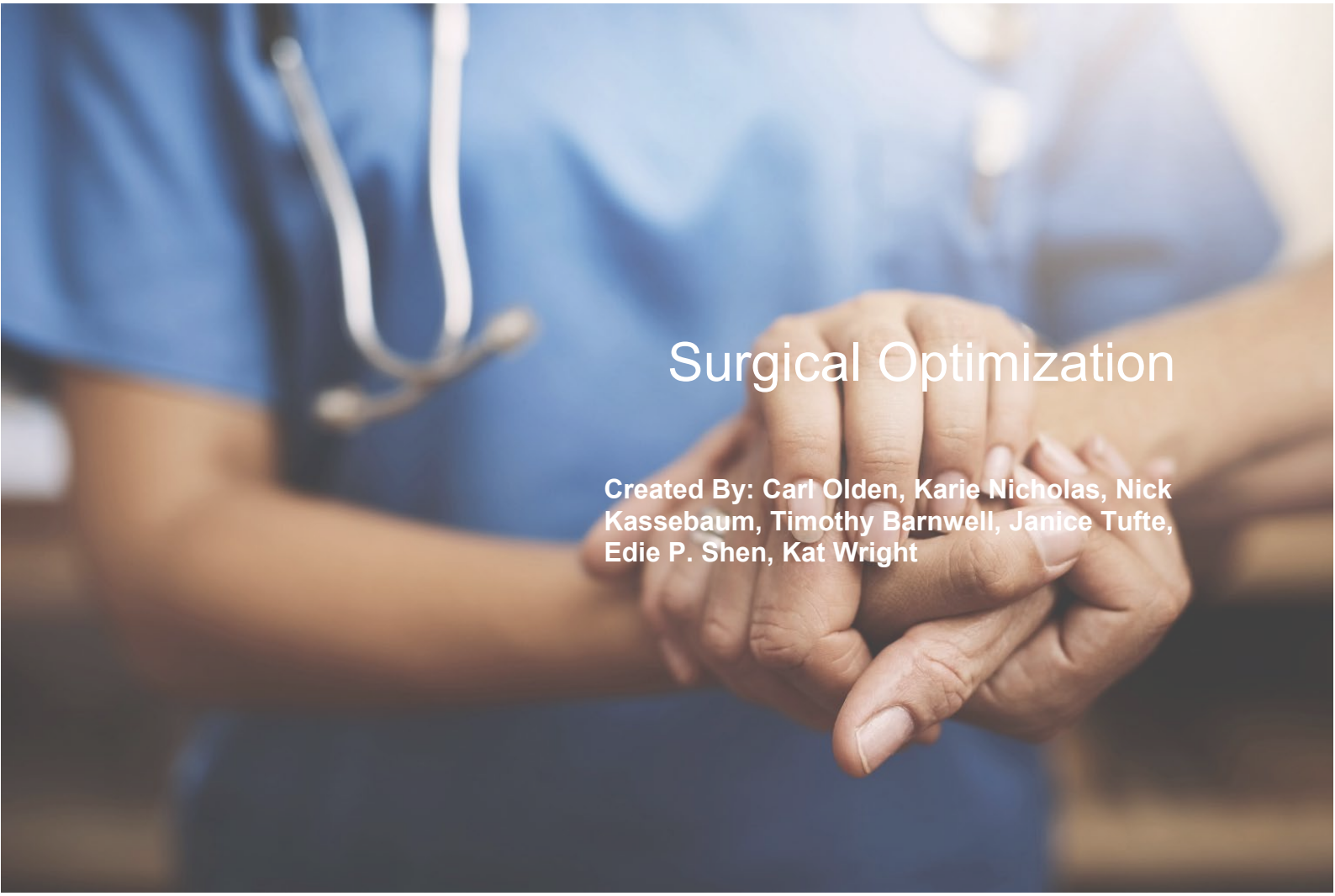

Surgical Optimization

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Surgical Optimization Guidelines

This evaluation framework provides an overall framework for evaluations across different organizations within the Washington State health care system that contribute to patient care for Surgical Optimization.

This evaluation framework includes:

- **definitions and key concepts**
- **principles and standards**
- **Information on resources to help align evaluations across system actors**
- **guidelines for setting priorities on what, when and ways to evaluate**
- **health system roles and responsibilities**

Document administration

Version history

Version	Date	Description	Author
1.0	01/04/2026	Sub-committee and work group completion	NA

Contents

Glossary

Audience – In Bree reports, an audience is a category of "system-actors". For example, a common audience is "health plans" and a common system-actor would be a specific insurance company.

Care-variation - differences in process of care across multiple clinics, areas, patient groups, insurance types, etc. (Bree Collaborative).

Concordance of care – Organizational and individual activities, interactions, policies and procedures that have a high degree of alignment with best practice recommendations (i.e. for the purposes of this framework best practices are considered to be the Bree Collaborative Guidelines). (Bree Collaborative)

Equity/Equity Lens - A just outcome that allows everyone to thrive and share in a prosperous, inclusive society. (Propel Alanta, 2024) A way of viewing, analysing, or evaluating data that takes vulnerable, disadvantaged, or small groups of people into consideration to assure that all outcomes and impacts are equal (Bree Collaborative).

Evaluation - determination of the value, nature, character, or quality of something. (Merriam-Webster, 2024) A systematic determination and assessment of a subject's merit, worth and significance, using criteria governed by a set of standards. (Wikipedia, 2024)

Guideline – an action to improve health care for a specific health care service

Health Ecosystem - a complex network of all the participants within the healthcare sector. It is a community that consists of patients, doctors, and all the satellite figures who play a role in the medical care received by the patient or their hospital stay. This can include service providers, customers, and suppliers. Recently, the healthcare ecosystem has grown to include electronic health entities and virtual care providers. (Definitive Healthcare, LLC, 2024)

Implementation - the translation of guidelines into practice.

Public Employees Benefits Board (PEBB) Contracts - medical and dental plans that provide health benefits to 222,000 public employees and retirees. (Washington State Health Care Authority, 2024)

Report – A report is multipage document on a health care service

School Employees Benefits Board (SEBB) Contracts - medical, dental, and vision plans that provide health benefits to more than 130,000 employees of the state's school districts and charter schools, as well as union-represented employees of the nine educational service districts. (Washignton State Health Care Authority, 2024)

System-actor – A specific type of organization that participates in health care in some way. Example: X health insurance company, the Washington State Department of Health, a specific provider, etc.

1. Background and Overview

1.1 Introduction

This Evaluation Framework outlines recommendations for future evaluation activities that are intended to measure, process changes, outcomes, and impacts associated with the Bree Collaborative's *Surgery Optimization* during the life-cycle of the report. It is applicable to all audiences identified in the report. This evaluation framework has been developed by the Bree Collaborative Sub-committee of the Surgery Optimization Workgroup.

