



Symptom screening improves patient and healthcare system outcomes: implementing the evidence with e-IMPAQc

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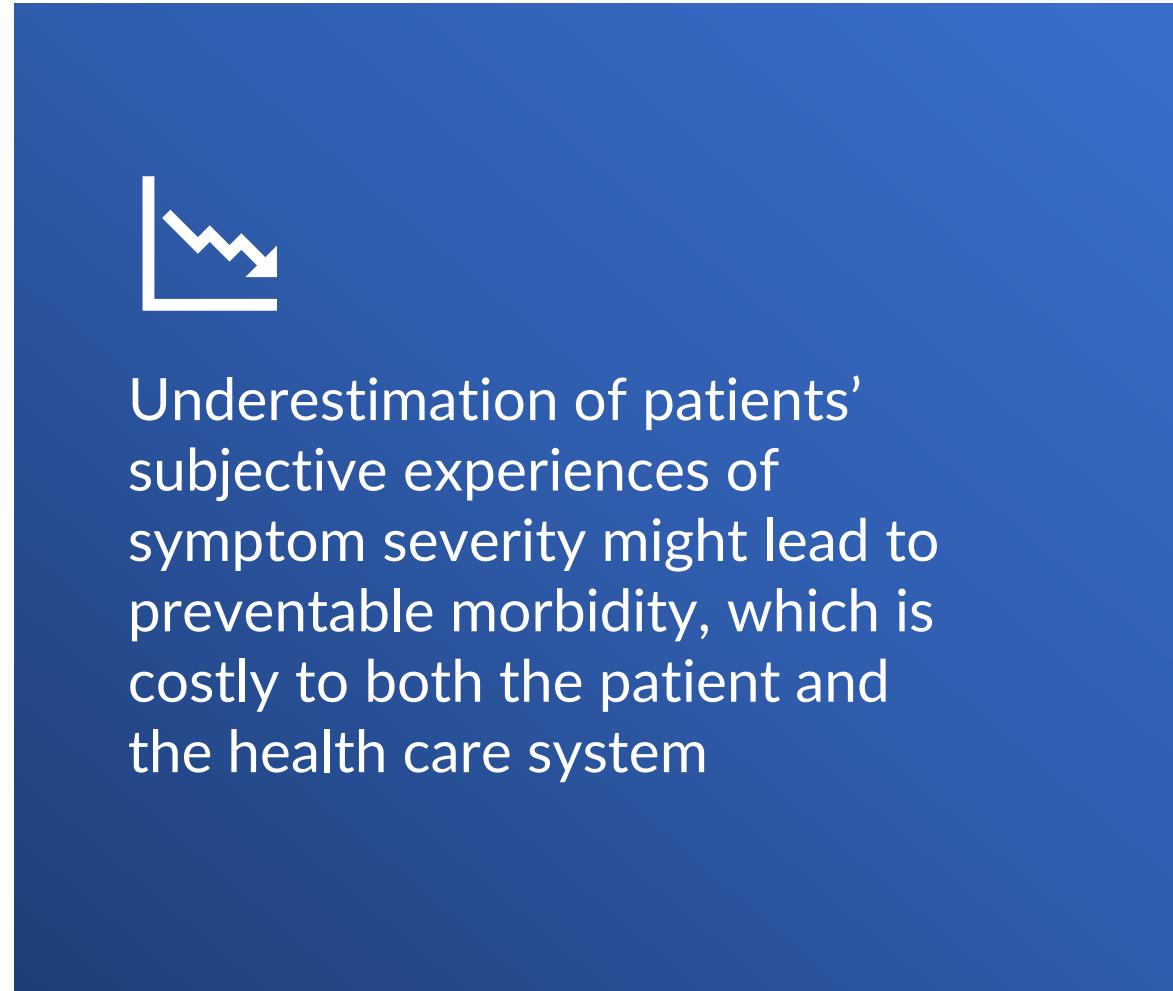
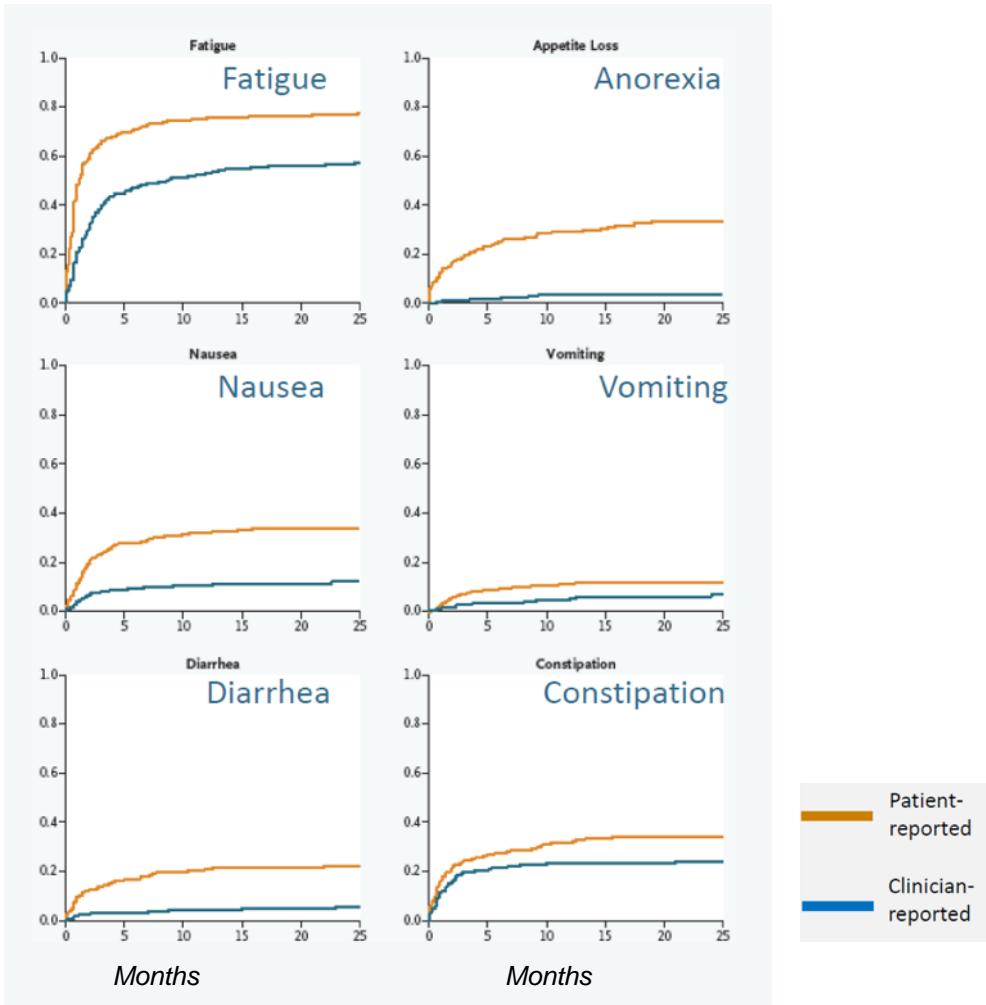
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AGENDA

