



Symptom Management Insights Report

Methodology

Ontario Health (Cancer Care Ontario) | March 2026

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1. Introduction

1.1 Report Background

The **Symptom Management Insights Report** provides Regional Cancer Programs (RCPs) with hospital-specific Your Symptoms Matter-General Symptoms (YSM-GS) and Your Symptoms Matter-General Symptoms+ (YSM-GS+) assessment results and a summary of the actions taken by symptoms and severity. This report consolidates information about the patients who submit these assessments and key metrics of symptom burden and response to support data-driven resource allocation for targeted quality-improvement initiatives. Patients who do not submit a YSM-GS or YSM-GS+ assessment in the reporting period are not included in this report.

The YSM-GS assessment is based on the validated [Edmonton Symptom Assessment System-revised \(ESAS-r\)](#) assessment that prompts respondents to score the severity of nine commonly experienced symptoms among cancer patients (anxiety, depression, drowsiness, lack of appetite, nausea, pain, shortness of breath, tiredness, and lack of wellbeing), while the YSM-GS+ ([ESAS-r+](#)) monitors the same nine items in ESAS-r plus three additional symptoms (constipation, diarrhea, and sleep).

REPORTING PERIOD

This report includes YSM-GS and YSM-GS+ data from 2017 to the most recently completed calendar year. Due to the reporting period, both YSM-GS and YSM-GS+ assessments will have been completed at participating sites across Ontario. YSM-GS+ was piloted at select sites in 2020, with full adoption rolling out from June 2022 to early 2024.

When discussed together, both assessments will herein be referred to as "YSM."

CARE PARTNER ACKNOWLEDGEMENT

This report acknowledges the invaluable role of care partners in supporting and managing patients' symptoms. While their impact could not be quantified in the development of this report, they meaningfully contribute to the data we rely on. We recognize that care partners are integral to supporting patients throughout their cancer journey and specifically relating to this report: getting to and from appointments with their primary and supportive oncology care teams, completing their YSM assessments, and visits to emergency departments (EDs).

1.2 Overview of Report Metrics

Responses to YSM screens are monitored by tracking the following metrics by site, submission year and phase of care (where applicable):

- 1) ED utilization post-screen
- 2) Visits to a mental health provider by severity of depression (patient reported)
- 3) Visits to a dietitian by severity of appetite loss (as reported by patients on YSM)
- 4) Patient-reported experience of support for emotional and physical symptoms using the Your Voice Matters (YVM) survey

1.3 Acronym List

ALR = Activity Level Reporting
CCAC = Community Care Access Centre
CPG = clinical practice group
ED = emergency department
EDW = Enterprise Data Warehouse
EMR = electronic medical record
ePREM = electronic Patient Reported Experience Measures
ICD-10-CA = International Statistical Classification of Diseases and Related Health Problems,
Tenth Revision, Canada
ICD-O-3 = International Classification of Diseases for Oncology, Third Edition
ID = identification
ISAAC = Interactive Symptom Assessment and Collection
NARCS = National Ambulatory Care Reporting System
OCR = Ontario Cancer Registry
OH = Ontario Health
PSO = psychosocial oncology
PREM = Patient Reported Experience Measure
PROM = Patient Reported Outcome Measure
RCP = Regional Cancer Program
RPDB = Registered Persons Database
YSM = Your Symptoms Matter - General Symptoms and General Symptoms+
YSM-GS = Your Symptoms Matter - General Symptoms
YSM-GS+ = Your Symptoms Matter - General Symptoms+
YVM = Your Voice Matters

2. Cohort Methodology

YSM screens are collected or manually uploaded into the Interactive Symptom Assessment and Collection (ISAAC) system and extracted for analysis through the ISAAC Replication Database. Assessments submitted from January 2017 to December of the most recently completed calendar year are included in this report (data availability of reported metrics are lagged by 3 months; full data for a calendar year is only complete by March/April of each year). For patients with more than one YSM assessment on the same date, the complete assessment was included. If both were complete, the assessment with the higher score was included.

2.1 Inclusion Criteria

YSM screens were included in the analysis cohort if:

- Screens were submitted 60 days prior to the most recent diagnosis date for each cancer patient who submitted a screen in the reporting period
- Screens were submitted by patients aged 18 to 106 years
- Screens were submitted by patients with a valid 10-digit Ontario health card number (required for data linkage)
- Screens were completed at Regional Cancer Centres and participating partner sites
- Screens were completed by patients with cancer cases in the following clinical practice groups (CPGs): LUNG, PRIMARY UNKNOWN, GENITOURINARY, OTHER CANCERS, CENTRAL NERVOUS SYSTEM, HEAD AND NECK, BREAST, SARCOMA, GASTROINTESTINAL, GYNAECOLOGICAL, HAEMATOLOGY, SKIN, ENDOCRINE

Screens submitted to the ISAAC system without any scored symptoms are included in the report. The "NA: Missing Symptom" severity category includes screens with no score for the selected symptom and those without scores for any symptoms.