The framework provides guidance for different types of evaluations at different levels across the healthcare ecosystem. It details the reasons behind recommendations for particular types and timings of evaluation activities, makes recommendations for types of evaluations by audience, identifies domains for the development of evaluation questions, and identifies the data which should be available, or which will have to be collected to answer these questions. Organizations or researchers should be able to use this framework as a starting point to develop and evaluation of the implementation of Bree aligned recommendations for surgery optimization.

Establishing this framework early in your organizations implementation life cycle ensures that the programs developed from it are prepared for future evaluations and helps instil an evaluative mindset from the outset. This framework document should be referred to during the implementation process and used to inform the drafting of an evaluation plan by each organization. It is recommended that it be reviewed periodically or in response to significant program, regulatory, or environmental events.

While this framework is expected to inform the evaluations outlined herein, the evaluations themselves may deviate from this framework based on input from various collaborators and interested parties and the program's evaluative needs at the time of each evaluation. This document is meant to provide alignment across multiple audiences for the purpose of comparison and to facilitate state-wide measurement on the progress and outcomes of the adoption of the Bree guidelines.

This framework has been prepared by taking into account the strategic importance of the guidelines and the expected level of resourcing for evaluations at each organization, other initiatives that may affect implementation of the guidelines, and important contextual factors across the state.

1.2 Guideline overview

A **Bree Report** is defined as *a multipage document on a health care service, identified by Bree members as needing improvement that provides information and guidelines for actions different audiences can take within the health care ecosystem to improve the health of that chosen report topic*. A report may also be referred to as an **intervention** for the purposes of evaluation. A **Bree Collaborative Guideline** (previously called a recommendation in earlier Bree reports) is defined as *an action to improve health care for a specific health care service*. Reports include multiple guidelines for many different system-actors.

The *Surgery Optimization* Report was developed by the Bree Collaborative in 2025. The purpose of this report is to provide guidance on how different health care system actors can

work towards the common goals of preparing patients for specific surgeries (see guidelines report for list) and reducing poor surgical outcomes, such as blood loss and infection, by addressing anaemia and glycaemic control.

The Bree reports are submitted to the Washington State Health Care Authority for the purpose of implementation as part of their Medicaid and other contracting activities. The report is also published to the Bree Collaborative website for the purpose of implementation by Bree Collaborative members and by health care providers, purchasers, payors and community partners in general, in Washington State. The guidelines report was released on January 5th, 2026.

The components of the *Surgery Optimization* guidelines are **pre-, inter- and post-operative patient management, perioperative surgery coordination,** and **payment reform.** The guidelines apply to multiple system actors (patients, clinicians, health plans, health administration, etc.) that play a part in the identification of patient needs and treatment prior to surgery. In this report, patients are also included as one of the "audiences" the recommendations are aimed at. This means that health systems, clinics, health plans, government entities or other organizations conducting evaluations should include patient perspectives or measures in their evaluations. More guidance on how to align this is provided throughout this document.

2. Types of Evaluations

This framework provides guidance for the types of evaluations (e.g. programs and process, outcomes, impact and cost) that will assist in the demonstration of the usefulness of the Bree Guidelines. It can also help inform decision makers on how to improve their process of care, identify pinch-points or lessons learned, assess outcomes of changes made, monitor state-wide progress on the goals of the guidelines, and/or determine the impact of guidelines adoption on their patients' health, workforce, costs, etc.

As equity is an important part of the Bree Collaboratives' work, strategies and activities to improve equity should be included in any type of evaluation. More information on equity focuses specific to the guidelines can be found throughout this document.

More information on evaluations: **Evaluation.gov | Evaluation 101**

Information about what types of evaluations different guideline "audiences" or "system actors" should conduct can be found at the beginning of sections 2.2 to 2.5.

2.1 Metrics alignment

One of the intentions of this framework is to help organizations across the health care ecosystem align how they measure processes, outcomes, and impacts associated with the implementation of the guidelines. The Bree Collaborative *Surgery Optimization* guidelines aim to change patient care across four domains – **Identification**, **Optimization, Perioperative Management, Care Coordination, and Financing.**

The guidelines workgroup evaluation sub-committee has identified measure concepts to help evaluators and quality improvement programs determine how to measure components of these recommendations and the impacts of their implementation.

PLEASE NOTE: These recommendations are still in the conceptual stage as of December 2025. Measurement workgroups will meet throughout 2026 to further define measurement concepts and publish a version 2.0 of this framework between October and December of 2026.

Process measures for changes in standards of care

- Number and percent of patients being screened for high A1c/Diabetes at least 30 days prior to surgery
    - Glycemic Status Assessment for Patients with Diabetes Poor Control (>9.0%)
    - Glycemic Status Assessment for Patients with Diabetes Good Control (<8.0%)
- Number of patients tested day of surgery
    - Point-of-care testing for BGL >180mg dl
- Number of patients managed with insulin and with BGL >140 and <180 interoperatively

Primary care

- Number and percent of patients being screened for anaemia at least 30 days prior to surgery
- Number and percent of patients with high glucose receiving diabetes/per-operative glucose optimization prior to surgery, which should include, at a minimum, insulin and/or medication management and nutrition therapy.

    A resource for medications list can be found HERE.

- Number of patients receiving anaemia optimization prior to surgery, which should include, at a minimum, management of iron repletion for either B12 or folate.

- Measure concepts for care coordination between pre-operative services (primary care) and surgery team/center prior to surgery (hospital, clinician, patient center) NOTE: these measure concepts will be further defined by a workgroup in 2026.
    - Did patient get evaluated prior to surgery so that surgery did not need to be delayed? How many days prior to the surgery did the evaluation occur?
    - Was there a plan put in place at the time of initial consultation?
    - Communication between ambulatory care and surgery team: are records from pre-operative care available for the surgery team at the time of surgery
- Patients with insurance coverage for optimization, which should include coverage for the following: CGMs (where applicable), diabetes management services, insulin or other diabetes control medication prescriptions, quick acting iron for patients having surgery.
- Ability of patient to follow up with a provider within a specified timeframe – consider using the following:
    - NQF #0648- Timely transmission of inpatient transition record to any other site of care. Assess if a transition record was sent to either the facility or primary care physician following a hospital discharge
    - Days to appointment for primary care – Patient had a primary care appointment before or within 3-7 days, for those with insulin for newly discovered glucose increase

- Also consider: Third next available appointment measure for primary care providers.

