

**Oregon Health Authority**

**Rural Health Reform Initiative**

Summary of Methods and Outcomes of the Rural Health Reform Initiative Workgroup

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## 1. Executive Summary

Pursuant to HB 3650/ORS 414.653(5), the Oregon Health Authority (OHA) was directed to identify any Type A/B hospital, as described in ORS 442.470 (Hospital), that would not be expected to remain financially viable if paid in a manner other than cost based reimbursement (CBR) based on an evaluation made by an actuary retained by OHA.

The Rural Health Reform Initiative (RHRI) Workgroup (Workgroup) was convened by OHA as an advisory body consisting of stakeholders from Oregon Association of Hospitals and Health Systems (OAHS), the Office of Rural Health (ORH), Coordinated Care Organizations (CCOs), and OHA. The purpose of the Workgroup was to develop a recommendation to OHA Administration for each Hospital as to whether they should maintain CBR or move to an alternative payment methodology (APM). OHA selected **Optumas**, an actuarial and strategy consulting firm with specific expertise in publicly-sponsored health and welfare programs. This report is an update to the June 30, 2016 report.

The Workgroup agreed that the basis of the analysis to be used for evaluating the Hospitals would be around three factors as quantified by three independent consultants:

- ▶ The risk to the Hospitals associated with moving to an APM based on an analysis completed by Global Health Payment, LLC.
- ▶ The financial ability of the Hospitals to absorb the additional risk based on an analysis completed by Cleverley and Associates.
- ▶ The demographic characteristics of the communities in which the Hospitals were located based on an analysis completed by the Oregon Office of Rural Health.

**Optumas** contracted with OHA to:

- **Task 1: Provide an independent review of the reports produced by the three consultants:**
  - ▶ Alternative payment methodologies
    - “Assessing the Risk Faced by Rural Hospitals in Oregon of Transitioning to a DRG Based Payment System” by Global Health Payment, LLC
  - ▶ Financial Strength
    - “Financial Strength Index” by Cleverley and Associates
  - ▶ Demographic Characteristics
    - “Areas of Unmet Health Care Need In Rural Oregon Report” by ORH (Travel Distances update provided by Apprise Health Insights)
- **Task 2: Develop and recommend a process to the Workgroup to evaluate each of the 32 Type A/B hospitals using the reports produced by the three consultants**
- **Task 3: Review and present the final results and outcomes of the evaluation process to the Workgroup**

This report provides details on the methods **Optumas** used and the outcomes for each of the tasks, as well as information on the final recommendation of the Workgroup. The report is organized according to the following sections:

Section	Contents
Task 1	Independent Review of Reports
Task 2	Development of Evaluation Method
Task 3	Final Outcome and Workgroup Recommendation
Updated Results	Decision Tree Update
Appendices	Detailed tables and information supporting the three tasks

## 2. Task 1 – Independent Review of Reports

For 2017, **Optumas** relied on the review completed in 2014. **Optumas** contracted with OHA to provide an independent review of the reports produced by the three consultants. At the beginning of the process, **Optumas** met with each of the consultants to discuss:

- ▶ High-level overview of the report
  - Step-by-step methodology
  - Final output format
  - Conclusions from the report
  - Limitations of the report
  - Potential duplication of information between the three reports
- ▶ Data received/utilized for the report
  - Assumptions
  - Exceptions/outliers
  - Source of data
  - Any validation/benchmarks
- ▶ Other relevant information specific to each report

Once the reports were received, **Optumas** met with each of the consultants as needed to help further understand the reports' details. Details about the methods **Optumas** used to review the reports, as well as the outcome of the reviews, are provided below.

### 2.1. Areas of Unmet Health Care Need Report

#### 2.1.1. Overview

The “Areas of Unmet Health Care Need in Rural Oregon Report” is produced by the ORH on an annual basis in support of requirements from Oregon’s Legislature. Its primary function is to designate medically underserved rural areas in Oregon based on a predetermined set of criteria. A designation of “medically underserved” may:

- ▶ Assist in determining practice sites that are eligible for rural state loan repayment recipients (SB 438)
- ▶ Determine exceptions to the state’s rural hospital classification system as it applies to medical staff eligibility for the state’s personal income tax credit program.
- ▶ Assist in determining the distribution of state funds for rural economic development grants (ORS 442.503) and Area Health Education Centers (ORS 352.095)
- ▶ Be used to devise a risk assessment formula for rural hospitals (SB 607)

The Unmet Needs report is a readily available, “off the shelf” report that captures several of the demographic aspects of unmet rural health care need. Therefore, even though it was originally designed to support other needs, the Workgroup elected to utilize this report in its analysis of the rural hospitals. The criteria measured in this report were:

- ▶ Percentage of primary care visits met
- ▶ Ambulatory Care Sensitive Conditions (ACSC) ratio
- ▶ Travel time to nearest hospital

- ▶ Comparative mortality ratio
- ▶ Low birth weight rate

It is important to note that for the purposes of this review, two modifications were made to the original Unmet Needs Report:

