health fairs, patient education programs, or sponsored health-related events - Documentation/description of participation in community groups, including community organization boards, Coordinated Care Organization (CCO), participation in Regional Health Equity Coalitions (RHECs), support of county health department efforts or other local government activities (e.g., school districts, Parks and Recreation, Early Learning Hubs) - Community investments or benefits aimed at addressing health inequities and/or social determinants of health - For CCOs: most recent version of Health Equity Plan - For relevant entities: narrative around health equity strategy and/or specific elements related to health equity from most recent submission for accreditation to National Committee for Quality Assurance (NQCA), the Patient-Centered Primary Care Home (PCPCH) program, the Joint Commission, or other quality-related bodies - Consumer Assessment of Healthcare Providers and Systems (CAHPS) or other patient experience survey results and/or quality reporting data disaggregated by patient/member demographics

Area/Domain	Supplemental Information
Quality	- For carriers and providers: most recent quarterly/annual CAHPS or other patient experience survey results prior to transaction - For CCOs: most recent version of the Transformation Quality Strategy (TQS) and quality incentive metric performance - For Medicare certified providers: most recent quality reporting data prior to transaction that reflects performance on full patient population for all applicable CMS quality reporting program measures - For relevant entities: narrative around quality improvement strategy or projects and summary of performance on included quality indicators from most recent submission for accreditation to NCQA, PCPCH or Joint Commission - Most recent data on patient/member complaints and grievances

* HCMO promotes the collection of REALD-compliant data but will accept all demographic information currently collected.
** Culturally and Linguistically Appropriate Services (CLAS) are defined as effective, equitable, understandable, and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy, and other communication needs. Information about national CLAS standards can be found on the Health and Human Services (HHS) website.

Decision Criteria

HCMO will adhere to the criteria for approval outlined in OAR 409-070-0055 and OAR 409-070-0060. Tables 3 and 4 below map these criteria to HCMO's analytic domains. Findings from analysis of each domain will be considered in unison, and no a-priori weights will be applied to domain-specific results when arriving at a decision.

Table 3: Domain Relevance to OAR Criteria for Approval following Preliminary Review

OAR Criteria for Approval following Preliminary Review	Domain Relevance			
At least ONE must apply:	Cost	Access	Equity	Quality
In the interest of consumers and is urgently necessary to maintain the solvency of an entity	●	●	●	●
Unlikely to substantially reduce access to affordable health care in Oregon	●	●	●	
Likely to meet the criteria set forth in OAR 409-070-0060*	●	●	●	●
Not likely to substantially alter the delivery of health care in Oregon	●	●	●	●
Comprehensive review is not warranted given the size and effects of the transaction	●	●	●	

Table 4: Domain Relevance to OAR Criteria for Approval following Comprehensive Review

OAR Criteria for Approval following Comprehensive Review	Domain Relevance			
	Cost	Access	Equity	Quality
ALL must apply:				
No substantial likelihood of anticompetitive effects not outweighed by benefits in increasing or maintaining services to underserved populations	●	●	●	●
No substantial likelihood of being contrary to law*				
No substantial likelihood of jeopardizing the financial stability of a health care entity involved in the transaction	●			
No substantial likelihood that the transaction would otherwise be hazardous or prejudicial to consumers or the public	●	●	●	●
At least ONE must apply:				
Reduces growth in patient costs in accordance with health care cost growth targets under OAR 442.386 or maintains a rate of cost growth that exceeds the target that the entity demonstrates is in the public interest	●	●	●	●
Increases access to services in medically underserved areas		●	●	
Rectifies historical and contemporary factors contributing to a lack of health equity or access to services		●	●	
Improves health outcomes for residents of this state		●	●	●

*HCMO may rely on an assessment by the Department of Justice during preliminary review of whether the transaction is likely to be contrary to law.

Outcomes and Analyses

This section describes, for each domain, the key outcomes HCMO will use to assess performance and provides an overview of the methods that may be used to determine the likely impact of the transaction. Where possible, the description distinguishes between analyses performed during preliminary review versus comprehensive review.

Market Definition

Definition of the primary service area (PSA) of each health care entity involved in the transaction is fundamental to subsequent analyses. HCMO will use the methodology described in Appendix C to determine the zip codes that comprise the PSA(s) of all relevant entities. This geographic definition is used to identify other competing service providers operating in the region and the Oregon population potentially impacted by the transaction. This information supports several subsequent analyses:

- **Market share.** What share of total patient volume or revenues across comparable health care entities in the geographic service area is attributable to each of the entities?
- **Market concentration.** Calculating the Herfindahl-Hirschman Index (HHI) from market shares, how concentrated or competitive is the market?
- **Impacted population.** What are the demographic and socioeconomic characteristics of the people living in the PSA? Does this population have unique health needs?
- **Market geography.** Does the geography of the region present barriers to accessing services?

Cost

HCMO will assess current performance and the likely impact of the transaction on four broad cost outcomes: market share, prices, spending, and financial condition. The below subsections describe the assessment questions and analytic methods HCMO expects to use for current performance and impact analyses, respectively.

Current Performance

- **Prices.** How do the entities' prices for health care services compare to similar entities or other reference datasets?
- **Spending.** How do the entities' total expenditures for health care services compare to similar entities?
- **Financial condition.** What is the financial condition of the entities, including revenues, profitability, and ability to meet financial obligations? Are any of the entities facing an immediate risk of insolvency?