2.2 Exclusion Criteria

YSM screens were excluded from the analysis cohort if:

- Screens were completed after the patient's date of death in the Registered Persons Database
- Screens were completed by patients with cancer cases in the following CPG categories: BENIGN NEOPLASMS, NON-NEOPLASTIC DIAGNOSES, UNCERTAIN/ UNSPECIFIED SITES, Unknown, Not Applicable. "Not Applicable" is a valid category in the Activity Level Reporting Database but it is excluded since no disease site information is provided.

- Screens were completed by patients with in situ melanoma and in situ skin cancer cases (since these cancer cases do not warrant YSM screening)
- The master numbers for test sites (e.g. 9999) or non-ambulatory facilities that were not expected to collect Patient Reported Outcome Measures (PROMs) (e.g. NORTH SIMCOE MUSKOKA CCAC) were excluded.

3. Report Metrics Methodology

3.1 Patient Characteristics

This report page summarizes the characteristics of the patients who completed YSM screens in the reporting period. Distributions by age group, sex, channel, disease site, and Ontario Marginalization Index (ON-Marg) dimensions are provided.

3.1.1 Filters for Report Visualizations

The report filters outlined below further stratify the age group, sex, channel, etc. distributions to provide users with additional insights by submission year, RCP, facility, symptom, symptom severity, and phase of care.

- **Submission Year** filters results by the year that the cancer patient submitted the YSM screen to the site.
- **Ontario/RCP/Facility** filters are organized as a hierarchy grouping all participating sites into one of the 14 RCPs and the individual facility numbers and names. This filter only allows for single select. Data aggregated across all sites in the province can be found by selecting for "Ontario" in the dropdown.
- The **Symptom** dropdown filters volumes and visuals by the 12 symptoms included in the YSM assessments.
- The **Symptom Severity** dropdown filters the results to show only screens that match a selected severity level for the chosen symptom. Screens are grouped by severity using the following definitions: 0 = no symptoms, 1-3 = low severity, 4-6 = moderate severity, and 7-10 = high severity.
- The **Phase** list filters the data to show screens completed by cancer patients in the first 12 months from their diagnosis date and screens submitted after the diagnosis year.

3.1.2 Data Sources or Assets

- ISAAC Replication Database
- Ontario Cancer Registry (OCR)
- Activity Level Reporting (ALR) Database
- Registered Persons Database (RPDB)
- Postal Code Conversion File + (PCCF+), version 8A
- Ontario Marginalization Index (ON-Marg)

3.1.3 Methods for Descriptive Metrics

Numerator and denominator counts are reported at the screen level (i.e., the unit is "screens") for all descriptive metrics.

AGE GROUP

The age group distribution provides insight into the age structure of patients who complete YSM assessments at the site level, over time and by symptom, symptom severity, or phase of care. The percentage calculation applied for the age group distribution visual is outlined in **Table 3.1**.

Age group categories include ages ranging from 18 to 106 years.

- Age groups used in this report are 18-39 years, 40-54 years, 55-64 years, 65-74 years, 75-84 years, and 85+ years.

Table 3.1 Age group distribution calculation

Metric	Metric Description	Denominator	Numerator
Age group distribution	Percent of YSM screens submitted by age group	Total number of YSM screens for the filter selections	Number of screens within the age group

YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

SEX

The sex distribution provides insight into the proportion of females and males who complete YSM assessments at the site level, over time and by symptom, symptom severity, or phase of care. The percentage calculation applied for the sex distribution visual is outlined in **Table 3.2**.

Sex categories in the report include female, male, and other.

Table 3.2 Sex distribution calculation

Metric	Metric Description	Denominator	Numerator
Sex distribution	Percent of YSM screens submitted by sex	Total number of YSM screens for the filter selections	Number of screens within the sex category

YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

CHANNEL

The ISAAC system collects PROMs and patient reported experience measures (PREMs) submitted on paper or electronically on-site at the hospitals or via personal devices at home for various conditions, including cancer. Channel information is collected by ISAAC to record how YSM assessments (and other PROMs/PREMs) were submitted (e.g. whether by home channel, kiosk, or site Electronic Medical Record, etc.).

The distribution by channel shows most common submission or data collection methods used for YSM assessments across participating sites. Channel descriptions can be found in **Table 3.3.1**. The percentage calculation applied for the channel distribution visual is outlined in **Table 3.3.2**.