- ▶ The variable “travel time to the nearest hospital” was modified by Apprise Health Insights (Apprise). The original metric was specific to a particular service area and was calculated as the travel time from the largest city/town in each rural service area to the nearest city/town with a hospital. Since this RHRI study was done at the individual hospital level, all of the relevant service areas included a hospital within their boundaries. Therefore this variable produced the same score for each hospital, and did not appropriately reflect service areas/hospitals that were more remote or isolated than others. Apprise recalculated this metric as “travel time to the next nearest hospital,” which was calculated as the road distance travel time to the next nearest hospital. This new variable was more relevant to the hospital-specific “isolation impact” in the event that a hospital shuts down.
- ▶ The Unmet Needs report gave equal weighting to the scores for each of the variables and combined them into an aggregate score. The “unmet needs” designation was assigned to any service area with an aggregate score that fell below the statewide average aggregate score. For purposes of this analysis, the statewide average that was used as the benchmark was recalculated to the average of the services areas of the 32 hospitals (not statewide). We refer to this as the “Service Area” average throughout this document.

### 2.1.2. Review and Analysis

The Unmet Needs report included a detailed narrative section that described the methodology and data used to compile the report. Additionally, **Optumas** met with individuals from both the ORH and Apprise to discuss the nuances of the report as well as the modified travel time variable. At a high level, based on the descriptions provided as well as the information gathered from both the ORH and Apprise, the source data and overall calculations used to compile the report seemed reasonable. **Optumas** did not perform a detailed audit of the source data and supporting files. While the results of the report were tested for reasonableness (as described below), any material error in the source data or supporting files could impact the results of this review.

To gain further insight on the Unmet Needs report, **Optumas** selected two additional variables to use as benchmarks. The benchmarks that were chosen were not meant to refute or discredit the results of the Unmet Needs Report. Rather, they served to compliment and strengthen the conclusions that could be drawn from the report. The following benchmarks were used:

- ▶ Federal MUA/MUP Designation:  
Based on certain criteria, areas within Oregon can be federally designated as a Medically Underserved Area (MUA), Medically Underserved Population (MUP), or a Health Professional Shortage Area (HPSA). MUA and MUP designations are determined on the basis of a weighted score using the Index of Medical Underservice (IMU) scale and are based on an overall IMU score of 62.0 or less. The IMU includes four specific variables in determining an underserved area/population:
  - Ratio of primary medical care physicians per 1,000 population
  - Infant mortality rate
  - Percentage of the population with incomes below the poverty level

- Percentage of the population age 65 or over

Designations of MUAs are based on geographic locations whereas a MUP is associated to certain populations within a geographic location. To elaborate, a MUP can be determined based on the following populations:

- Low-Income and/or Medicaid Eligible populations
- Migrant (seasonal) workers
- Linguistically Isolated Groups
- Homeless
- Residents of Public Housing

Comparatively, a population may also be designated as a MUP at the recommendation of a chief executive officer of the state. This extended MUP consideration is based on “unusual local conditions which are a barrier to access to or the availability of personal health service” where these conditions are known and documented. These underserved populations are normally referred to as GOV-MUP.

▶ Federal HPSA Designation:

HPSAs are categorized into primary care, dental, or mental health designations and can be assigned to urban or rural areas, population groups, and medical or public facilities. To qualify as an HPSA, a service area must meet certain thresholds of population to full time equivalent (FTE) provider ratios.

- Primary Care: 3,500:1 or have a population to full-time equivalent primary care physician ratio of less than 3,500:1 but greater than 3,000:1 and have unusually high needs for primary care services or insufficient capacity of existing primary care providers or demonstrate that primary medical professionals in contiguous areas are over utilized, excessively distant, or inaccessible to the population under consideration.
- Dental: 5,000:1 or have a population to full-time equivalent dentist ratio of less than 5,000:1 but greater than 4,000:1 and unusually high needs for dental services or show that dental professionals in contiguous areas are over utilized, excessively distant or inaccessible to the population
- Mental Health: A population-to-core-mental-health-professional ratio greater than or equal to 6,000:1 and a population-to-psychiatrist ratio greater than or equal to 20,000:1 or a population-to-core professional ratio greater than or equal to 9,000:1 or population-to-psychiatrist ratio greater than or equal to 30,000:1.

These federal designations were found using the search engine on the U.S. Department of Health and Human Services website (<http://muafind.hrsa.gov/>).

As described previously, the “unmet needs” designation was assigned to any service area with an aggregate score that fell below the service area average score. Within the context of this RHRI study, **Optumas** cautioned the Workgroup that this assignment algorithm could be problematic for several reasons:

- ▶ Relying on the “service area” average may fail to recognize minimum standards for each of the variables. For example, if the entire state failed to meet certain minimum standards, this methodology could allow some service areas to be designated as areas with “met need” even

though they fall below the minimum standards. Likewise, this methodology could allow some service areas to be designated as areas with “unmet need” even though they exceed the minimum standards.