A list of potential measures for each outcome is provided in Appendix A.

Market shares will be calculated in aggregate across all health care services offered by the entities and disaggregated by payer and type of service. For example, in the case of a hospital system, market shares may be calculated for inpatient versus outpatient services and by Major Diagnostic Category (MDC). For a physician group, market shares may be calculated by specialty (primary care, cardiology, oncology, etc.).

For preliminary reviews, prices will be calculated based on allowed and paid amounts from claims or other publicly available pricing data. For hospitals, HCMO may rely on existing Hospital Payment Reports (also known as SB 900 reports) for common inpatient and outpatient procedures. Where possible, relative prices will be calculated separately for each payer and standardized to account for differences in service volume, service mix, patient acuity, and insurance product type. HCMO will examine relative prices in aggregate across all services, by place of service, and by type of service. HCMO may request additional data on pricing (including bonus and performance payments) from the entities when carrying out a comprehensive review.

For price outcomes, HCMO's analysis will focus on the commercial market, where prices for health care services are determined by negotiations between payers and providers. While consolidation may affect pricing in other markets (e.g.,

Medicaid) as well, the commercial market is likely to be more directly impacted.

If any of the entities claim to be facing an immediate risk of insolvency, HCMO will perform an initial assessment of the financial condition of the entity in question as part of the emergency review (if requested) or preliminary review. In the absence of insolvency risk, comprehensive reviews are required by OAR 409-070-0060 to include an assessment of the likelihood that the transaction would jeopardize the financial stability of one of the health care entities.

Impact Analysis

Assessment of the cost impacts of the transaction will examine how each of the outcomes are likely to change due to the transaction.

- **Market share.** How concentrated is the health care market in which the entities operate? How (if at all) will concentration change as a result of the transaction?
- **Prices.** How (if at all) will the transaction affect the prices consumers (e.g., patients, members) or payers (e.g., insurers, employers, and governments) pay for health care services?
- **Spending.** How (if at all) will the transaction affect total health care expenditures for the entities and the state as a whole?
- **Financial condition.** How (if at all) will the transaction impact the financial condition of the entities? If there is an immediate risk of insolvency, is the transaction likely to significantly reduce this risk? In the case of an acquisition, will the transaction reduce the financial security of the acquired entity?

HCMO will consider results across all four outcomes in arriving at a finding on the overall cost impacts of the transaction. Appendix B details the approaches HCMO will use to assess likely impacts in the cost domain. These methods include concentration (Herfindahl-Hirschman Index) analysis, diversion analysis, Willingness-to-Pay (WTP), merger simulation, and analysis of potential efficiencies from integration.

Access

HCMO will assess current performance and the likely impact of the transaction on three broad access outcomes: availability of services, payer mix, and patient demographics. The below subsections describe the assessment questions and analytic methods HCMO expects to use for current performance and impact analyses, respectively.

Current Performance

- **Availability of services.** What is the volume of services (e.g., primary, specialty, behavioral health, oral health, emergency, urgent care, inpatient/outpatient, maternity, etc.) provided by the entities? How does this compare to overall utilization of these services in the geographic service area? What is the ratio of service utilization/provider counts to population?
- **Payer mix.** What is the payer mix of the entities? How does this compare to the overall population in the geographic service area and to other nearby provider organizations?
- **Patient demographics.** What is the composition of the patient/member population based on race/ethnicity, gender, language, disability status, income/social determinants of health, and medical/behavioral health complexity? How does this compare to the overall population in the geographic service area and to other health care entities?

A list of potential measures for each outcome is provided in Appendix A.

Impact Analysis

- **Availability of services.** What is likely impact of the transaction on the volume of services (e.g., primary, specialty, behavioral health, oral health, emergency, urgent care, inpatient/outpatient, maternity, etc.) provided by the entities?
- **Payer mix.** What is likely impact of the transaction on the payer mix of the entities?
- **Patient demographics.** What is the expected impact of the transaction on the demographics of the population served by the entities?

HCMO will consider impact analysis results across all four measures in arriving at a finding on the overall access impact of the transaction. To assess impacts on access measures, HCMO will consider factors such as the entities' current performance on access measures, any plans to consolidate service lines, or any plans to improve availability of services, shift payer mix, or enhance access for particular populations. HCMO will also consider any concerns about adverse impacts on access outcomes voiced by members of the public, specifically by community members within the geographic service area of the entities.

For comprehensive reviews, HCMO may request to review the entities' plans and proposals in the context of integration planning. Of particular interest would be the level of detail of these plans or proposals (for example, inclusion of specific locations for expansion, assessments of provider capacity, number of clinicians needed, resource commitments, and timelines). In addition, HCMO may rely on financial analysis of service line or facility-level profitability to assess the potential for access reductions, as profitability is likely to be a factor in any decision to discontinue services or shift the location of services. HMCO may convene a CRB to provide input on potential access impacts. Where possible, HCMO may also rely on retrospective quantitative analysis of previous transactions involving the relevant entities to assess impacts of those transactions on access.

Equity

HCMO will assess current performance and the likely impact of the transaction on four broad equity outcomes: equitable access, equitable quality, community engagement, and equity-enhancing services. The below subsections describe the assessment questions and analytic methods HCMO expects to use for current performance and impact analyses, respectively.