Table 3.3.1 Channel labels and descriptions

Channel	Channel ID	Description
ISAAC-Kiosk	1	Responses were entered directly in ISAAC by the patient, using a site-configured ISAAC device, such as an iPad or a standing kiosk.
ISAAC-Home	2	Responses were entered directly in ISAAC by the patient using their own device, such as smartphones, tablets, or computers.
Site Direct Entry in ISAAC/File Upload	5	Responses were entered in the ISAAC Admin Portal (manual entry or file upload) by the site administrator, using data collected at the site on paper or electronically via the EMR. This channel will stop being used once channel IDs 11-13 go live.
Site EMR	6	Responses were collected in the site’s EMR and sent to ISAAC through integration.
Site File Upload-Electronic	12	Responses were collected via the site’s EMR and bulk uploaded into the ISAAC Admin Portal by a site administrator using the file-upload functionality.
Site File Upload-Paper	11	Responses were collected on paper at the site and bulk uploaded into the ISAAC Admin Portal by a site administrator using the file-upload functionality.
Site Direct Entry in ISAAC	13	Responses were entered in the ISAAC Admin Portal by a site administrator using the manual-entry function.
Other	4, 7-10	Channel categories are no longer in use but may still be found in historical screens (pre-October 2016). Screens with this channel label would indicate an ISAAC system error that will need to be investigated.
Unknown	3	Submission method cannot be determined.

EMR = Electronic medical record, ID = identification, ISAAC = Interactive Symptom Assessment and Collection

Table 3.3.2 Channel distribution calculation

Metric	Metric Description	Denominator	Numerator
Channel distribution	Percent of YSM screens submitted by Channel (refer to Table 3.3.1 for a detailed list)	Total number of YSM screens for the filter selections	Number of screens within the channel category

YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

CPG

Disease site distributions in this report are produced using CPGs. CPG mapping is a system developed by Ontario Health (OH) that organizes disease codes. Facilities submit either ICD-10-CA diagnosis codes or ICD-O-3 topography and morphology codes, which are then mapped to these CPG disease sites. A comprehensive list of CPG mapping can be found in Appendix 1.39 of the [OH Data Book](#).

Distributions by CPG provide insight into the most recent cancer diagnosis for the patient who screened with YSM. The calculation method is outlined in **Table 3.4**.

Table 3.4 CPG distribution calculation

Metric	Metric Description	Denominator	Numerator
CPG distribution	Percent of YSM screens submitted by CPG	Total number of YSM screens for the filter selections	Number of screens within the CPG category

CPG = clinical practice group, YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

ONTARIO MARGINALIZATION INDEX (ON-MARG)

The Ontario Marginalization Index (ON-Marg) is an area-based index that uses census-derived demographic factors to assess four dimensions of health and social marginalization across Ontario's geographic units. Distributions by ON-Marg dimension are organized by quintile, where the lowest quintile (assigned a value of 1) signifies that the patient resides in the 20% least marginalized areas by dissemination area, ranked within each RCP catchment area, while a value of 5 indicates that they reside in the 20% most marginalized areas of their RCP. Dissemination area information for each patient was assigned using the Postal Code Conversion File Plus (PCCF+) version 8A.

A brief summary of the four ON-Marg Dimensions is provided below (more information can be found on Public Health Ontario's [ON-Marg webpage](#)):

- **Household and Dwelling** (previously called "Residential Instability") looks at how stable and connected neighbourhoods and families are in a geographical area. It measures housing types, how crowded homes are, family structures, how many residences are not owned, and how often people move. More stable and connected communities are thought to provide support and reduce social isolation during times of hardship, promoting better mental health and overall well-being.
- **Material Resources** (previously known as "Material Deprivation") measures whether people and communities have the socioeconomic resources to live well - including safe housing, access to education, family structure, income sources and employment status. Financially stable individuals are more able to make healthy choices due to greater access to healthcare and information. In contrast, those experiencing economic hardship often face unstable employment, low income, and obstacles to meeting basic needs - factors that can negatively affect both physical and mental health.
- **Age and Labour Force** (previously known as "Dependency") captures the concentration of individuals without employment income in an area, including seniors, children, and unpaid workers or adults unable to work due to disability. This dimension provides insight into the economic vitality of a community and has implications for the allocation of infrastructure and

resources. For example, ageism can lead to reduced healthcare quality, fewer community services, and increased social isolation.