- ▶ With all variables having equal weight, differences in populations may not fully be accounted for and may artificially influence the results. For example, the Low Birth Weight variable does not account for areas that have little to no births (senior citizens, too few residents, etc.), but it is equally weighted with the other variables. Depending on the magnitude, this example could potentially yield an artificial “met need” designation.
- ▶ Equally weighted variables may not fully account for geographic differences within the service areas. For example, the modified travel time variable does not take into account cross-state hospital access (e.g. OR residents who access hospitals in neighboring states). Depending on the magnitude, this example could potentially designate an area as “unmet need” due to its presumed remoteness.
- ▶ Focusing only on these five variables as the only measure of demographic information may not fully capture all aspects of a hospital’s value to the community. Examples include:
  - Contribution to the local and state economy (employment, federal dollars generated, GDP, etc.)
  - Health and safety contribution
    - ▶ Occupancy levels
    - ▶ Uncompensated care/charity care
    - ▶ Town/county population
    - ▶ Efficiency/health outcomes
  - Efficiency of the current delivery system (What type of facility does the community require? Hospital? Clinic? Etc.)

### 2.1.3. Summary and recommendations

At a high level, the source data and overall calculations used to compile the Unmet Needs Report and the modified travel time variable seemed reasonable. Exclusive reliance on the determination of unmet/met need from the Unmet Needs report as the only source for demographic information may not be appropriate for the RHRI study for several reasons, including:

- ▶ Some variables were not adjusted for differences in demographics and geography of the population
- ▶ Equal weighting may not coincide with the goals of the Workgroup
- ▶ Relying on a formula that benchmarks results against the statewide or service area average ignored minimum standards
- ▶ The five variables included in the Unmet Needs report may be too narrowly focused and not fully capture the hospitals’ value to the community

For these reasons **Optumas** recommended:

- ▶ Moving away from using only the final “unmet/met” designation from the Unmet Needs report, and setting a benchmark value based on renormalized scores for the 32 hospitals that included the revised travel time variable.
- ▶ Considering the use of a hierarchical approach (decision tree) in the evaluation of this variable. The hierarchical approach was adopted by the Workgroup and is described in more detail subsequently in this report.



## 2.2. Financial Strength Index

### 2.2.1. Overview

The Financial Strength Index (FSI) was provided by Cleverley and Associates. Unlike the Unmet Needs report, this report was created specifically to support the RHRI study. Its purpose was to measure the overall financial position of the hospitals based on four key variables:

- ▶ Total Margin
- ▶ Days Cash on Hand
- ▶ Debt Financing Percentage
- ▶ Average Age of Plant

Data was requested from each of the 32 hospitals' financial reports (Annual Statements, etc.) and cost reports to support the analyses. That data was then compiled, summarized into the four variables, and then compared to pre-established targets. The comparison against the target values yielded a normalized score for each of the variables, which was then weighted equally to form the overall FSI score. The components, individual scores, and overall FSI scores were provided to the Workgroup and to **Optumas** at the individual hospital level.

### 2.2.2. Review and Analysis

Cleverley and Associates provided documentation describing the methodology and data used to compile the report. Additionally, **Optumas** met with Cleverley and Associates to discuss the specific details of the report. While **Optumas** did not perform a detailed audit of the source data and supporting files, we did attempt to check for overall reasonability. However, any material error in the source data or supporting files could significantly impact the results of this review. Key features of this report included:

- ▶ Multiple dimensions included in financial reporting (i.e. not just margin)
- ▶ Scores were normalized against certain benchmarks
- ▶ Provided hospital-level details

To gain further insight on the FSI, **Optumas** reviewed the results against the 2014 Oregon Hospital Report developed by the OAHHS and Apprise. There were several key differences between these two data sources, including:

- ▶ The Hospital Report was based on monthly self-reported data that may not tie to audited financials
- ▶ The FSI relied on self-reported financial data that tied to audited financials and hospital cost reports
- ▶ The FSI was based on each hospitals' fiscal year, whereas the Hospital Report was based on calendar year

For these reasons, this comparison served only as a high-level overview of the hospitals' financial picture and intended to compliment and strengthen the conclusions that could be drawn from the report, shedding light on additional factors that may need to be considered. The two primary financial fields compared were:

- ▶ Total margin
- ▶ Net patient revenue

Generally, the hospitals had comparable financial information from one report to another; however, any differences were investigated and determined not to be of material concern due to differences in the data sources (described above), the overall revenue for the hospital, and the minimal impact to the FSI score.

Based on our review, **Optumas** had the following comments:

- ▶ Looking into the differences between the two reports highlights the significance of the snapshot used for the Financial Strength Index and why the single year snapshot was not recommended. With the possibility of the financial strength varying from year to year, a single year was not robust enough due to its volatility and range of values. Margin appeared to have the most influence on the FSI, as well as the most variance out of the four variables.
- ▶ Due to the nature of available data, the FSI was limited to self-reported financials. As each hospital may have varying reporting practices, this analysis could include discrepancies due to inconsistent reporting.
- ▶ The FSI did not account for hospitals that were affiliated with a larger health system.
- ▶ With each of the variables having equal weight, the FSI may not fully reflect changes in financial picture.
  - Example: Hospital with high Debt % or low Days Cash on Hand may have recently upgraded facilities.
- ▶ The Workgroup was asked to consider whether district hospitals should be held to the same standard as non-profits, and whether stand-alone hospitals should be treated the same as hospital systems.
- ▶ FSI did not factor in Medicaid relevance (% Medicaid days/dollars) directly into the score.