Current Performance

- **Equitable access.** How does patient or member utilization of the entity's services vary by race/ethnicity, gender, language, disability status, income, and other characteristics? How (if at all) does utilization among populations experiencing health inequities (e.g., low-income individuals, racial/ethnic groups, people with disabilities, LGBTQ+, people with limited English proficiency) differ from that of other patients or members? How does this compare to other similar health care entities?
- **Equitable quality**. How does the entity's performance on quality measures vary by race/ethnicity, gender, language, disability status, income, and other characteristics? How (if at all) does care quality for populations experiencing health inequities (e.g., low-income individuals, racial/ethnic groups, people with disabilities, LGBTQ+, people with limited English proficiency) differ from that of other patients or members? How does this compare to other similar health care entities?
- **Community engagement:** What is the extent of the entities' investment in the communities they serve? How much do they spend on community-level initiatives to address health inequities and social determinants of health? What is the ratio of this spending to operating profits? How do the entities involve the community in the decision-making process for such investments?
- **Equity-enhancing services.** Do the entities provide services that promote health equity, such as preventive services, coordination with social services, services provided by community/traditional health workers, culturally

appropriate services, chronic disease management services, and translation/interpretation services?

A list of potential measures for each outcome is provided in Appendix A. For assessing equitable quality and access measures, preference during preliminary review will be placed on claims-based measures whose results can be disaggregated by population demographics available within existing data sources, including race, ethnicity, age, language, gender, and disability status. Additional information may be obtained from existing health equity or community benefit reporting, community health assessments, etc. For comprehensive reviews, HCMO may use additional data sources such as workforce data and information on referrals to community-based organizations.

Impact Analysis

- **Equitable access.** How will the transaction affect the entities' provision of services for populations experiencing health inequities, overall and relative to other populations?
- **Equitable quality**. How will the transaction affect the entities' performance on quality measures for populations experiencing health inequities, overall and relative to other populations?
- **Community engagement:** What is the likely impact of the transaction on the level of investment in the entities' local communities, particularly as it pertains to initiatives to address health inequities and social determinants of health? How will the transaction affect the entities' ability to respond to community needs?
- **Equity-enhancing services.** What is the likely impact of the transaction on the entities' provision of services that promote health equity?

HCMO will consider impact analysis results across all four measures to arrive at a finding on the overall equity impact of the transaction. To assess these impacts, HCMO will consider factors such as the entities' track record in addressing health inequities (as measured by the analysis of current performance), integration plans post-transaction, and any health equity plans or assessments developed in connection with the transaction. Of particular interest would be the level of detail of such plans (for example, identification of priority populations and services, inclusion of specific locations for expansion, assessments of provider capacity and workforce representation, number of clinicians needed, resource commitments, and timelines). Any consolidation of service lines or facility closures resulting from the transaction would be concerning if the changes are likely to disproportionately affect populations experiencing health inequities. Additionally, HCMO will consider whether the transaction brings a shift in management from the local/facility level to a higher organizational level (e.g., system). This may affect the entities' ability to provide services that are responsive to community-level socioeconomic and demographic characteristics, as well as their ability to identify effective strategies for addressing health inequities.

HCMO will also consider any concerns about impacts on equity outcomes voiced by members of the public, specifically by community members within the geographic service area of the entities. For comprehensive reviews, HCMO may convene a CRB or conduct interviews with representatives of priority population groups or community-based organizations to obtain input on potential equity impacts. (Please refer to HCMO sub-regulatory guidance: Criteria for Community Review Boards.[5])

Quality

HCMO will assess current performance and the likely impact of the transaction on three broad quality outcomes: clinical processes, patient outcomes, and patient experience. The below subsections describe the assessment questions and analytic methods HCMO expects to use for current performance and impact analyses, respectively.

Current Performance

- **Clinical processes.** How do the entities perform on quality measures related to clinical processes? How does this compare to the statewide average or national benchmarks?
- **Patient outcomes.** How do the entities perform on quality measures related patient outcomes? How does this

[5] Guidance is available at https://www.oregon.gov/oha/HPA/HP/HCMOPageDocs/Draft-Community-Review-Board-Criteria-20220121.pdf.

compare to the statewide average or national benchmarks?

- **Patient experience.** How do the entities perform on quality measures related to patient experience? How does this compare to the statewide average or national benchmarks?

A list of potential measures for each outcome is provided in Appendix A. For preliminary reviews, HCMO will focus on measures that can be calculated from readily available administrative data (e.g., claims), publicly available reports, scorecards, or rankings, and measures already calculated at the entity-level for quality reporting purposes. For comprehensive reviews, if there are concerns about adverse quality impacts, HCMO may request additional data from the entities, such as Electronic Health Record (EHR) extracts or entity administered Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey data.

HCMO will also consider the entities' participation and performance in national or statewide care delivery transformation efforts, as well as participation in quality-based risk contracts. For comprehensive reviews, HCMO may request and review additional documentation from the entities on quality improvement activities, such as:

- Quality improvement plans
- Implementation of quality tracking/improvement systems
- Governance for quality management
- Participation in population health management programs
- Electronic health record use and interoperability

Impact Analysis

- **Clinical processes.** What is the likely effect of the transaction on performance on quality measures related to clinical processes?
- **Patient outcomes.** How might the transaction impact performance on quality measures related patient outcomes?
- **Patient experience.** How might the transaction impact performance on quality measures related patient experience?