Patient Experience Measures

For those organizations that are developing their own patient experience evaluation tools, the Bree supports alignment of patient experience surveys, measurement methodologies, and structured interview questions in our **Survey Bank**. This resource allows organizations to post and share 'home grown' tools. Standardized patient-experience metrics that the subcommittee has endorsed are:

- Patient Experience with Primary Care: How Well Providers Communicate with Patients (WA Common Measure Set)
- Patient Experience with Primary Care: How Well Providers Use Information to Coordinate Patient Care (WA Common Measure Set)
- Patient understanding of pre-op and post-op instructions
  - HCA decision aid was used
  - CAHPS survey https://oascahps.org/General-Information/About-OAS-CAHPS-Survey
- Patient barriers to pre-surgery optimization (Note: these measurement concepts will be defined by a Bree Collaborative workgroup in 2026)
  - Insurance status (public/private, and by type)
  - Patient religious or personal needs
  - Geography (one or more of the following: rural/urban, by county, by ACH, other)
  - Timing of access to appointments, establish a baseline and average.
  - Insurance approvals for treatments/equipment
  - Other infrastructure barriers (staff ability to coordinate with outside clinics)
  - SDOH (support during surgery, transportation, employment, food access)
  - Clinical records transfers and patient consent forms (medical history review, lab testing, cardiac protocols, medication reconciliation)
- Patient Experience with Hospital Care: Discharge Information and Communication About Medicines - Results are reported for two questions included on the HCAHPS patient experience survey instrument for patients that have been hospitalized: communication about medicines and discharge information. They were selected because of their relationship to care transitions and hospital readmissions

  Strong recommendations:

  - Surgery centres should consider adapting the above Primary Care measure to their settings if optimization activities are happening within their clinic rather than in a primary care setting
  - Include quantitative and qualitative methods in patient experience measurements to understand the acceptability of optimization processes
  - Share patient experience evaluation surveys, methods, and results with the Bree Collaborative OR use surveys and tools shared with the Bree in your own evaluation work

  Soft recommendations:

- Consider using Beryl Institute or HCAHPS patient experience surveys better understand patient perspectives on clinical interactions.
- Resources: Patient Care Priorities, The Beryl Institute, HCAHPS

Outcomes measures

Pre-Surgery Metrics

- Percent of patients whose BGL is <= 200 on admit for surgery OR most recent haemoglobin A1C is <8.5%
- Percent of patients with anaemia and percent whose haemoglobin is < 10g per decilitre OR haematocrit is >33% on admit for surgery

Day-of surgery to first day after surgery Metrics

- Decreased requirement for blood transfusions
  - Percent of patients with a) any diagnosis of anaemia (Hb <11 for women and Hb<13 for men) and b) with severe anaemia (Hb<10) undergoing major elective surgery AND receiving blood transfusions
- Number of post-operative day where BGL is raised, per patient
  - Baseline should be measured as two or fewer days with blood glucose >=180
- Percent of patients with two or fewer post-operative days with hyperglycemia over baseline

After Discharge Metrics

- *To be determined*

Impact measures

- Percent of patients with post-operative infections/post-operative ER visits/Adverse events (comparator group – patients not able to receive surgery optimization services)
  - Denominator: all patients undergoing: any operation with entering of body cavity, operation duration >=90 minutes, operation with blood loss exceeding 500,L or 10% blood volume,
    - Joint replacement surgery (CPT - 27130-27138; 27125; 27090-27091; 27236; 27437-27448; 27486-27488),
    - spine surgery (CPT 63045-63048;63050-63051; 63081-63088; 22600-22641;22630-22634; 22558-22585; 63052-63053; 22840-22859;22206-22226),
    - abdominal surgery (CPT - 47562-47564;47600-47620; 44139-44147; 44150-44156;44204-44213; 43644-43645; 43770-43775; 43845-43848; 58150-58180;58120; 58260-58294; 58550-58554; 58570-58573; 58661; 58720; 58940; 50220-50240; 50542-50548; 55840-55845; 55866; 51590-51596)
  - Numerator: patients with any of the following events post operative infection - general, including C.Diff, SSI, CAUTI, Pneumonia, UTI, post-operative antibiotics for unspecified infection;
  - Sequala of anaemia or hypotension requiring fluid resuscitation in ER
- Fewer unplanned hospital days

    - See Bree Collaborative report on Difficult to Discharge for recommendations for measurement concepts
    - The Washington State Hospital Association has convened a workgroup to discuss measurement of unplanned hospital days. Contact: Darcy Jaffe (darcyj@wsha.org) or for general contacts visit https://www.wsha.org/contact-us/ To contact by phone dial 206.281.7211 or by fax dial 206.283.6122
- Plan All-Cause Readmissions (30-day) (PCR) (Washington Common Measure Set)
- Hospital Visits after Hospital Outpatient Surgery (NQF #2908, previously endorsed as NQF #2688): A measure tracking unplanned hospital visits within 7 days of an outpatient surgery, which reflects coordination of post-surgical care.
- Potentially avoidable use of the Emergency Room (WHA)
  OR
- The New York University Emergency Department Algorithm (NYU-EDA) 4 is a commonly used method to evaluate ED utilization in health care systems. Using full medical records, the NYU team assigned probabilities that a primary diagnosis for an ED visit falls in the following mutually exclusive categories: 1) ED treatment required; 2) ED treatment required, but potentially preventable with primary care; 3) emergency, treatable by primary care facilities; 4) non-emergency; 5) injury; 6) alcohol related; 7) drug related; 8) mental health; and 9) unclassified. For example, a primary diagnosis of abdominal pain was given a 33% probability of being “ED treatment required”, and a 66% probability of being “emergency treatable by primary care.” (McDermot , 2024)

Cost measures

The Bree Collaborative recommends that evaluations include the following concepts in measures for cost comparisons for patients receiving surgery optimization per Bree recommendations and those receiving the standard of care or care without fidelity to Bree guidelines.

Total cost of optimization compared to cost of adverse events

Cost of coverage, A1c – Include the following elements in a calculation for cost of coverage: CGM use, insulin costs, FTE, testing,

Cost of coverage, Anaemia - Include the following elements in a calculation for cost of coverage: Iron supplementation, FTE, testing,

Adverse events, A1c - include the following in a calculation for adverse events: avoidable days, hospital management of high perioperative and post operative BGLs, ER visits for infection/CAE associated with surgery (see Impact Measures - Percent of patients with post-operative infections/post-operative ER visits/Adverse events)

Adverse events, Anaemia - include the following in a calculation for adverse events: blood product use, management of blood in hospital, ER visits for infection/CAE associated with surgery (see Impact Measures - Percent of patients with post-operative infections/post-operative ER visits/Adverse events)

Additional resources:

TEAM (Transforming Episode Accountability Model
https://www.cms.gov/priorities/innovation/innovation-models/team-model

2.2 Program and process evaluations

It is proposed that program and process evaluations be conducted by: surgery centers, hospitals, primary care and health plans, other organizations that are involved in direct patient care

Evaluation for fidelity can be program or process focused to determine the extent to which either are consistent with best practices. This type of evaluation can answer questions such as "To what extent are processes with fidelity being implemented?" or "What changes were made to improve fidelity with best practices?"