### 2.2.3. Summary and recommendations

The source data and overall calculations used to compile the report appeared to be reasonable. While the FSI painted a high-level view of each hospital’s financial picture to simplify the process of comparing the 32 rural hospitals, exclusive reliance on the one-year FSI as the only source of financial information may have been too narrowly focused for the RHRI study for several reasons, including:

- ▶ Risk introduced with a one-year snap shot
- ▶ Variability in self-reported data
- ▶ Excluded key elements such as:
  - Hospital system affiliation
  - Medicaid relevance
  - District hospital vs. non-profit

**Optumas** recommended:

- ▶ The FSI calculation should include at least three years of financial data in the FSI calculation.
- ▶ Incorporate key elements such as
  - Hospital system affiliation
  - Medicaid relevance

## 3. District hospital vs. non-profit

- ▶ Review each of the four targets to be sure they are in line with the goals of the Workgroup.

- ▶ Consider the use of a hierarchical approach (decision tree) in the evaluation of this variable. The hierarchical approach was adopted by the Workgroup and is described in more detail subsequently in this report.

## 2.3. Global Health Payments Report

### 2.3.1. Overview

Global Health Payment, LLC (GHP) provided the Workgroup (through OAHHS) with three separate reports supporting the RHRI:

- ▶ Paper 1: Key Elements of Rate Systems
- ▶ Paper 2: Classification of Insurance Risks - CCO Contract Options for Rural Hospitals
- ▶ Paper 3: Assessing the Risk Faced by Rural Hospitals in Oregon

While each of the reports provided valuable insight into the process, Paper 3 was the key to GHP's hospital risk level determination. It detailed the risk analysis performed by GHP on each of the 32 rural hospitals assuming a transition to:

- ▶ Prospective DRG-based payment system
- ▶ Discounted charge system

**Optumas** reviewed all three reports from GHP, with the technical review focused on Paper 3.

The GHP report utilized Oregon hospital claims cost and length of stay data supplemented with Maryland claims data in its risk evaluation. A key output from the report was a recommendation on a Medicaid caseload limit at which the State could establish a cutoff for eligibility for the DRG-based payment system. Essentially, if a hospital's Medicaid caseload fell below the established cutoff, the transition to a DRG-based payment system would pose too much risk to the hospital and would therefore not be recommended. The idea is that when using the coefficient of variation as a risk measure, caseload volume is key to reducing volatility. Lower caseloads equate to higher risk. In addition to the caseload recommendation, GHP provided multiple risk measures for the hospitals.

### 2.3.2. Review and Analysis

Each of the three papers, specifically Paper 3, provided a detailed narrative describing the methodology and data used to support GHP's analyses. Additionally, **Optumas** met with individuals from GHP to discuss key details and nuances of the report. While **Optumas** did check for overall reasonability, we did not perform a detailed audit of the source data. Therefore, any material error in the source data or supporting files could significantly impact the results of this review. Key features of this report include:

- ▶ Use of the statistical coefficient of variation (CV) – a normalized risk measure
- ▶ Use of robust MD data as a proxy to fill in OR data gaps tested against OR LOS data to ensure similar results/correlation
- ▶ Risk measures were associated with specific APM
- ▶ Applied volume adjustment

**Optumas** did not review the detail-level data or supporting files, however we did attempt to validate the caseload counts using Aprprise Health Insights' OAHHS databank. This proxy data served only as a

benchmark and was not meant to refute or discredit the GHP report. It served to compliment and strengthen the conclusions that can be drawn from the report, and to shed light on additional factors that may need to be considered.

Due to some differences in how the caseload data was collected and counted between the two data sources, **Optumas** focused on differences in the sorted ranking of caseloads between the two reports rather than the true caseload count. This ranking metric is relevant due to GHP's assertion that a Medicaid caseload threshold should be key in determining a hospital's eligibility for the APM.

The analysis produced by GHP was robust and thought-provoking. It attempted to quantify the essence of the feasibility of an APM conversion through a detailed risk measure calculation. Factors that the Workgroup considered when drawing conclusions from the GHP report included:

- ▶ Accounting for Medicaid relevance in the risk metric
  - The GHP report interpreted low Medicaid caseload volume as higher risk, which was consistent with statistical principles that invalidate small sample sizes due to increased volatility. However, low Medicaid caseloads could have been related to payer mix which would imply that an APM would have minimal impact given the percentage of other business.
- ▶ Accounting for ownership/affiliation in the risk metric
  - The GHP report did not adjust for payer mix or ownership. It was possible that a particular hospital may have had an increased ability to absorb risks from payment conversion due to its affiliation with a larger hospital system. Similarly, it was important to consider the limited ability of a district hospital to absorb negative financial results.
- ▶ Consider merging the results of the GHP analysis with the other two reports (Unmet Needs and FSI) in a more hierarchical approach
  - Hospitals with high FSI scores and low Unmet Needs risk may be able to absorb more APM risk.
- ▶ Due to limited Medicaid caseload data, some hospitals were not assigned a risk measure in the schedules.
- ▶ The risk measures were calculated assuming the DRG-based payment system as described in the GHP reports. To the extent that other APMs were being evaluated, the risk measures would need to be recalculated. In other words, if the dynamics of the APM changed, the risk would need to be reevaluated.