- **Racialized and Newcomer Populations** (previously called "Ethnic Concentration") measures the proportion of newcomers and/or non-white, non-Indigenous populations in an area. Racialized groups often face discrimination that limits access to stable jobs and essential resources, impacting their health and well-being. Past unfair treatment based on race, religion, culture, or language can also discourage them from seeking healthcare, even when it's available.

The calculation for the ON-Marg visuals in the report is outlined in **Table 3.5**.

Table 3.5 Quintile distribution calculation for ON-Marg Dimensions

Metric	Metric Description	Denominator	Numerator
Quintile distribution for each ON-Marg dimension	Percent of YSM screens within the quintile for the selected ON-Marg dimension	Total number of YSM screens for the filter selections	Number of screens within the ON-Marg dimension quintile

YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

3.1.4 Data Limitations and Considerations

Disease site information was extracted from the ALR Database. Windsor Regional Health (facility #933) experienced a cyber-attack in October 2023, resulting in only partial ALR data recovery for October-December 2023 and no systemic data for November 2023. This created a permanent ALR data gap that cannot be resolved.

3.2 Post-Screen Emergency Department Utilization

3.2.1 Objective

This metric measures the percentage of YSM screens that were followed by an unscheduled emergency department (ED) visit within 7 or 14 days. It provides insights into trends in ED utilization within these timeframes and potentially highlight areas where better symptom response could improve patient outcomes. Both screen-level and patient-level versions of this metric are provided in the report.

3.2.2 Metric Methodology

DATABASES

- ISAAC Replication Database
- National Ambulatory Care Reporting System (NACRS)

METRIC CALCULATION

Numerator and denominator counts are reported at the screen and patient level (i.e., where the unit is "screens" or "patients," respectively). For the screen-level version of this metric, all screens are included in the denominator (subject to the filter selections made in the report). In the patient-level version of the metric, all values are unique patient counts specific to the filters and stratifications applied to avoid double-counting; values should not be summed as double-counting would inflate the resulting patient total.

The available stratifications for this metric are listed below:

Screen-level metrics

Filters (applicable to all visuals):

- Submission year (multi-select)
- Ontario/RCP/Facility (single select)

Stratifications in visuals (tables only):

- Symptom
- Symptom severity

Patient-level metrics

Filters (applicable to all visuals):

- Submission year (single select)
- Ontario/RCP/Facility (single select)

Stratifications in visuals (tables only):

- Symptom + severity (combined)*

*For the patient-level version of this metric, a unique patient count is calculated for each symptom and symptom severity level (low, moderate, high, etc.) combination. To avoid double-counting patients, values between symptom severity levels should not be summed.

For this metric, results reporting is done through two primary visuals: (1) reporting by symptom severity, and (2) reporting by disease site. Symptom severity visuals provide the percentage of screens or patients with post-screen ED utilization for each symptom and symptom severity separately or for all symptom scores summed ("Total Scores"); **Table 3.6** outlines the numerators and denominators of the metrics used in these visuals. Disease site stratifications were made using the CPG categorization of the cancer diagnosis; results can be filtered by submission year and RCP/facility but are presented for all symptoms and symptom severities combined. **Table 3.7** provides the numerators and denominators for the metrics presented in these visuals. Low volumes at certain facilities may lead to extensive suppression of counts ($n < 6$) to comply with OH's privacy guidelines.

Table 3.6 Numerators and denominators for Symptom Severity Visuals

Metric Component	Patient-Level	Screen-Level
Denominator	Total number of patients who reported the symptom severity level on the YSM at least once in the reporting period	Total number of YSM screens reporting the symptom and severity level
Numerator*	Number of patients screening with YSM who visited the ED 7 or 14 days post-screen	Number of YSM screens followed by an ED visit 7 or 14 days post-screen

Metric Component	Patient-Level	Screen-Level
Interpretation Example	<i>If data was filtered to show results for screens with high-severity pain:</i> "% of patients who scored their pain symptoms as highly severe at least once visited the ED within 7 (or 14) days of their screen."	<i>If data was filtered to show results for screens with high-severity pain:</i> "% of screens reporting high-severity pain were followed by an ED visit within 7 (or 14) days."

ED = emergency department, YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

* The numerator is a subset of the denominator.

Table 3.7 Numerators and denominators for Disease Site Visuals

Metric Component	Patient-Level	Screen-Level
Denominator	Total number of patients with a diagnosis in the designated CPG (or disease site) who completed a YSM screen in the reporting period	Total number of YSM screens submitted by patients most recently diagnosed with a cancer in the designated CPG (or disease site)
Numerator*	Number of patients screening with YSM who visited the ED 7 or 14 days post-screen	Number of YSM screens followed by an ED visit 7 or 14 days post-screen
Interpretation Example	<i>Interpreting the breast cancer percentage on the visual:</i> "% of breast cancer patients who completed the YSM visited the ED within 7 (or 14) days of screening, at least once, in the selected submission year(s)."	<i>Interpreting the breast cancer percentage on the visual:</i> "% of screens completed by breast cancer patients were followed by an ED visit within 7 (or 14) days in the selected submission year(s)."