Organizations that are engaged in direct patient care and care financing are the primary focus for program and process evaluations for fidelity Bree recommendations.

Objectives of the Bree guidelines for *Surgery Optimization* are to improve identification of individuals with undiagnosed anaemia or hyperglycemia prior to surgery, to optimize all patients for surgery, and to provide adequate support for anaemia or hyperglycemia post-surgery. These objectives span multiple types of system actors such as hospitals, primary care, payors, etc. To those ends, these types of organizations should consider the goals listed below as they develop their process or program evaluations.

Important aspects of an implementation project to consider measuring are:

- Access. patients have different levels of access to pre-surgical care across Washington State. Were patients able to access the appropriate care? Were there disparities in access? Were there increased delays in surgery?
- Risk identification processes. Was the provider able to identify patients at risk for either/both anaemia and glycaemic control? See the Theory of Change in Appendix A.
- Patient education output and outcomes. Was guideline-aligned patient education information created or obtained? Was patient education information communicated or distributed effectively? Did patients indicate that they understand the process?
- Optimization time. Was the recommended length of time for optimization adequate? How long before surgery did the patient have a pre-op apt?
- Follow-up time. Was the follow-up adequate to capture adverse events? How long after surgery did the patient have a follow up? Was care coordination adequate?

Generally speaking, process evaluations should focus on the initial implementation of the program to allow decision makers to identify early issues with program delivery and fidelity and take corrective action if necessary. Program evaluations should seek to answer whether all components of the program are aligned with best practices.

Process evaluation planning should be conducted in parallel with the implementation planning to make sure that all data needs are met, and that the evaluation logic matches the goals and activities. Duration of a process evaluation may vary depending on design, audience type, and scope of the implementation; however, organizations should take into

consideration the length of time it takes to optimize patients and plan their process evaluations accordingly. The evaluation should aim to support feasibility studies and surgery process quality improvement work.

Feasibility studies are being considered. The Foundation for Health Care Quality will provide further information on any studies through their website.

Strong recommendations:

- Use Bree score cards to identify processes that need to be improved or program elements that need to be implemented (found under Surgery Optimization in our **Implementation Guide**)
- Use Bree Survey Question bank and Measurement Bank to align survey, document measurement methods and data sources, and research questions across multiple stakeholders
- Examine variations in care as you plan your process evaluation

Soft recommendations:

- Consider joining a Bree Collaborative implementation affinity group or similar, multi-organization implementation groups or collaboratives to support both implementation and evaluation of the guideline recommendations.
- Consider using the UW resources to develop surveys or measures for patient education
    - https://sites.uw.edu/patiented/pre-procedure/
    - https://www.uwmedicine.org/sites/stevie/files/2018-11/Provider-Resources-Clinical%20Pathways-gynecology-oncology-surgery_caremap.pdf

2.3 Evaluations for Outcomes

It is proposed that this evaluation be conducted by: health plans, health systems, and public health agencies.

This evaluation type should focus on the outcomes of a Surgical Optimization intervention to determine whether or not the intervention resulted in better outcomes for patients who received it.

Organizations that are considering a pilot for surgery optimization are strongly encouraged to include an outcome component in their evaluation work that is linked to a program or process component. Outcomes should also be used as part of a quality improvement program. Out comes should be tied to impact and health system costs evaluations (see section 2.4 below).

Outcome evaluations should include, at a minimum:

- Patient-experience measures
- Pre-, intra- and post-operative measures
- Patient costs

Strong recommendations:

- Design your evaluation to tie outcome measures to the standards of care measures outlined in section 2.0 of this framework.
- Compare costs for patients (time, out-of-pocket costs, costs associated with adverse events) for those that have optimizing procedures to those that do not

Soft recommendations:

- Health care systems should monitor their progress on the guideline goals by using standards of care metrics.

2.4 Evaluations for impacts and health system costs

It is proposed that this evaluation be conducted by: public health agencies, health plans, and health systems.

An impact evaluation relies on rigorous methods to determine the changes in outcomes which can be attributed to a specific intervention based on cause-and-effect analysis. (American University, 2024) These types of evaluations can answer questions such as "What is the overall impact of the program on the larger community?", "In what ways does the program contribute towards the overall wellbeing of patients?" or "In what ways does the program contribute in advancing our organization's mission?"

The Bree Collaborative aims to improve the quality of patient care, patient outcomes and affordability in Washington State, to that end, the measurement of the impact and cost of guidelines adoption should be undertaken by system actors across Washington State.

Impact evaluations should seek to compare impact measures after guideline implementation to a prediction of what would have happened (a counterfactual) in absence of guideline adoption.

Because the purpose of the Bree is to increase quality, address variations in care, and reduce health care costs, organizations that conduct impact evaluations may want to include a cost/benefit analysis in their evaluation plans.

- Compare cost of optimization care to cost of ER visit/Adverse event (AE)
    - For anaemia
    - For hyperglycemia
- Assess changes to long-term outcomes for patients using a counterfactual
    - Concepts that should be considered for long-term outcomes may include reduced health care cost burden, control of diabetes, resolution of anaemia status, incidents of joint replacement failure, patient functionality scores, etc.
- Compare staff time costs for organizations that have implemented the guidelines compared to those that have not, for the specific surgeries included in the Bree report.

Strong recommendations:

- Include a care-variation lens in impact evaluations (Note: care-variation refers to differences in process of care across multiple clinics, areas, patient groups, insurance types, etc.)
- Use Bree score cards to assess concordance of care when comparing organizations or to define a counterfactual.

Soft recommendations:

- If your organization does not have the capacity to conduct and impact or cost evaluation, consider leveraging academic settings to support impact evaluations where or when public health resources are unavailable or not aligned

2.5 Guideline logic

At the heart of each guideline is a 'theory of change' (Appendix A) by which workgroup members determine the aims and goals sought and how change can be achieved across the healthcare ecosystem. This theory of change describes how the implementation of the Bree Guidelines contributes to a chain of results flowing from the buy-in, resource utilization and capacity building, to affect medium to long-term outcomes that result in an impact for patients and services in Washington State.

The Bree Collaborative offers evaluation resources, including our **Evaluation Tool Depot,** to assist with the development of logic models to define how the guideline logic can be applied to specific organizations or settings. Organization level logic models can focus evaluation questions on outcomes and processes of interest that are appropriate for their services. They can clarify the policy and program intentions and clarify alignment between activities and objectives.