### 2.3.3. Summary and recommendations

The overall calculations used to compile the report appeared to be reasonable. **Optumas** recommended merging the results of the GHP analysis with the other two reports (Unmet Needs and FSI) as well as other relevant data points in a more hierarchical approach that was more in line with the goals of the Workgroup. This intensive study around risk measures that GHP presented would then be leveraged along with the work of the other consultants in the final recommendation.

**Optumas** recommended:

- ▶ Incorporate key elements such as
  - Medicaid relevance

- Ownership/affiliation
- ▶ Consider merging the results of the GHP analysis with the other two reports (Unmet Needs and FSI) as well as other relevant data points in a more hierarchical approach that was more in line with the goals of the Workgroup.

## 4. Task 2 – Development of Evaluation Method

### 3.1. Hierarchical Approach

For 2017, **Optumas** updated the decision tree as a result of the appropriate statistics derived from the new data but did not materially alter the hierarchical approach chosen in 2014. **Optumas** developed a series of decision trees, also described as hierarchies, and presented them to the Workgroup. The Workgroup then decided which elements from each of these hierarchies were most reasonable and took into consideration the components most critical to the goals of the RHRI. Throughout the development of the decision tree, the results of the individual hospitals were blinded from the Workgroup. This was done to ensure an unbiased approach to the development, and so that the ending results did not influence the design of the approach.

Using the data elements described in the following section, the final (updated) decision tree was developed and included four main criteria under which each hospital was evaluated:

- ▶ Medicaid Caseload
  - Less than or equal to 300 Medicaid cases
  - Greater than 300 Medicaid cases
- ▶ Medicaid Payer Mix
  - Less than or equal to 22.7% (based on the 2017 data update)
  - Greater than 22.7% (based on the 2017 data update)
- ▶ FSI Score
  - Threshold varies
- ▶ Unmet Needs Score (including revised travel distance metric)
  - Less than or equal to 59.3 (based on the 2017 data update)
  - Greater than 59.3 (based on the 2017 data update)

The final (updated) decision tree is shown in Appendix A. For purposes of this Workgroup, several items in the Unmet Needs report were modified to accommodate the specific objectives of the RHRI:

- ▶ As described previously, the original “travel time to the nearest hospital” was replaced with the “travel time to the next nearest hospital,” which was calculated as the road distance travel time to the next nearest hospital. This new variable was more relevant to the hospital-specific “isolation impact.”
- ▶ Since the Unmet Needs score was originally assigned based on each service area’s rank against all 104 service areas, **Optumas** renormalized the scores so that they were based on the 32 service areas included in the RHRI. This renormalization was done consistent with the logic that was used in the original Unmet Needs report.

### 3.2. Data Sources and Thresholds

Based on the reports provided by the three consultants, **Optumas’** detailed review, and input and discussion from the Workgroup, the conclusions and data noted below were used in the development of the hospital evaluation method:

- ▶ Medicaid caseload data

- As determined in the GHP report, the implementation of alternative payment methodologies for Medicaid cases for hospitals with low caseload volume introduced a significant amount of volatility. GHP’s report established a 300 Medicaid caseload threshold. For this purpose, Medicaid caseload data from 2014 - 2016 Comp Data was utilized.
- ▶ OAHHS Databank
  - In order to determine the impact that alternative payment methodologies in Medicaid would have on each individual hospital, a Medicaid relevance measure was used. Medicaid relevance was determined as the percent of total Medicaid inpatient and outpatient billed charges that were associated with that particular hospital. The source of this information was the OAHHS Databank for the three-year period beginning January 1, 2014 and ending December 31, 2016.
- ▶ Financial Strength Index (FSI)
  - The FSI served as a measure of the overall financial position of the hospitals. A three-year average FSI from the most recent available financial information was utilized in the evaluation.
- ▶ Unmet Needs
  - The Unmet Needs report was a readily available, existing report produced annually that captured several of the demographic aspects of unmet rural health care need in Oregon. Originally designed to support other needs, the Workgroup elected to utilize the most current report in its analysis of the rural hospitals as a proxy for community health needs. It is important to note that for the purposes of this Workgroup, the variable “travel time to the nearest hospital” was modified from ORH’s standard approach included within its annual report. The original metric was specific to a particular service area and was calculated as the travel time from the largest city/town in each rural service area to the nearest city/town with a hospital. Since the RHRI study was done at the individual hospital level, all of the relevant service areas included a hospital within their boundaries. Therefore, this variable produced the same score for each hospital, and did not appropriately reflect service areas/hospitals that were more remote or isolated than others. The Workgroup replaced this metric with “travel time to the next nearest hospital,” which was calculated as the road distance travel time to the next nearest hospital. Per the Workgroup’s recommendation, only hospitals located within the state of Oregon were considered. Each of the variables were then renormalized to ensure that all variables were scored based on the relevant 32 service areas only (i.e. not statewide).

The final (updated) decision tree is shown in Appendix A. The thresholds used in the decision tree were established as follows:

- ▶ Medicaid Caseload – The 300 Medicaid cases threshold was established based on the work of GHP.
- ▶ Medicaid Payer Mix – Using each hospital’s three-year average payer mix value, **Optumas** developed a 95% confidence interval around the mean. Using the range of values generated from the confidence interval, **Optumas** selected the 60<sup>th</sup> percentile of that range for the threshold. By using this point in the range, **Optumas** intended to establish a threshold that was just slightly above average. Based on this analysis, 22.7% was used as the Medicaid payer mix threshold.