ED = emergency department, YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

* The numerator is a subset of the denominator.

ANALYTICAL CONCEPTS

- **Symptom severity** categories group the patient-reported symptom scores using the following ranges: 0 = no symptoms, 1-3 = low severity, 4-6 = moderate severity, and 7-10 = high severity.
- **Total Score Severity** is calculated by summing across the scores of all symptoms in a screen (9 symptoms for YSM-GS and 12 for YSM-GS+). Only screens where all symptoms are scored by the patient will have a total score - incomplete screens are grouped under the category "5: Screen Incomplete." The ranges of each total score severity category for YSM-GS are 0 = no symptoms, 1-35 = low total severity, 36-62 = moderate total severity, and 63-90 = high total severity; while the ranges for YSM-GS+ are 0 = no symptoms, 1-47 = low total severity, 48-83 = moderate total severity, and 84-120 = high total severity.

3.2.3 Considerations or Limitations

- Visits to the ED at any hospital is counted in this metric. The reason for the visit may be related to factors other than the patient's cancer diagnosis.
- Fewer records with constipation, diarrhea, and trouble sleeping scores will be counted for this reporting period since a phased rollout of YSM-GS+ only started in 2022.
- Niagara Health's new Health Information System (implemented on November 9, 2024) caused workflow changes and short-term data issues. NACRS data from November 9, 2024 to March 31, 2025 is affected and report results should be interpreted cautiously.

3.2.4 Interpretation Notes for Report Visualizations

- Symptom and Symptom Severity filters only change the results presented on the tables titled "Screens with ED visit within X Days by Symptom" or "Patients with ED visit within X Days by Symptom" (where X = 7 or 14).
- The horizontal bar graph displaying the percentage of screens followed by an ED visit (or percentage of patients with a post-screen ED visit) within 7 or 14 days by disease site can only be filtered by submission year and RCP/Facility. Low volumes at certain facilities may lead to extensive suppression of counts ($n < 6$) to comply with OH's privacy guidelines.
 - For patient-level percentages, the numerator and denominator values are unique patient counts for the filters selected and should not be summed across submission years, disease sites, RCPs, or facilities to avoid double-counting patients.
- Stratification of results by phase of care was not implemented for this metric. Exploratory analyses did not show significant differences when comparing between screens completed by patients in the first 12 months from the diagnosis date ("diagnosis year") versus those in month 13 onwards from diagnosis ("post-diagnosis year").

3.3 Visits to a Mental Health Provider by Severity of Depression

3.3.1 Objective

This metric measures visits to a mental health provider (i.e., social worker, spiritual counsellor, psychologist, or psychiatrist) within 30 days of an YSM screen, stratified by reported severity of depression (no symptoms, low/moderate/high severity). Results are also stratified by submission year, Ontario/RCP/Facility, and phase of care (diagnosis year vs. post-diagnosis year).

Percentages for this metric are calculated with two different denominators:

- All patients
 - This metric calculates the proportion of screens followed by a visit with a mental health provider within 30 days.
 - This version of the metric measures overall post-screen use of mental health provider services by depression severity.

- Patients with psychosocial oncology (PSO) visit
 - Only the screens of patients who have had at least one outpatient PSO clinic visit within the reporting period and 60 days post-period (i.e., January 2017 to February 2025) are included.
 - The metric monitors mental health service use among patients with recorded outpatient PSO activity before or (at least 60 days) after screening. Restricting the denominator to this subgroup ensures that only patients with confirmed PSO need are counted.

3.3.2 Metric Methodology

DATABASES

- ISAAC Replication Database
- ALR Database

METRIC CALCULATION

Numerator and denominator counts are reported at the screen level (i.e., the unit is "screens"). Percentages are available with the following stratifications for this metric:

Filter list

- Ontario/RCP/Facility (single select)
- Depression severity (multi-select)
- YSM submission year (multi-select)
- Phase of care (i.e., diagnosis year vs. post-diagnosis year) (multi-select)

The metric calculations and example interpretations are outlined below:

Metric Component	All Patients	Patients with PSO Visit
Objective	Measures whether a mental health provider visit is taking place post-screen and how soon it occurs	Measures whether a mental health provider visit occurs within a reasonable amount of time, but only for patients who received any PSO services previously or post-screen.
Denominator	Number of YSM screens for the selected depression severity level(s)	Number of YSM screens for the selected depression severity level(s) that were completed by patients with PSO clinical activity from the start of the reporting period up to 60 days post-period
Numerator*	Number of screens with a mental health provider visit within 30 days	Number of screens with a mental health provider visit within 30 days

Interpretation Example	For screens with high-severity depression: "Out of all submitted screens, % of high-severity depression screens were followed by a mental health provider visit within 30 days."	For screens with high-severity depression: "For patients who received PSO care before or after screening, % reporting high-severity depression were followed by a mental health provider visit within 30 days."
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PSO = psychosocial oncology, YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

*The numerator is a subset of the denominator.