HCMO will consider impact analysis results across all four measures in arriving at a finding on the overall quality impact of the transaction. At the preliminary review stage, HCMO will assess how any potential anti-competitive effects of the transaction identified under the cost domain might affect the entities' incentives for quality improvement or quality-enhancing innovation. HCMO will also consider the entities' track record in delivering high quality health care services (as measured by the analysis of current performance) and any concerns about adverse impacts on quality outcomes voiced by members of the public, specifically by community members within the geographic service area of the entities.

For comprehensive reviews, HCMO may request to review the entities' plans and proposals for integration of clinical or administrative operations post-transaction. These would be relevant to assessing the degree of integration or coordination in the production of health care services that would result from the transaction. They would also be informative for understanding quality improvement initiatives planned as part of integration activities. Based on these plans and the entities' current performance on quality, HCMO would consider the impact of the transaction on quality improvement opportunities and the development of quality improvement initiatives through access to a shared pool of capital, patients and knowledge. Of particular interest would be the level of detail of these plans or proposals (for example, inclusion of specific service lines, assessments of quality improvement opportunities, required platforms and systems, resource commitments, and timelines). HCMO may interview representatives of the entities to obtain additional information on such plans and their proposed implementation. HMCO may also convene a CRB to provide input on potential impacts of the transaction on patient experience. In cases where an entity has engaged in a similar transaction previously, HCMO may perform statistical analyses to assess whether the previous transaction was associated with any adverse effects on quality.

Follow-up Reviews

HCMO is statutorily required to evaluate the impact of each transaction one, two, and five years after closing. Analyses performed during the preliminary or comprehensive review of the proposed transaction will be revisited to assess for any changes likely driven by the transaction. These follow-up reviews will focus on several key areas:

- **Conditions for approval.** HCMO will gather information and perform analyses to verify that all entities are meeting any conditions attached to transaction approval. Examples include confirming that facilities remain operational, rates of service access are being maintained, costs have not significantly increased, or that quality of care has not declined.
- **Commitments in the notice.** Transaction approval may be predicated on statements or commitments presented in the notice itself, particularly around access and cost. Follow-up reviews will confirm whether entities are upholding those commitments, for example maintaining a similar payer mix among patients served.
- **Areas of concern.** Preliminary or comprehensive review may identify issues that do not contradict conditions for transaction approval but do raise concerns for consumers, for example existing poor quality of care from a provider or limited access to services within a region. HCMO may determine that these issues are unlikely to be changed by the given transaction, or improvement in these areas might not be attached as a condition to approval. Follow-up analyses can provide transparency around the entities' independent efforts to make improvements to service delivery.
- **Post-transaction changes.** Follow-up reviews will assess what other changes have occurred within the entities post-transaction that may impact delivery of health care services in the future, for example organizational restructuring, changes to leadership or staffing, closing or downsizing of facilities or lines of service, or reduced resources to programs meeting special health care needs. Impacts of these changes may not be detectable in early follow-up reviews but may be identified as areas of concern to revisit in subsequent analyses.

HCMO may request additional information from entities to support follow-up review. This may include updates to supplemental items requested during preliminary or comprehensive review. Given the time lag in administrative data, HCMO may also request more current data collected by the entities to more accurately measure short-term impacts of the given transaction.

Identifying Comparator Entities

This section describes HCMO's approach to identifying comparator entities for purposes of assessing relative performance and market shares. This will be based on three main considerations: geographic service area, facility type (in the case of provider organizations), and type of service.

Geographic Service Area

To identify comparator entities, HCMO will first define the geographic area in which the majority of the entities' customers (patients, members) reside.

For provider organizations, HCMO will calculate the primary service area (PSA) as the set of contiguous of zip codes around the provider location from which the entity draws 75% of its patients.[6] Appendix C provides an example of this

[6] The 75% threshold is used by the U.S. Department of Justice and Federal Trade Commission to calculate PSAs for antitrust oversight of Medicare Accountable Care Organizations (ACOs). The federal agencies note that, while the PSA does not necessarily correspond to a "relevant market" for antitrust purposes, it is a useful screen for evaluating competitive effects of ACOs. (See Federal Trade Commission/Department of Justice, Statement of Antitrust Enforcement Policy Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program, October 28, 2011, available at https://www.justice.gov/sites/default/files/atr/legacy/2011/10/20/276458.pdf.)

calculation for a general acute care hospital. HCMO may rely on commonly used, pre-existing service area definitions, if these are roughly consistent with the service area identified by the 75% method.

For insurance carriers and CCOs, HCMO will use plan service areas and CCO service areas, respectively.

Facility Type

HCMO will identify the type(s) of facilities at which the provider organization's services are offered (e.g., inpatient acute care hospital, specialty hospital, ambulatory care center, clinic.) In selecting comparator hospitals, HCMO may also consider other commonly accepted classifications, such as the level of trauma care provided, designation as a teaching hospital, safety-net hospital, or critical access hospital.

Type of Service

HCMO will consider the type(s) of service(s) offered by the health care entity. For inpatient facilities (e.g., hospitals), a service type is defined as Major Diagnostic Category (MDC). For physicians, a service type is the physician's primary specialty (primary care, cardiology, oncology, etc.) For outpatient facilities, service types would be defined as categories of services based on procedure (CPT/HCPCS) codes.

For payers, HCMO will consider factors such as the type of plan offered (e.g., POS, PPO, or HMO) and the market segments served (e.g., commercially insured, Medicare, Medicare Advantage, Oregon Health Plan, or individual/marketplace).