Other resources for developing logic models include evaluation question guidance (section 2.7) and common contextual factors (section 3.3), included in this document.

2.6 Evaluation questions

Across the lifetime of these guidelines, evaluations need to include a range of questions that promote accountability, address gaps in care, and promote learning from system-actors experiences.

The Bree has identified four main **domains** for systems transformation in our *Roadmap to Health Ecosystem Improvement* which can be used to help develop evaluation questions which are appropriate to inform the effectiveness and impact of our guidelines: *equitable care, integrated/holistic care, data usability and transparency, and financing.* Organizations may want to use these domains as a focus for evaluation questions to determine if implementation of the guidelines has transformed care for equity, cost, data sharing or financing.

In addition to these "pillars of transformation", the roadmap identifies **levers of change** which can also be used to develop evaluation questions. They include *clinical workflows, transparent reporting, education, patient engagement, coordination, contracts and networks, legislation and regulation, organizational policy changes, and data infrastructure.* An example of a question using the Bree levers of change: *has the implementation of the report created*

change to our contracts and networks that resulted in lower costs/ cost shifts associated with surgical procedures?

To support alignment, the Bree Collaborative has developed a **Survey Question Bank** which can be used to share evaluation questions and home-grown survey questions across different organizations participating in evaluation. Although still in its infancy, the Question Bank can be built out by participants through submission of their research questions or survey questions. Organizations may also draw from the question bank to help develop evaluations that are comparable across multiple organizations, sectors, areas, or populations.

Evaluation questions for each evaluation type can be developed to align with this roadmap and with the guideline logic and should form the basis of an evaluation plan and the Terms of Reference.

Note that not every evaluation should address all the evaluation question domains, or all of the levers of change (paragraph 2 section 2.7) identified by the Bree– they may be spread out across different audience or system-actor organizations, or across different types of evaluations such as monitoring and impact evaluations.

2.7 Data Matrix

The Bree has included a sample data matrix and strongly recommends its use to document data sources (i.e. admit notes, op notes, discharge summary, pre-surgery notes, lab reports, APCD, PMP, etc.), so that evaluation results can be compared across health ecosystem actors.

An example of the Data Matrix can be found in Appendix B, and a fillable template can be found HERE or in the Bree Collaborative Implementation Guide.

3. Roles and standards

The Bree Collaborative submits the reports it develops, including the *Surgery Optimization* report, to the Washington State Health Care Authority (HCA) to consider them for use in designing Medicaid contracts, PEBB and SEBB contracts, and for general implementation at the HCA or in Accountable Communities of Health programs. Guideline reports are also posted on our website and disseminated to other system actors for the purposes of implementation.

The reports provide guidance for system actors (see section 3.1) to implement. The Bree defines implementation as the “translation of guidelines into practice”. For the purposes of evaluation, we are interested in how organizations translate our guidelines into their own context or setting and what the results of their implementation are.

3.1 Roles and responsibilities

The Bree uses the term “Audiences” or “System-actors” in place of the term “stakeholders” for clarity. There may be one or many different organizations within an audience category (for example, there will be multiple “health plans” but only one Washington State Department of Health) or there may be multiple audiences within a single organization (for example, a

health system, it's associated clinics or hospitals and the clinicians). Finally, some organizations may play more than one role (for example, the HCA is both a purchaser and a government agency, or a health system may choose to evaluate both its patient care activities and the purchasing for its employees' health insurance plans).

There are many system-actors with roles in implementing and evaluating the *Surgery Optimization guidelines* across Washington State in order to affect and measure changes to care processes, financing, and outcomes across the health care eco-system. These are:

- Washington State Agencies/State Organizations
  - Health Care Authority
- Health plans
- Health care purchasers/employers
- Health care systems
  - Pre-operative clinicians (primary care, etc.)
  - Surgery Team
  - Administrative health system teams

Table 4.1.1 below outlines broad roles and responsibilities for system-actors with regard to the *Surgery Optimization* guidelines. Further details about the exact actions that should be taken to align policies, procedures, and programs with Bree guidelines can be found in the Bree collaborative score cards which are located in the **Implementation Guide**. For example, any employer that has implemented the Bree guidelines should evaluate the extent to which their organizations have implemented the recommended changes for their employee benefits programs.

Table 4.1.1: Roles and responsibilities in the health care ecosystem

Each organization has different roles and responsibilities as system-actors within a health care eco-system to actualize state-wide changes to practices. The roles and responsibilities of different organizations as defined by these guidelines are outline in the table below:

System actor role	Responsibility
State organizations	Purchasing for MCOs Data sharing/transparency/requirements Validated patient-facing educational materials
Health Plans	Provide adequate coverage for patients for optimization Provide adequate funding for packaged services (aka VBP) Provide adequate networks for care Data transparency/sharing
Employer/Purchasers	Develop and implement requirements for plans that are purchased
Health Systems, providers	Care coordination Provide treatment aligned with best practices

Data Transparency/sharing

It is the responsibility of each organization to ensure that the evaluations they conduct are overseen by a governance body. It is not within the scope of this framework to define how each individual organizations evaluations should be governed; however, this framework sets out some general information, in sections 3.2 through 3.5, for governance bodies to consider when designing their evaluation and for organizations to consider when establishing their governance body. At a minimum, the governance body should include representation by the program's policy and delivery teams. Observers or subject matter experts from other areas should also be invited to participate as required.

As part of their evaluation plan, organizations should consider including a table, similar to table 4.1.1 above, of internal roles and responsibilities as part of their evaluations which include who is responsible for the following: *Agree to the Terms of Reference and evaluation plan, provide feedback on the evaluation report, chair of the governance group to sign off on the final evaluation report, provide evaluation guidance and input to evaluation plan, draft the evaluation Terms of Reference and evaluation plan for the evaluation; Conduct, manage, or advise on evaluation activity as required; Provide program data and guidance on program administration and delivery as required; and Provide data and input as required.*

3.2 Ethical Standards and Cultural Considerations

Equitable care is one of the pillars of the Bree Collaborative's *Roadmap to Health Ecosystem Improvement* and, as a matter of course, the Bree Collaborative encourages all implementation and subsequent evaluation work to consider an equity lens or, a minimum, a variation in care lens. Organizations may refer to the Foundation for Health Care Quality's web page for further guidance when planning an evaluation: https://www.qualityhealth.org/equity/

Evaluations involving the measurement or identification of comorbidities, substance use, ability to consent, children, or other protected groups or sensitive conditions should be thoroughly reviewed, and ethical standards should be applied where necessary or appropriate. These standards should include, at a minimum:

- **The use of an IRB, when appropriate**
- **Patient safety considerations**
- **HIPAA requirements**

Strong recommendation:

- Organizations should include equity considerations for one or more of the following groups in their evaluation plan: rural patients, underrepresented groups (by race, ethnicity, language, etc.), insurance status, and older adults (65+).