ANALYTICAL CONCEPTS

- **Mental Health Provider** is defined as a social worker, spiritual counsellor, psychologist, or psychiatrist. Visits to a spiritual counsellor or Indigenous navigator are extracted from the ALR by identifying PSO activity records where the health care provider specialty is "16000" (Spiritual/Religious Counselling Therapy).
- **Depression severity** categories group the patient-reported symptom scores using the following ranges: 0 = no symptoms, 1-3 = low severity, 4-6 = moderate severity, and 7-10 = high severity.

3.3.3 Considerations and Limitations

- Time from referral to a PSO provider to initial visit may take up to 14 days. As such, the wait time from the YSM screen to the PSO provider visit to start treatment can take more than 14 days and up to 30-45 days.
- Only PSO provider visits within the RCP are counted. No information about community-based PSO services is collected in the ALR.
- Windsor Regional Health (facility #933) experienced a cyber-attack in October 2023, resulting in only partial ALR data recovery for October to December 2023 and no systemic data for November 2023. This created a permanent ALR data gap that cannot be resolved.

3.3.4 Interpretation Notes for Report Visualizations

- Exploratory analyses showed significant differences in this metric when comparing between screens completed by patients in the first 12 months from diagnosis ("diagnosis year") versus those in month 13 onwards from diagnosis ("post-diagnosis year"). As a result, this metric is stratified by phase of care.

3.4 Visits to a Dietitian by severity of Appetite Loss

3.4.1 Objective

This metric monitors visits to a dietitian within 30 days of an YSM screen, stratified by degree of appetite loss (no symptoms, low/moderate/high severity). Results are also stratified by submission year, RCP/Facility, and phase of care (diagnosis year vs. post-diagnosis year).

Percentages for this metric are calculated with two different denominators:

- All patients
 - With this denominator, the metric calculates the proportion of screens followed by a dietitian visit within 30 days of a reported lack of appetite score.
 - This version of the metric monitors overall post-screen utilization of dietitian services by severity of appetite loss.
- Patients with PSO visit
 - Only the screens of patients who have had at least one outpatient PSO clinic visit within the reporting period and 60-days post-period (i.e., January 2017 to February 2025) are included.
 - The metric monitors dietitian service use among patients with recorded outpatient PSO activity before or (at least 60 days) after screening. Restricting the denominator to this subgroup ensures that only patients with confirmed PSO need are counted.

3.4.2 Metric Methodology

DATABASES

- ISAAC Replication Database
- ALR Database

METRIC CALCULATION

Numerator and denominator counts are reported at the screen level (i.e., the unit is "screens"). Percentages are available with the following stratifications for this metric:

Filter list

- Ontario/RCP/Facility (single select)
- Lack of Appetite severity (multi-select)
- YSM submission year (multi-select)
- Phase of care (i.e., diagnosis year vs. post-diagnosis year) (multi-select)

The metric calculation and example interpretation is outlined below:

Metric Component	All Patients	Patients with PSO Visit
Objective	Measures whether a dietitian visit is taking place post-screen and how soon it occurs	Measures whether a dietitian visit occurs within a reasonable amount of time, but only for patients who received any PSO services previously or post-screen

Denominator	Number of YSM screens for the selected severity level(s) of appetite loss	Number of YSM screens for the selected severity level(s) of appetite loss that were completed by patients with PSO clinical activity from the start of the reporting period up to 60 days post-period
Numerator*	Number of screens with a dietitian visit within 30 days	Number of screens with a dietitian visit within 30 days
Interpretation Example	<i>For screens with severe appetite loss:</i> "% of screens reporting severe appetite loss were followed by a dietitian within 30 days."	<i>For screens with severe appetite loss:</i> "For patients who received PSO care before or after screening, % of screens reporting severe appetite loss were followed by a dietitian visit within 30 days."

YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

* The numerator is a subset of the denominator.

ANALYTICAL CONCEPTS

- **Lack of Appetite severity** categories group the patient-reported symptom scores using the following ranges: 0 = no symptoms, 1-3 = low severity, 4-6 = moderate severity, and 7-10 = high severity.