Collaboration with Other State Agencies and Programs

HCMO will coordinate and collaborate on an as-needed basis with other state agencies and programs that oversee health care entities in Oregon in reviewing material change transactions. Coordination may be required when there is overlap of agencies' oversight responsibilities. Additionally, communication or collaboration for the purpose sharing expertise and data will facilitate expedient, high-quality reviews, avoid duplication of work, and reduce the need for data requests from the entities. Where inter-agency sharing of information is needed, HCMO will share a minimum necessary information in accordance with regulations or contractual agreements governing privacy and confidentiality.

- **Department of Consumer and Business Services (DCBS).** HCMO will collaborate with DCBS on any transaction involving at least one domestic insurance carrier. HCMO and DCBS will each carry out their own review, and HCMO will provide a recommendation to DCBS, who will decide the outcome of the review.
- **Department of Justice (DOJ).** HCMO may rely on legal advice and analysis by DOJ as needed. Depending on the scope of work and internal capacity, DOJ may contract with an external law firm for legal counsel. (Please refer to HCMO's sub-regulatory guidance: Criteria for OHA Use of Outside Advisors for Material Transaction Review.[7])
- **OHA Office of Actuarial and Financial Analytics (OAFA).** For any transaction involving a CCO, HCMO will coordinate its review activities with OAFA to avoid duplication of effort. HCMO and OAFA will come to a mutually acceptable decision on the outcome of the review.
- **Other OHA Programs, including Cost Growth Target, Hospital Reporting, and All Payer All Claims (APAC) Programs.** HCMO will consult with the Cost Growth Target, Hospital Reporting, and APAC programs within OHA regarding data and quantitative methods, particularly relating to measures of cost and hospital performance. Program staff may provide analytic support on HCMO reviews and share data collected by the programs on an as-needed basis. HCMO may also consult with the Certificate of Need (CN) program if the transaction involves facility or service expansion projects potentially subject to CN rules.

[7] Guidance is available at https://www.oregon.gov/oha/HPA/HP/HCMOPageDocs/HCMO-Outside-Advisors.pdf.

Appendices

A. Measures

Table A1 displays a menu of measures HCMO may use to analyze current performance and assess impacts of the transaction in each domain. Not all of these will be applicable to each transaction, and exact definitions will depend on the specifics of the health care services in question. This list is not exhaustive; HCMO may incorporate other measures not included here. This list will be updated periodically as additional measures or new data sources are considered during the course of HCMO reviews.

To measure outcomes at the entity level, HCMO will use National Provider Identifier (NPI) information from the NPI form submitted with the notice, supplanted with additional NPI information available to the Oregon Health Authority (e.g., from provider enrollment databases).

Table A1: HCMO Outcome Measures Menu

Domain	Outcome	Measure
Cost	Market share	Share of inpatient general acute care discharges (by payer, specialty) Share of outpatient visits (by payer, specialty) Share of adult primary care visits (by payer) Share of specialty provider visits (by payer) Share of enrollment in large group/small group/individual market(s) Share of Net Patient Service Revenues (by payer)
	Price	Prices for commercial inpatient services, relative to other similar entities (or state average), by payer (based on paid/allowed amounts) Prices for commercial outpatient services, relative to other similar entities (or state average), by payer Prices for commercial services relative to Medicare Bonus and performance payments Out of pocket payments Premiums
	Spending	Total cost of care (PMPM) Total resource use (PMPM) Annual spending growth (overall and by major spending category) Health status adjusted total medical expense (HSA TME) for patients attributed to each entity's PCPs, by payer Percentage of spending in value-based-payment contracts (by LAN category)
	Financial condition	Payer mix (Medicaid, Medicare, commercial, individual/marketplace, charity care) Operating revenues and expenses (per discharge or other unit) Other income and expenses Operating margin Total margin Total net assets on hand Readily available cash/investments Current ratio Debt-to-capital ratio Average age of plant Medical loss ratio

Domain	Outcome	Measure
		Equity & consolidated investments Profitability by service line or facility
Quality	Clinical processes	Participation and performance in national/statewide care delivery transformation efforts Revisits for frequent Emergency Department (ED) users Participation in quality-based risk contracts Medical home (e.g., PCPCH tier) Integration of behavioral health/oral health care with physical health care (e.g., avoidable ED visits, avoidable hospitalization, follow-up after hospitalization)
	Patient outcomes	Patient safety (falls, healthcare-associated infections, medication safety, etc.) All-cause readmissions Avoidable complications Low value care Prevention/screening (e.g., immunization, cancer screening, well-care visits, contraception use) Chronic disease management Maternity (e.g., low-risk caesarian delivery, postpartum care)
	Patient experience	Overall rating of health care/provider/health plan (CAHPS) Getting care quickly (routine/urgent care) (CAHPS) Staff explained medicines/gave patient discharge information Customer care service Patient/ consumer complaints Language access to culturally responsive services
Access	Availability of services	Number of visits for/ number of providers offering - Primary care - Specialty care - BH care (including SUD treatment) - Dental care/ oral health - Emergency care - Urgent Care - Inpatient (acute/non-acute) - Outpatient (including ambulatory surgical centers) - Prenatal/maternity Provider to population ratios - Primary care - Pediatric - Geriatric - Nurses - Specialists - Counselors and therapists Provider network size, composition Provider direct patient care FTE Number of PCPs accepting new patients
	Payer mix	Payer mix based on gross patient service revenue (GPSR)