3.3 Common Contextual Factors

Because the *Surgery Optimization* guidelines are designed to be implemented by organization across the state, there will be common contextual factors that they should consider in their evaluation work in order to illustrate how they interact with the recommendations or how they influence the adaptation of the guidelines for particular settings or populations. The Bree has identified a set of contextual factors that all

organizations should consider however, each organization should research their own settings for additional contextual information such as population demographics, organizational size, etc.

Strong recommendations:

Organizations should consider, at a minimum, the following contextual factors when planning their evaluations:

- Washington State geography – urban or rural designations as defined by HRSA https://www.hrsa.gov/rural-health/about-us/what-is-rural/data-files
- Financial/capacity resource allocations – federal and state funding, health plan adoption of guidelines
- Workforce – Health Professional Shortage Areas as defined by HRSA https://data.hrsa.gov/tools/shortage-area/hpsa-find
- Data capacity – ability to collect, track, and share relevant patient level data

3.4 Timelines

Figure 4.2.1 outlines the general sequence of events for each evaluation and identifies three points at which organizations should consider coordination with the Bree Collaborative: during the evaluation planning process, during the initial data collection process, and to submit a copy of the final evaluation.

Organizations may also consider closer partnerships with the Bree for evaluation support, or with the Foundation for Health Care Quality, for leveraging data from other programs within the Foundation such as SCOAP, Spine COAP and Cardiac COAP. In such cases, organizations may want to adjust their evaluation timelines to align with the Bree's awards or reporting initiatives or with FHCQ programs data collection schedules.

Figure 4.2.1: Collaboration with the Bree

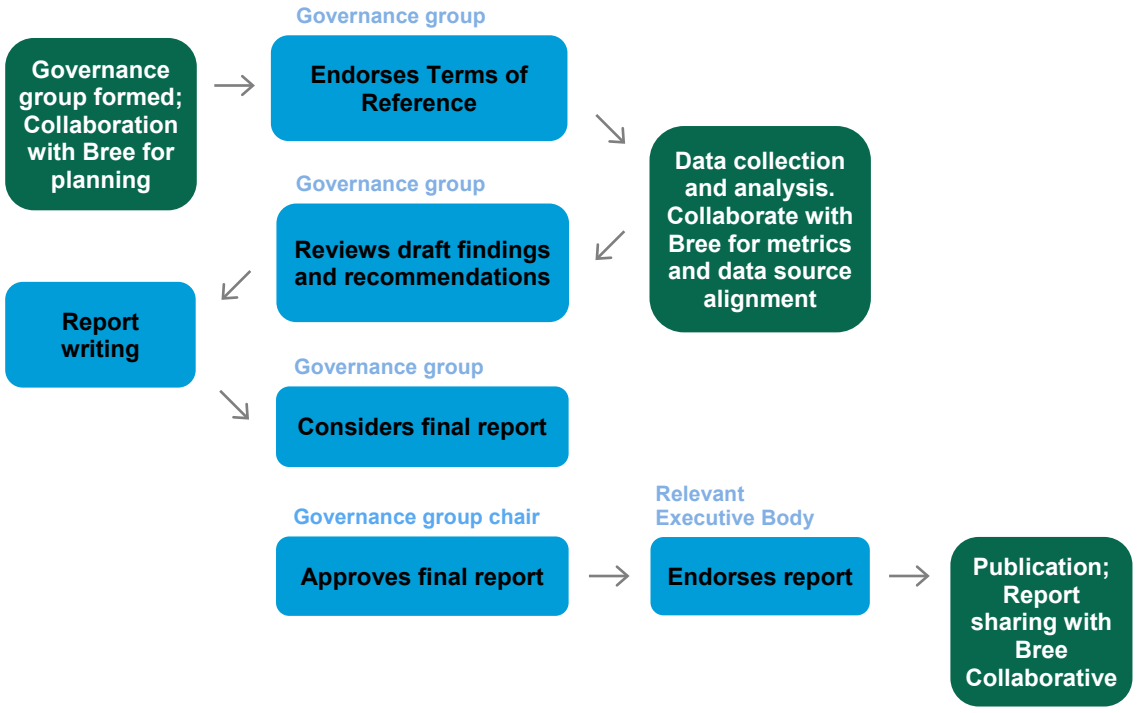

Table 4.2.1: Creating a timeline that considers other initiatives

Organizations using this framework should create a timeline for evaluation that considers alignment with other federal and local initiatives and recommendations. For example, health systems may want to consider developing a timeline that considers initiatives that facilitate patient data exchange.

The timeline for organizational level evaluations should be detailed enough to help individual external to the organization put the evaluation into a state-wide context.

Initiatives and programs	Start	End
Transformational Repository & Analytics eXchange (TRAX) Chronic Disease Surveillance System	2025	N/A
HHS Rural Health Funding	2025	Unknown
National Diabetes Prevention Program	On-going	Unknown
Diabetes programs for SEBB	On-going	Unknown
Senate Bill SB 5244	2025	N/A

Timelines for evaluation should also consider the goals of the guidelines (Identification, optimization, care coordination and financing), and other organizational-internal recommendations such as infrastructure or training recommendations, etc.

The Bree collaborative supports evaluation collaboration and alignment through our Reporting Initiative. This initiative supports a map of organizations that have or are in the process of adopting and implementing Bree reports. It can help you align your evaluation work with others, share resources, coordinate implementation work and more, by being able to see what other organizations in your area have also adopted the *Surgery Optimization report.*

3.5 Methodologies

Mix of methods, both quantitative and qualitative, should be used to gather evidence to answer the evaluation questions in order to provide a full picture of patient, staff, and other collaborators experiences, in addition to outcomes and impact data, depending on the type and number of evaluations each organization wishes to conduct. Methodologies should support, at least in part, an understanding of concordance of care with Bree recommendations and/or should aim to quantify the outcomes and impact of using the guidelines.

Specific methodologies for evaluations should be agreed by the governance body prior to the commencement of each evaluation.

Strong recommendations: Evaluations should include in whole or part -

- Bree Collaborative Score Cards to support process or program evaluations.
- Desktop research: a systematic review of program documents which may include program guidelines, executed grant agreements, program logic, policy papers, and program reporting and procedure manuals. This may also include a review of relevant reports and existing data.