3.4.3 Considerations and Limitations

- Time from referral to a PSO provider to initial visit may take up to 14 days. As such, the wait time from the YSM screen to the PSO provider visit to start treatment will take more than 14 days and up to 30-45 days.
- Only PSO provider visits within the RCP are counted. No information about community-based PSO services is collected in the ALR.
- Windsor Regional Health (facility #933) experienced a cyber-attack in October 2023, resulting in only partial ALR data recovery for October to December 2023 and no systemic data for November 2023. This created a permanent ALR data gap that cannot be resolved.

3.4.4 Interpretation Notes for Report Visualizations

- Exploratory analyses showed significant differences in this metric when comparing between screens completed by patients in the first 12 months from diagnosis ("diagnosis year") versus those in month 13 onwards from diagnosis ("post-diagnosis year"). As a result, this metric is stratified by phase of care.

3.5 Patient-Reported Experience of Emotional and Physical Symptom Support

3.5.1 Objective

This metric assesses whether patients screened with YSM report positive care experiences and support for physical and emotional symptoms, based on YVM surveys completed within 90 days post-screen.

3.5.2 Metric Methodology

DATABASES

- ISAAC Replication Database
- YVM Database in the Enterprise Data Warehouse (EDW)
- Manual submission of YVM responses from Princess Margaret Cancer Centre

METRIC CALCULATION

Numerator and denominator counts are reported at the screen level (i.e., the unit is "screens"). Percentages are available with the following stratifications for this metric:

List of filters and stratifications

Filters:

- RCP/Facility (multi-select)
- Symptom severity (single select)
- Submission year (multi-select) based on YSM date
- Disease site (multi-select)

Stratifications in visuals:

- Symptom (multi-select)

The metric calculation and example interpretation is outlined below:

Metric Component	Component Description
Denominator	Number of YVM screens, completed within 90 days after a YSM screen, that record either a positive or negative response for the selected questions under the chosen filters and stratifications*
Numerator**	Number of screens with a positive response (Refer to the positive response definition in Part B and the YVM questions used for each YSM symptom in Part C of the " Analytic Concepts " section below for more information)

Interpretation Example	<p><i>If selected filters are for screens reporting high-severity pain:</i> "% of high severity pain screens with a YVM 90-days post-screen reported a positive experience discussing their physical symptoms with a care team or healthcare provider."</p> <p><i>If selected filters are for screens reporting moderate-severity anxiety:</i> "% of moderate severity anxiety screens with a YVM 90-days post-screen reported a positive experience discussing their emotional worries and concerns with a care team or healthcare provider."</p>
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YSM = Your Symptoms Matter - General Symptoms and General Symptoms+, YVM = Your Voice Matters

* Patients that skip the questions of interest or responded that the question(s) does not apply are excluded.

** The numerator is a subset of the denominator.

ANALYTICAL CONCEPTS

A. YVM Questions for this Metric

Prior to December 2023, the original YVM was collected across 35 participating sites in Ontario. In the original YVM, the questions used for this metric were rated on a Likert scale (1 = worst possible experience, 5 = best possible experience, or not applicable). A YVM survey for virtual care visits was launched in 2021 with the same question-response format.

Figure 3.1 Questions from the original YVM used for this metric

Based on your last visit, how would you rate your healthcare provider on the following on a scale from 1 to 5, with 1 being the worst possible experience and 5 being the best possible experience:

	Worst					Best	N/A*
	1	2	3	4	5		
<i>8b. Discussed your physical symptoms**</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>8c. Discussed your emotional worries and concerns**</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*N/A = not applicable, YVM = Your Voice Matters

**In the YVM Virtual Care Survey, question 8b is question 8, while 8c is question 9.

On December 4, 2023, the redesigned YVM was launched across all participating sites; partner sites continued to be onboarded as of the 2025-26 fiscal year, with over 50 sites administering YVM. In the redesigned YVM, the responses were changed to “Yes”, “Somewhat”, “No”, or “This does not apply.”

Figure 3.2 Questions from the redesigned YVM used for this metric

	Yes	Somewhat	No	This does not apply*
11a. Did your cancer care team talk with you about your physical symptoms (examples: pain, nausea) as much as you wanted?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11c. Did your cancer care team talk with you about your emotional worries and concerns (examples: fear, sadness) as much as you wanted?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

YVM = Your Voice Matters

*When this response is selected, the patient will be allowed to skip to the next relevant question: i.e., the survey flow will skip to question 11c from 11a, and question 12 from 11c.