- ▶ FSI Score – The thresholds established for the FSI criteria vary for the different branches of the decision tree. They were determined by the Workgroup based on the inherent risk levels associated with the various points in the hierarchy. For example, it was determined that a hospital with a large number of Medicaid cases that represent a large portion of that hospital’s payer mix has significant risk exposure in moving Medicaid cases away from cost-based reimbursement. Conversely, a hospital with a small number of Medicaid cases that represent a very small portion of that hospital’s payer mix has limited risk exposure in moving Medicaid cases away from cost-based reimbursement. For this reason, the Workgroup determined that hospitals with higher risk exposure should have a higher FSI criteria than those with limited risk exposure.
- ▶ Unmet Needs Score (including revised travel distance metric) – Like the analysis conducted on the Medicaid Payer Mix threshold, **Optumas** developed a 95% confidence interval around the mean of Unmet Needs scores. Using the range of values generated from the confidence interval, **Optumas** selected the 60<sup>th</sup> percentile of that range for the threshold. By using this point in the range, **Optumas** intended to establish a threshold that was just slightly above average. Based on this analysis, 59.3 was used as the Unmet Needs score threshold.



## 5. Task 3 – Final Outcome, Workgroup Recommendation, and Decision

Throughout the process, the Workgroup referred back to the Charter that was developed and agreed to by its members, which included the following steps:

1. The Workgroup will review the work of the consultants around Alternative Payment Methodologies, Financial Strength Index, and Demographic Characteristics and validate the appropriateness of the analyses.
2. Optumas will develop a process to evaluate each hospital using the output of the consultants' work. Optumas will supplement the consultants' work with other information as determined necessary and relevant. The evaluation, which will be hierarchical in nature, will quantify the "risk" (in terms of risk to the hospital, risk to the community and risk to the CCO) associated with each Type A/B hospital.
3. The Workgroup will review the results developed by Optumas and then make a recommendation for each hospital as to maintaining cost based reimbursement or moving to one of the alternative payment methodologies.
4. Optumas will review assumptions and actuarial soundness of conclusions, and provide recommendations throughout the process.

The final step in the process included a review of the blinded results of the hierarchy as specified in Step 3 of the Workgroup Charter. For this, **Optumas** ran all 32 rural hospitals through the algorithm illustrated in the decision tree and provided the Workgroup with a blinded count of the number of hospitals at each level of the decision tree. This, again, supported the unbiased approach that the Workgroup has taken to the development of the evaluation process. The table in Appendix B shows generic profiles of hospitals based on the various combinations within the decision tree and the resulting outcomes.

At its meeting on March 20, 2014, the Workgroup developed and agreed to its final Recommendations for submission to OHA Administration:

### 4.1. RHRI Workgroup Recommendation and Implementation Proposal

#### 4.1.1. Recommendations

- ▶ OHA will utilize the Decision Tree developed by Optumas and endorsed by the Workgroup to determine which hospitals will move off of CBR.
- ▶ OHA will consider and address the financial risk to the CCOs (associated with those hospitals remaining on CBR) as a component of the decision and implementation process.
- ▶ OHA Director will make a decision no later than April 15, 2014 identifying which hospitals will transition off of CBR.
- ▶ OHA will re-evaluate, using the Decision Tree, every two years using the most current data available, starting two years post implementation.
- ▶ OHA will identify any available resources that could be provided to the CCOs and to the hospitals to assist with the transition off of CBR (within budgetary constraints).

## 4.1.2. Proposed Implementation

- ▶ OHA will encourage hospitals and CCOs to enter into good faith negotiations for contracts to be effective January 1, 2015.
- ▶ For hospitals transitioning off of CBR, discounted charges with a limit on the annual payment increase (rate cap) and a volume adjustment system would be used as a starting point for hospital/CCO negotiations.
- ▶ OHA will evaluate and determine a risk corridor for the volume adjustment. This should be on a hospital specific basis.
- ▶ OHA will determine when the volume adjustment might sunset. This should also be on a hospital specific basis.
- ▶ CCOs and hospitals are encouraged to negotiate alternative payment methodologies and incentives beyond the starting point.

## 4.2. Decision

On April 11, 2014, OHA Acting Director Tina Edlund accepted the recommendations of the Workgroup, deciding that, of the 32 Hospitals in Oregon:

- ▶ 18 Hospitals will transition to an APM aligned with coordinated care; and
- ▶ 14 Hospitals will maintain CBR.

Subsequent to the April 11, 2014 decision, OHA decided that frontier status was an appropriate additional factor to include in the decision process. Therefore, any hospital that met the criteria of a Type A/B hospital and was located in one of the ten Oregon counties designated as “frontier” would remain on cost based reimbursement, regardless of the decision tree results. (A frontier county is defined in Oregon as a county that has six or fewer people per square mile.)