- Leveraging of other Foundation for Health Care Quality programs (e.g. SCOAP, Spine COAP, Cardiac COAP, Patient Safety), where applicable
- Data sampling, where applicable

Soft recommendations: Evaluations may include the following -

- Literature review: a systematic review of similar programs run in other jurisdictions, reviews or evaluations of similar programs, and relevant journal research articles or media reports (with caution)
- Semi-structured interviews with a range of stakeholders which may include face-to-face, telephone, or video-conferencing, etc.
- Surveys
- Economic profiling of the organization and region
- Case studies of selected projects or patient cases

3.6 Risks and limitations

When developing an evaluation[s] using this framework, organisations should consider the following risks and limitations as they pertain to demonstrating concordance of care, outcomes, or impacts associated with the implementation of the Bree Guidelines on *Surgery Optimization*:

- Availability of resources and skills to conduct the evaluation/s
- Availability and quality of data from internal and external sources
- The burden/cost of collecting robust data
- Proportion of the program or initiative that can be directly contributed to the Bree Collaborative Guidelines and the difficulties or limitations of quantifying guidelines contributions
- Generalizability of the evaluation

These risk and limitations are ones that have been identified by the Bree as the primary one's pertaining to guideline adoption.

The Bree Collaborative and the Foundation for Health Care Quality seek to mitigate some of these risks or limitations by offering resources for control of data collection limitations, data sharing limitations, and metrics and methodological alignment limitations that are found throughout this framework and in Bree and Foundation for Health Care Quality programs.

Table 4.4.1: Risks and controls

Risk	Results	Likelihood	Consequence	Rating	Control
Insufficient resources to undertake the evaluation	Low quality evaluation report; failure to meet timeframes; stakeholder dissatisfaction; damage to	Likely	Fewer organizations are willing to conduct evaluations; effects of guidelines across the health care eco-system has	Substantial/ High	Bree staff available to consult on the evaluation design and methods; resources (templates, trainings, etc.) for implementation and evaluation planning;

	reputation of the organization		gaps in knowledge		partnerships with other health system actors.
Inadequate data to support analysis	Inadequate evidence to support findings; low quality evaluation report; stakeholder dissatisfaction; damage to reputation of organization	Possible	Understanding of guideline impact is reduced or incomplete	Substantial/ High	Agreed evaluation matrix identifying objectives, goals, and metrics; data collection methodology (e.g. score cards); partnerships with other health system actors.
Inability to untangle impacts of other initiatives	Lack of clear impact; diluted/ exaggerated impact	Almost Certain	Inability to quantify the exact contribution of the Bree Collaborative work to system-wide changes	Minimal/ Medium	Identification of common contextual factors; timeline alignment with other initiatives
Generalizability of evaluations	Fragmented evidence; evaluations irrelevant for state or nation-wide use	Possible	Inability to spread Bree best practices	Moderate/ High	Survey question bank; evaluation framework;

Each organizations' evaluation governance body should be responsible for monitor the evaluation closely to ensure that these and other emerging risks are managed effectively. Table 2.4.2 defines the risk ratings used above. Table 2.4.2 defines the risk ratings used above.

Table 4.4.2: Risk ratings

Likelihood rating	Consequence rating				
	Insignificant	Minimal	Moderate	Substantial	Severe
Almost certain	Minor	Medium	High	Very high	Very high
Likely	Minor	Medium	Medium	High	Very High
Possible	Low	Minor	Medium	High	Very High
Unlikely	Low	Minor	Minor	Medium	High
Rare	Low	Low	Minor	Medium	High

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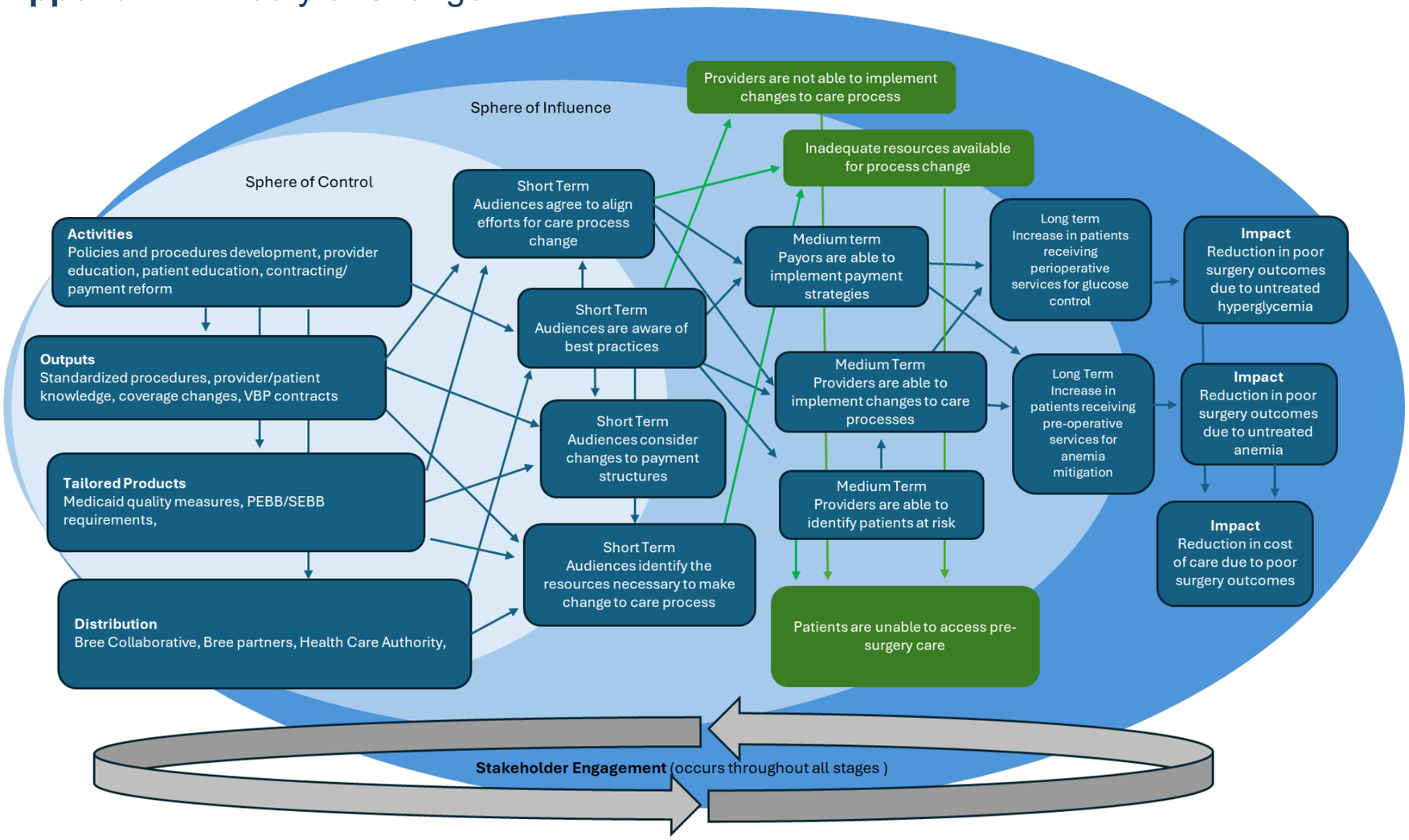
Appendix A Theory of Change



Appendix B Data Collection Matrix

This template is for guidance only and provides generic examples of questions and indicators that your evaluations may consider. A fillable template can be found in the Bree Collaborative Implementation Guide.