Domain	Outcome	Measure
	Patient demographics	Case mix index (CMI) Composition of patients/members served by: - Race/ethnicity - Sex/gender - Language - Income level - Disability status - Medical/behavioral health complexity
Equity	Equitable access	Service utilization stratified by race, ethnicity, age, language, gender, disability status, etc. Access disparities between populations experiencing health inequities (low income, racial/ethnic groups, LGBTQ+, people with disabilities, people in rural areas, HNA populations) and other populations. Workforce diversity/representation of community (by occupation): - Language - Race/Ethnicity
	Equitable quality	Quality domain measures stratified by race, ethnicity, age, language, gender, disability status, etc. Quality disparities between populations experiencing health inequities (low income, racial/ethnic groups, LGBTQ+, people with disabilities, people in rural areas, non-English speaking, HNA populations) and other populations. For example, - Avoidable hospitalization - Avoidable ED visits - Readmissions within 30 days
	Community engagement	Community Benefit Spending Percentage of profits allocated to community-level investments Established relationships or collaborations with community-based organizations
	Equity-enhancing services	Volume of services relative to population served: - Services related to the treatment of a chronic condition - Prevention services, including non-clinical services - Pregnancy -related services - Culturally appropriate services - Translation and interpretation services - Care navigation/coordination services - Services provided by Traditional Health Workers or Community Health Workers - Screening for social needs - Referrals to community-based organizations for social services

Approach to Selection of Quality and Equity Measures

HCMO will seek to apply consistent and standardized metrics to health plan, health system and provider organization performance to assess current performance and potential impacts in each domain. Hundreds of validated and standardized measures exist to quantify processes and outcomes regarding safety, quality, access, and patient experience across all applicable health care entities. Needing to balance thoroughness with expediency, HCMO will select key measures that can serve as broader indicators of the overall ability of an entity to equitably provide high quality care. Within the state of Oregon, several committees under the purview of the Oregon Health Policy Board have been tasked to consolidate and

prioritize a menu set of measures to drive quality improvement, systems transformation and health equity across sectors, and several programs have successfully or are currently utilizing these measures to drive process efficiencies and better health outcomes for Oregonians. HCMO will borrow from these measure sets and associated technical specifications whenever possible. During preliminary review, preference will be placed on metrics that can be constructed using readily available data sources (e.g., APAC, hospital discharge data) and measures already calculated at the entity-level for other reporting purposes (e.g., CCO metrics, hospital quality metrics, Medicare metrics, NCQA accreditation data, etc.).

B. Methods for Analyzing Cost Impacts

This appendix describes the approaches HCMO may use to assess the likely impact of a material change transaction in the cost domain. The specific facts of the proposed transaction, the availability of reliable data, and time constraints associated with preliminary and comprehensive review periods will affect the analytic methods for a given transaction.

Concentration (HHI) Analysis

Concentration is a measure of the degree of competition in a market; highly concentrated markets are generally characterized by a smaller number of firms and higher market shares for individual firms. (See Glossary for additional definitions.) When a transaction involves health care entities offering similar products or services (a "horizontal" transaction), the level of concentration in the market and the change in concentration resulting from the transaction is useful as an initial screen for potential anticompetitive effects.

Market concentration will be measured using the Herfindahl-Hirschman Index (HHI), a measure commonly used by federal and state antitrust enforcement agencies. HHI is calculated as follows:

$$HHI = (S_1^2 + S_2^2 + S_3^2 + \cdots S_n^2)$$

Where S_1 is market share (in percentage points) of firm 1 and n is the total number of competitors in the market. By summing the squared values of market shares, the HHI gives greater weight to firms with larger market shares.

Transactions occurring in concentrated markets and those involving a significant change in concentration are more likely to have adverse effects on competition and lead to price increases. For horizontal transactions under preliminary review, HCMO will use the HHI thresholds specified in the U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines[8] to identify transactions that may have anticompetitive effects (see Table B1 below). Transactions meeting the HHI thresholds for "high" or "moderate" levels of concern would indicate the need for a comprehensive review.

Table B1: HHI Thresholds

Post-transaction HHI	HHI Change	Level of Concern
> 2,500	> 200	High (if both). Presumed likely to enhance market power:
> 2,500	>= 100 and <= 200	Moderate (if both). Potentially raises significant competitive concerns and often warrants scrutiny.
>= 1,500 and <= 2,500	>= 100	Moderate (if both). Potentially raises significant competitive concerns and often warrants scrutiny.
< 1,500	< 100	Low (if either). Unlikely to have adverse competitive effects and ordinarily requires no further analysis.

There may be instances where a transaction does not lead to an increase in HHI but nevertheless has the potential to reduce competition. One such case is "cross-market" consolidations, for example, a hospital system acquiring a hospital outside its service area. If both parties negotiate with a common buyer (e.g., an insurer), and customers of the buyer (e.g., large employers) value the inclusion of both parties in their bundle, the consolidated entity may be able to negotiate higher

[8] U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines, August 19, 2020, available at https://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf.

prices for hospital services.[9] In this example, HCMO may determine that a comprehensive review is needed so that further analyses (such as diversion analysis and Willingness-to-Pay, described below) can be conducted.