## 4.3. Implementation

- ▶ The rule-making process was completed in 2014 with the resulting sections (10) – (12) added to Oregon Administrative Rule (OAR) 410-141-3420.
- ▶ Under the OAR, OHA is required to review the decision tree every two years to reevaluate which hospitals should begin the transition to an alternate payment methodology. However, in order to understand the impact of the changing healthcare environment in Oregon, OHA was required to reevaluate the hospitals again in 2017 for the Jan. 1, 2018 contracts.

## 6. Updated Decision Tree Results

As required under OAR 410-141-3420, **Optumas** contracted with OHA to update the decision tree algorithm based on the most recent data available. The intent of the update was to include emerging data that would quantify the impact of the ACA Medicaid expansion on the Type A and Type B hospitals. The Medicaid expansion began January 1, 2014 and by the end of the year, added nearly 400,000 new members.

**Optumas** performed steps necessary to validate the updated data and recalculated the thresholds using the same methodology as in the previous year. **Optumas** then ran all 32 hospitals through the same algorithm using the updated data and thresholds. The updated reporting periods and thresholds have been reflected in this report in the earlier sections.

Based on the new data and updated thresholds, the decision tree algorithm produced the following results for the 32 Type A/B hospitals in Oregon:

- ▶ 12 Hospitals will transition to an APM aligned with coordinated care; and
- ▶ 20 Hospitals will maintain CBR.

One additional hospital will remain on CBR do to its frontier status, leading to the following final result:

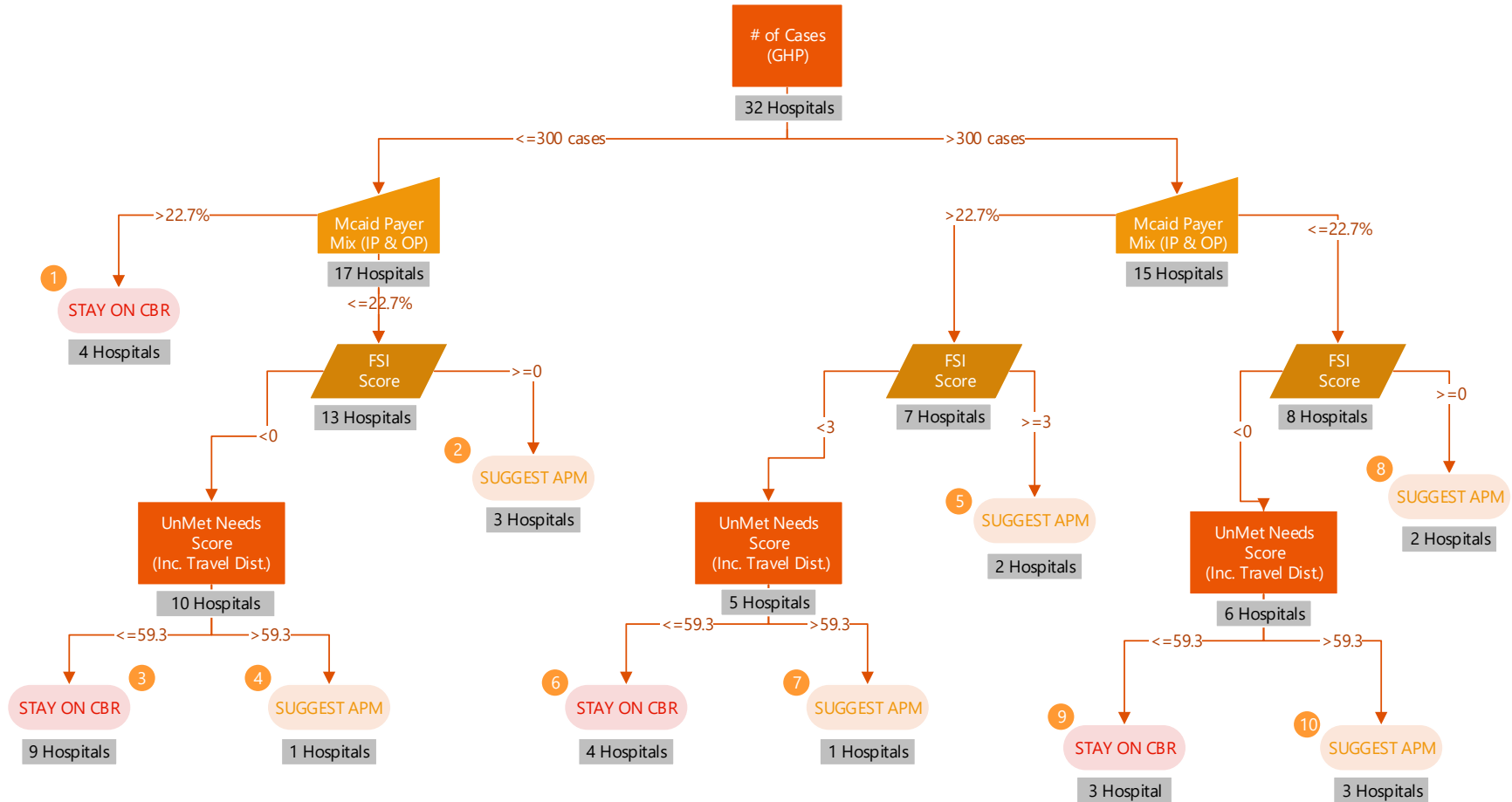
- ▶ 11 Hospitals will transition to an APM aligned with coordinated care; and
- ▶ 21 Hospitals will maintain CBR.