Evaluation Questions	**Data: What to collect? When to collect it?**				**Data source: WHERE is it? HOW to collect it? WHO is responsible? ARE permissions required?**
Questions	**Indicators**	**Metrics/Measures**	**Context**	**Data Frequency**	**Recommended data source**
Process/structural improvement					
What changes were made to patient identification policies or process?	Difference between previous and Bree aligned policies or procedures	TBD by evaluator	See Section 3.3	Aligned with clinical considerations; aligned with other initiatives (see section 3.4)	Who: TBD Policies; workflows; QI programs; patient records;
What changes were made to the referrals and pre-surgery care process?	Difference between previous and Bree aligned policies or procedures	TBD by evaluator	See Section 3.3	Aligned with clinical considerations; aligned with other initiatives (see section 3.4)	Who: TBD Policies; workflows; QI programs; patient records;
What changes were made to polices or process for clinical care?	Difference between previous and Bree aligned policies or procedures	TBD by evaluator	See Section 3.3	Aligned with clinical considerations; aligned with other initiatives (see section 3.4)	Who: TBD Policies; workflows; QI programs; patient records;
What changes were made clinician/patient/staff education?	Difference between previous and Bree aligned policies or procedures	TBD by evaluator	See Section 3.3	Aligned with clinical considerations; aligned with other initiatives (see section 3.4)	Who TBD Policies; workflows; QI programs; patient records;
What changes were made to patient access to services?	Difference between previous and Bree aligned policies or procedures	TBD by evaluator	See Section 3.3	Aligned with clinical considerations; aligned with other initiatives (see section 3.4)	Who: TBD Policies; workflows; QI programs; patient records;
What changes were made to data sharing policies or processes?	Difference between previous and Bree aligned	TBD by evaluator	See Section 3.3	Aligned with clinical considerations; aligned with other initiatives (see section 3.4)	Who: TBD Policies; workflows; QI programs; patient records;

	policies or procedures				
What changes were made to financial contracts or coverage policies?	Difference between previous and Bree aligned policies or procedures	TBD by evaluator	See Section 3.3	Aligned with clinical considerations; aligned with other initiatives (see section 3.4)	Who: TBD Policies; workflows; QI programs; patient records;
Effectiveness					
How effective were care coordination activities for screening?	Before/after implementation of Bree guidelines	TBD by evaluator	See Section 3.3	Point in time measures from PDSA; Aligned with the evaluation timeline	Who: TBD Patient records; EHRs; QI programs; patient satisfaction surveys;
How effective was pre-surgery optimization care for a) glycaemic control and b) anaemia?	Before/after implementation of Bree guidelines	TBD by evaluator	See Section 3.3	Point in time measures from PDSA; Aligned with the evaluation timeline	Who: TBD Patient records; EHRs; QI programs; patient satisfaction surveys;
Outcomes					
What were the outcomes of the pre-operative activities?	Before and/or after implementation of Bree guidelines	See section 2.1	See Section 3.3	Point in time measures from PDSA; Aligned with the evaluation timeline	Who: TBD Patient records; EHRs; QI programs; patient satisfaction surveys; See section 2.1
What were the outcomes of the intra-operative activities?	Before and/or after implementation of Bree guidelines	See section 2.1	See Section 3.3	Point in time measures from PDSA; Aligned with the evaluation timeline	Who: TBD Patient records; EHRs; QI programs; patient satisfaction surveys; See section 2.1
What were the outcomes for the post-operative activities?	Before and/or after implementation of Bree guidelines	See section 2.1	See Section 3.3	Point in time measures from PDSA; Aligned with the evaluation timeline	Who: TBD Patient records; EHRs; QI programs; patient satisfaction surveys; See section 2.1
Patient benefits/outcomes	Before and/or after implementation of Bree guidelines	TBD by evaluator	See Section 3.3	Aligned with the evaluation timeline	Who: TBD Billing records; patient records; budgeting records; See section 2.1
Impact of Guidelines					
Reduction in post-surgery adverse events due to poor glycemic control	Before/after implementation of Bree Guidelines	See section 2.5 for definitions	See Section 3.3	Aligned with clinical considerations and evaluation timeline (Monthly, bi-monthly, quarterly, bi-annually, annually)	Who: TBD CDR; APCD; clinical records
Reduction in post-surgery adverse events due to anaemia	Before/after implementation of Bree Guidelines	See section 2.5 for definitions	See Section 3.3	Aligned with clinical considerations and evaluation timeline (Monthly, bi-monthly, quarterly, bi-annually, annually)	Who: TBD CDR; APCD; clinical records
Reduction in cost of care for due to poor surgical outcomes	Before/after implementation of Bree Guidelines	See section 2.5 for definitions	See Section 3.3	Aligned with clinical considerations and evaluation timeline (Monthly, bi-monthly, quarterly, bi-annually, annually)	Who: TBD CDR; APCD; clinical records
Other patient benefits? (Ex: Newly diagnosis for diabetes and getting appropriate care)		TBD by evaluator	See Section 3.3	TBD	

Lessons Learned					
Barriers and facilitators		TBD by evaluator	See Section 3.3	Post evaluation	Who: TBD Surveys; structured interviews; program documents;
"Pinch-points"		TBD by evaluator	See Section 3.3	Post evaluation	Who: TBD PDSAs, surveys, structured interviews, Key informant interviews
Other Information:	What are you going to track? The concept that will help answer the question	How are you going to track it? How the concept will be measured	What will the indicators be compared to? For example: • specified target values • baseline values • a relevant benchmark or standard a comparison group of comparable non-participants	How often will the indicators be collected? For example: • Weekly • Monthly • Quarterly Annually	**Program management team** via program administrative data. This includes application forms, funding agreements, progress/completion reports, fees collected number of recipients etc. **Policy team** via program policy documents, media reports, etc. **Evaluator** via program documentation and/or literature reviews in collaboration with program/policy teams **Evaluator** via internal or external surveys or interviews and comparative data in collaboration with program/policy teams, data professionals, linked datasets or others as required