Diversion Analysis

HCMO may use diversion analysis to assess the likely price effects of a transaction under comprehensive review. The diversion ratio seeks to measure the impact on the probability that consumers will choose a given product or service if a competing product or service is excluded from their choice set (e.g., due to consolidation). It is commonly used by federal antitrust agencies to screen for anti-competitive effects of hospital mergers.[10] Using the example of a hospital merger, diversion analysis quantifies the extent to which patients consider the merging hospitals to be substitutes for one another. This, in turn, affects the bargaining power of the merged entity in reimbursement rate negotiations with insurers. When hospitals are close substitutes, the costs to an insurer of failing to reach agreement with the merged entity (via reduced value of its provider network) are higher than the costs of failing to reach agreement with either of the merging hospitals individually, resulting in higher reimbursement rates compared to pre-transaction rates.

The diversion ratio from hospital k to hospital l is:

$$d_{kl} = \frac{\left(\sum_i prob_{il\backslash k} - \sum_i prob_{il}\right)}{\sum_i prob_{ik}}$$

Where $prob_{il}$ is the fitted probability that patient i is treated at hospital l, $prob_{ik}$ is the fitted probability that patient i is treated at hospital k, and $prob_{il\backslash k}$ is the fitted probability that patient i is treated at hospital l under the hypothetical exclusion of hospital k. In this example, the diversion ratio is derived from estimating a regression model of patient hospital choice using hospital discharge data. This parameter can be used to calculate the value of diverted sales; if this value is small (e.g., 5% or less), the merger is unlikely to lead to significant price increases.[11]

Willingness-to-Pay (WTP) Analysis

Another possible approach for assessing price impacts from a merger or acquisition under comprehensive review is Willingness-to-Pay (WTP) analysis. WTP is a measure of provider market power based on a bargaining model of provider-insurer price negotiation. It assumes that when competing providers merge, they negotiate on an all-or-nothing basis (i.e., the insurer must contract with both providers in order to contract with either provider). When this happens, the insurer's cost of failing to reach agreement with the merged entity (in terms of welfare loss for the insurer's members) is higher than the sum of losses associated with failing to reach agreement with each provider individually. This increases the bargaining power of the merged entity and leads to higher reimbursement rates.

WTP is measured as the change in member welfare (consumer surplus) associated with the merged provider's inclusion in an insurer's network. The increase in market power associated with the merger is the net change in WTP associated with the combination of the two providers. WTP is obtained by estimating a regression model of patient provider choice.[12]

Merger Simulation

Merger simulation involves regression analysis to estimate the equilibrium price effect of a merger. Such approaches have been used in federal investigations of hospital mergers. For example, Farrell (2011) describes a simulation model used by the Federal Trade Commission that regresses case-mix adjusted prices on WTP per discharge and measures of cost. Like diversion and WTP analysis, merger simulation requires significant time and resources and could therefore only be conducted under a comprehensive review.

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[9] See for example, Dafny et al (2019).

[10] See for example, Farrell et al (2011) and U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines, August 19, 2020, available at https://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf.

[11] The Horizontal Merger Guidelines generally define "small" as 5% or less.

[12] See Vistnes & Town (2001) and Dranove & Sfekas (2009).

Analysis of Vertical Transactions

The diversion analysis and WTP methods were both developed for analysis of horizontal transactions and do not necessarily apply to vertical consolidation (for example, the acquisition of a physician group by a hospital). Federal antitrust agencies have not yet settled on guidelines for assessing market power and price effects of vertical transactions.[13]

For vertical transactions, HCMO will perform an HHI analysis for both upstream and downstream markets as part of preliminary review. Although HHI is not necessarily indicative of competitive concerns in the case of vertical consolidation, it remains relevant for assessing likely competitive effects. Anticompetitive effects from vertical mergers are less likely if neither of the entities has significant market power prior to consolidation. Furthermore, a vertical merger may result in a horizontal effect due to higher concentration in one of the affected markets. For example, a hospital's acquisition of multiple physician practices may reduce the number of competitors in the local physician services market.

For comprehensive reviews, HCMO will consider other options for assessing price effects from vertical transactions, such as measuring the likelihood of foreclosure and raising rivals' costs. Merger simulation may also be used. Foreclosure occurs when an upstream merged firm refuses to supply rivals of its downstream division with an input. In the example of acquisition of a physician group by a hospital, two types of foreclosure are possible: foreclosure of rival hospitals from access to physician services, and foreclosure of rival physician practices from hospital services. High diversion ratios and a high margin for downstream operations relative to upstream operations have been found to be associated with higher likelihood of foreclosure.[14] To assess the likelihood of foreclosure, HCMO may thus calculate the margin for hospital services relative to physician services, diversion ratios between the acquiring hospital and competing hospitals, and diversion ratios between the acquired physician group and other competing groups.

Raising rivals' costs is a less extreme form of foreclosure wherein the upstream division of the merged firm charges downstream rivals more for the input. HCMO may consider diversion ratios and relative margins as indicators of the likelihood of raising rivals' costs.

In the case of a hospital acquisition of a provider group, HCMO will also assess the ability of the hospital to obtain higher facility fees for physician services due to the transaction.

Potential Efficiencies from Integration

Any claim by the entities that the transaction would generate substantial cost savings (e.g., from economies of scale) would need to be substantiated by the entities and possibly reviewed by an outside advisor as part of a comprehensive review. HCMO may request to review the entities' plans and proposals for integration of clinical or administrative operations post-transaction. These would be relevant to assessing the degree of integration or coordination in the production of health care services that would result from the transaction and resulting opportunities for realizing any cost savings. Based on these plans and the entities' current performance on cost, HCMO would consider the impact of the transaction on opportunities for cost reduction and the likelihood that anticipated efficiencies would materialize. Of particular interest would be the level of detail of related plans or proposals (for example, inclusion of specific service lines, assessments of cost reduction opportunities, systems integration plans, resource commitments, and timelines). HCMO may interview representatives of the entities to obtain additional information on such plans.