As a result of the new data and updated thresholds, the results of the following four hospitals have changed from the 2015 update:

- ▶ *Coquille Valley Hospital* will transition from APM to CBR
- ▶ *Samaritan Pacific Communities Hospital* will transition from APM to CBR
- ▶ *Santiam Memorial Hospital* will transition from CBR to APM
- ▶ *PeaceHealth Peace Harbor Medical Center* will transition from CBR to APM

## 7. Appendices

Appendix A – Final Decision Tree Updated for 2017



Criteria	Data Source	Time Period
# of Cases	COMPDATA	2014 - 2016 3 - year average
Mcaid Payer Mix (IP & OP)	Databank	2014 - 2016 3 - year average
FSI Score	Hospital Financial Data	2013 - 2015 3 - year average

# Appendix B – Hospital Profiles Updated for **Optumas** 2017

## Appendix B – Hospital Profiles Updated for 2017

	<u>Hospital Profile</u>	<u>Recommendation</u>	<u>Hospital Count</u>
1	Medicaid Case Load: Small Medicaid Relevance: High Financial Strength: N/A Community Need: N/A	STAY ON CBR	4
2	Medicaid Case Load: Small Medicaid Relevance: Low Financial Strength: Strong Community Need: N/A	SUGGEST APM	3
3	Medicaid Case Load: Small Medicaid Relevance: Low Financial Strength: Weak Community Need: Unmet	STAY ON CBR	9
4	Medicaid Case Load: Small Medicaid Relevance: Low Financial Strength: Weak Community Need: Met	SUGGEST APM	1
5	Medicaid Case Load: Large Medicaid Relevance: High Financial Strength: Excellent Community Need: N/A	SUGGEST APM	2
6	Medicaid Case Load: Large Medicaid Relevance: High Financial Strength: Not Excellent Community Need: Unmet	STAY ON CBR	4
7	Medicaid Case Load: Large Medicaid Relevance: High Financial Strength: Not Excellent Community Need: Met	SUGGEST APM	1
8	Medicaid Case Load: Large Medicaid Relevance: Low Financial Strength: Strong Community Need: N/A	SUGGEST APM	2
9	Medicaid Case Load: Large Medicaid Relevance: Low Financial Strength: Weak Community Need: Unmet	STAY ON CBR	3
10	Medicaid Case Load: Large Medicaid Relevance: Low Financial Strength: Weak Community Need: Met	SUGGEST APM	3

<u>Recommendation</u>	<u>Hospital Count</u>
STAY ON CBR	20 Hospitals 57% of Medicaid IP & OP Charges
SUGGEST APM	12 Hospitals 43% of Medicaid IP & OP Charges

# Appendix C – Final Decision by Hospital Updated for 2017

## Appendix C – Final Decision by Hospital Updated for 2017

Hospital Name	Decision	Hierarchy Branch
Asante Ashland Community Hospital	TRANSITION TO APM	10
Blue Mountain Hospital	MAINTAIN CBR	3
Columbia Memorial Hospital	TRANSITION TO APM	10
Coquille Valley Hospital	MAINTAIN CBR	3
Curry General Hospital	MAINTAIN CBR	3
Good Shepherd Medical Center	TRANSITION TO APM	5
Grande Ronde Hospital	TRANSITION TO APM	8
Harney District Hospital	MAINTAIN CBR	1
Lake District Hospital	MAINTAIN CBR	3
Legacy Silverton Hospital	TRANSITION TO APM	7
Lower Umpqua Hospital	MAINTAIN CBR	3
Mid-Columbia Medical Center	MAINTAIN CBR	9
PeaceHealth Cottage Grove Community Hospital	MAINTAIN CBR	1
PeaceHealth Peace Harbor Medical Center	TRANSITION TO APM	2
Pioneer Memorial Hospital - Heppner	MAINTAIN CBR	3
Providence Hood River Memorial Hospital	TRANSITION TO APM	10
Providence Newberg Medical Center	TRANSITION TO APM	8
Providence Seaside Hospital	MAINTAIN CBR	3
Samaritan Lebanon Community Hospital	MAINTAIN CBR	6
Samaritan North Lincoln Hospital	MAINTAIN CBR	6
Samaritan Pacific Communities Hospital	MAINTAIN CBR	9
Santiam Memorial Hospital	TRANSITION TO APM	4
Southern Coos Hospital & Health Center	MAINTAIN CBR	3
St. Alphonsus Medical Center - Baker City	MAINTAIN CBR	3
St. Alphonsus Medical Center - Ontario	MAINTAIN CBR	6
St. Anthony Hospital	TRANSITION TO APM	2
St. Charles - Madras	MAINTAIN CBR	6
St. Charles - Prineville	MAINTAIN CBR	1
St. Charles - Redmond	TRANSITION TO APM	5
Tillamook Regional Medical Center	MAINTAIN CBR	9
Wallowa Memorial Hospital	TRANSITION TO APM	2
West Valley Hospital	MAINTAIN CBR	1

\*Indicates hospital is in a Frontier County and will remain on CBR despite decision tree results.