B. Defining Positive Response in YVM

In the **original YVM survey**, respondents who select 1 through 3 on the Likert scale were classified as having a negative experience, while those who select 4 or 5 were classified as having a positive experience. Respondents who select "N/A", or skip the question, were excluded from the percent positive score calculation. (See **Figure 3.3** for a visual breakdown)

Figure 3.3 Positive response definition for original YVM

Based on your last visit, how would you rate your healthcare provider on the following on a scale from 1 to 5, with 1 being the worst possible experience and 5 being the best possible experience:

	Worst				Best	N/A*
	1	2	3	4	5	
8b. Discussed your physical symptoms **	Negative	Negative	Negative	Positive	Positive	Excluded
8c. Discussed your emotional worries and concerns **	Negative	Negative	Negative	Positive	Positive	Excluded

*N/A = not applicable, YVM = Your Voice Matters

**In the YVM Survey for Virtual Care, question 8b is question 8, while 8c is question 9.

In the redesigned YVM survey (launched across Ontario in December 2023), respondents who select "Yes" were classified as having a positive experience, while "Somewhat" and "No" were classified as negative experiences. Respondents who select "This does not apply" or skip the question were excluded from the percent positive score. (See **Figure 3.4** for a visual breakdown). As a result of the methodology change, percent positive scores from 2024 should not be directly compared with percent positive scores reported from 2017-2023.

Figure 3.4 Positive response definition for redesigned YVM

	Yes	Somewhat	No	This does not apply*
11a. Did your cancer care team talk with you about your physical symptoms (examples: pain, nausea) as much as you wanted?	Positive	Negative	Negative	Excluded
11c. Did your cancer care team talk with you about your emotional worries and concerns (examples: fear, sadness) as much as you wanted?	Positive	Negative	Negative	Excluded

YVM = Your Voice Matters

C. Emotional and Physical Symptom Categories for YVM and YSM

For this metric, YSM symptoms were divided into physical and emotional symptom categories to align with the corresponding questions in YVM (see **Table 3.8**). Support of YSM symptoms that are experienced bodily ("physical symptoms") were measured through patient-reported experiences of discussing physical symptoms with a care team or healthcare provider on YVM, while support with YSM symptoms that signal cancer-related distress, depression, or anxiety ("emotional symptoms") were assessed via experiences discussing emotional worries or concerns. The percentage of positive responses on YVM were evaluated for each YSM symptom separately.

Table 3.8 YVM categories for YSM Symptoms

YVM categories	YSM Symptoms
Physical Symptoms	Pain, Tiredness, Sleepiness, Nausea, Lack of Appetite, Shortness of Breath, Constipation*, Diarrhea*, Sleep*
Emotional Worries and Concerns	Anxiety, Depression, Lack of Wellbeing

*NOTE: Number of records with constipation, diarrhea, and trouble sleeping scores will be lower for this reporting period since rollout of YSM-GS+ started in 2022.

YVM = Your Voice Matters, YSM = Your Symptoms Matter - General Symptoms and General Symptoms+

D. Symptom Severity

Symptom severity categories group the patient-reported symptom scores using the following ranges: 0 = no symptoms, 1-3 = low severity, 4-6 = moderate severity, and 7-10 = high severity.

3.5.3 Considerations and Limitations

- Only YSM screens that could be linked to a YVM screen were reported. For each YSM submission, the closest YVM submission within 90 days was identified. If a patient did not complete YSM at a particular appointment, or their nearest YVM submission was over 90 days after YSM, the YSM screen was excluded from reporting.

- YVM questions regarding patient experiences are not mandatory, so it is possible that no response was submitted by a patient for the question(s) of interest. As a result, information from YVM may only be available for emotional symptoms or physical symptoms depending on which questions were skipped.
- The original YVM collected from March 2016 to November 2023 was launched on the electronic Patient Reported Experience Measures (ePREM) platform before being collected by the ISAAC system. After the transition to ISAAC, only completed surveys were recorded (i.e., screens where the "Submit" button was clicked by the respondent). With the launch of the redesigned YVM in December 2023, data collection expanded to include partially completed YVM screens, improving screen volumes. Additionally, screen volumes were further increased as more partner sites onboarded to administer YVM across Ontario.
- Fewer records with constipation, diarrhea, and trouble sleeping scores will be counted for this reporting period since a phased rollout of YSM-GS+ only started in June 2022.

3.5.4 Interpretation Notes for Report Visualizations

- Stratification of results by phase of care was not implemented for this metric. Exploratory analyses did not show significant differences when comparing between screens completed by patients in the first 12 months from the diagnosis date ("diagnosis year") versus those in month 13 onwards from diagnosis ("post-diagnosis year").

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