In the case of vertical transactions, HCMO will also consider opportunities for vertical integration to reduce transaction costs (for example, associated with contracting), facilitate communication and coordination, and harmonize incentives of the

[13] In September 2021, the Federal Trade Commission and U.S. Department of Justice withdrew their guidelines for vertical mergers published in 2020. The agencies committed to continue working to review and update merger guidelines to reflect current economic theory and the dynamics of modern markets. (See https://www.ftc.gov/news-events/press-releases/2021/09/federal-trade-commission-withdraws-vertical-merger-guidelines.)

[14] See Lustig et al (2020).

transacting firms.[15] This may result in lower costs, improved quality, and increased investment and innovation.

More generally, HCMO will consider claims of cost savings from integration efficiencies in the context of the competitive environment facing the entities post-transaction. Anticipated cost savings, if they materialize, do not necessarily translate into lower negotiated rates with insurers or reduced costs for patients.

Financial Analysis

If the entities are requesting an emergency exemption, HCMO will perform an emergency review to determine the financial condition of the entity in question, the risk of insolvency, and the likelihood that the transaction would significantly reduce this risk. In the absence of insolvency risk, for transactions under comprehensive review, HCMO would assess the likelihood that the transaction would jeopardize the financial stability of one of the health care entities (in accordance with OAR 409-070-0060). This might occur, for example, if the acquiring entity holds a significant amount of debt or has a track record of relying heavily on debt financing to grow its operations.

Financial analyses would include a multi-year review of financial performance and credit rating based on standard metrics obtained from profit & loss and balance sheet statements. If an entity has been involved in previous mergers, acquisitions, or other combinations, HCMO may examine the impact of those transactions on the entity's financial condition. When analyzing a proposed transaction involving only carriers, HCMO will coordinate with DCBS to avoid duplication of analyses.

[15] See for example, Salop (2016). One often cited impact of vertical consolidation is the elimination of double marginalization (EDM) benefit. This occurs when a merger allows the downstream firm to acquire the upstream firm's input at a price=marginal cost, giving the downstream firm an incentive to reduce prices after the merger.

C. Example of Primary Service Area Calculation

Primary Service Areas (PSAs) will generally be calculated by service line, subject to data availability. For example, PSAs may be calculated for inpatient general acute care services, inpatient specialty acute care services, outpatient/ambulatory services, primary care services, and other service lines.

To calculate the PSA of a general acute care hospital:

1. For each zip code in Oregon, identify the number of general acute care discharges from the hospital of interest by patient zip code of residence for the most recent year(s) for which data is available.
2. Rank zip codes by number of discharges.
3. Starting with the facility's zip code, add contiguous zip codes to the map based on discharge volume rank. A zip code with a high volume of discharges that is not immediately contiguous with the facility zip code may be permanently excluded from the PSA, or only temporarily excluded until subsequent zip codes are added that fill in the geographical gap.
4. Continue to add zip codes until the total discharge count from zip codes contiguous with the facility constitutes 75% of the hospital's total discharges. The final zip code added to reach 75% of discharges may result in total PSA discharge volume exceeding the threshold.
5. If the resulting PSA completely encircles a zip code or set of zip codes not included in the PSA (due to low discharge volume), add encircled zip codes to the PSA to create a solid geographical area. This may also result in a PSA discharge volume over 75% but creates a more visually coherent geographic service area.

Glossary

Market – A collection of buyers and sellers that enter into agreements to purchase and sell a product or service. Markets are typically defined in terms of product/service and geographic reach (e.g., local, state, national, international, global).

Competition – A situation in a market in which firms or sellers independently strive to attract buyers for their products or services by varying prices, product characteristics, promotion strategies, and distribution channels.

Concentration – A measure of the degree of competition in the market; highly concentrated markets are generally characterized by a smaller number of firms and higher market shares for individual firms.

Market power – Also referred to as monopoly power, the power of a single firm or group of firms to set price profitably above the level that would prevail under competition. Increases in market concentration may confer market power.

Consolidation – The combination of two or business units or companies into a single, larger organization. Consolidation may occur through a merger, acquisition, joint venture, affiliation agreement, etc.

Horizontal consolidation – The combination of two or more business units or companies that formerly competed with one another. In health care, the combination of two hospitals or two insurers would be considered horizontal consolidation.

Vertical consolidation – The combination of two companies or business units in different lines of work or operating at different levels of the supply chain. In health care, the acquisition of an ambulatory care clinic by a hospital or the merger of a health plan with hospital system would be considered a vertical consolidation.

Health equity –As defined by OHA:

Oregon will have established a health system that creates health equity when all people can reach their full health potential and well-being and are not disadvantaged by their race, ethnicity, language, disability, age, gender, gender identity, sexual orientation, social class, intersections among these communities or identities, or other socially determined circumstances. Achieving health equity requires the ongoing collaboration of all regions and sectors of the state, including tribal governments to address:

- *The equitable distribution or redistribution of resources and power; and*
- *Recognizing, reconciling, and rectifying historical and contemporary injustices*.

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