1. Significance and evidence for symptom screening
2. e-IMPAQc screening program
3. Summary of results to date

The challenge: Patients' symptom burden underestimated in clinical practice

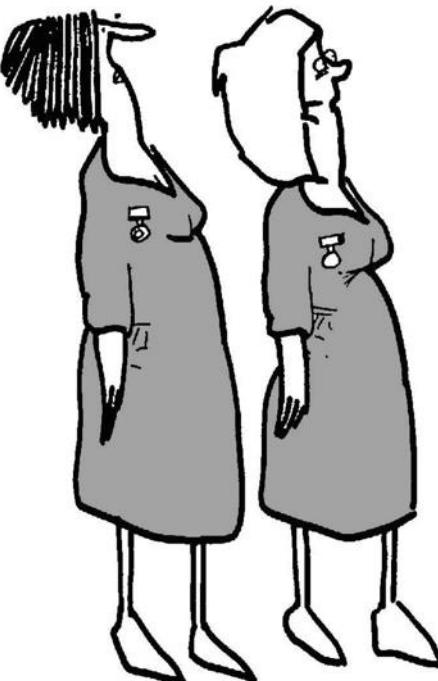


The solution: We need to get the information directly from patients

- Patient-reported outcomes (PROs) data often include QOL, physical symptoms (e.g., pain, fatigue), and psychological symptoms (e.g., distress, anxiety)
- PROs are typically collected using validated questionnaires

Edmonton Symptom Assessment System: (revised version) (ESAS-R)											
Please circle the number that best describes how you feel NOW:											
No Pain	0	1	2	3	4	5	6	7	8	9	10
Worst Possible Pain											
No Tiredness	0	1	2	3	4	5	6	7	8	9	10
(Tiredness = lack of energy)											
No Drowsiness	0	1	2	3	4	5	6	7	8	9	10
Worst Possible Drowsiness											
No Nausea	0	1	2	3	4	5	6	7	8	9	10
Worst Possible Nausea											
No Lack of Appetite	0	1	2	3	4	5	6	7	8	9	10
Worst Possible Lack of Appetite											
No Shortness of Breath	0	1	2	3	4	5	6	7	8	9	10
Worst Possible Shortness of Breath											
No Depression	0	1	2	3	4	5	6	7	8	9	10
(Depression = feeling sad)											
No Anxiety	0	1	2	3	4	5	6	7	8	9	10
(Anxiety = feeling nervous)											
Best Wellbeing	0	1	2	3	4	5	6	7	8	9	10
Worst Possible Wellbeing											
No _____ Other Problem (for example constipation)	0	1	2	3	4	5	6	7	8	9	10
Worst Possible _____											
Patient's Name _____											
Completed by (check one):											
<input type="checkbox"/> Patient											
<input type="checkbox"/> Family caregiver											
<input type="checkbox"/> Health care professional caregiver											
<input type="checkbox"/> Caregiver-assisted											

What is the evidence for the impact of PRO screening programs?



Do you remember when all we had to do was look after people?



The evidence: Many systematic reviews and meta-analyses.....

Strong, consistent evidence	improved patient-provider communication and patient satisfaction
Moderate evidence	PRO data in clinical care generally associated with improved symptom management, including early detection and monitoring of symptoms and symptom-related actions by clinicians, and reduced symptom prevalence and severity (effect sizes variable)
Weaker evidence	impact on patient outcomes such as quality of life (effect sizes mostly small)
Minimal evidence (neglected area)	impact on health service utilisation, eg ED presentations, chemotherapy completion and survival
No integration	with EMR (in oncology); no integrated systems adopted as part of routine care in Quebec

Components of effective PRO screening programs



Regular
systematic
screening



**PRO data fed
back to clinicians**

- Actionable information
- Cross-sectional and longitudinal trends



Real-time alerts



**Follow-up
care**

- Not necessarily referrals!



The use of electronic platforms

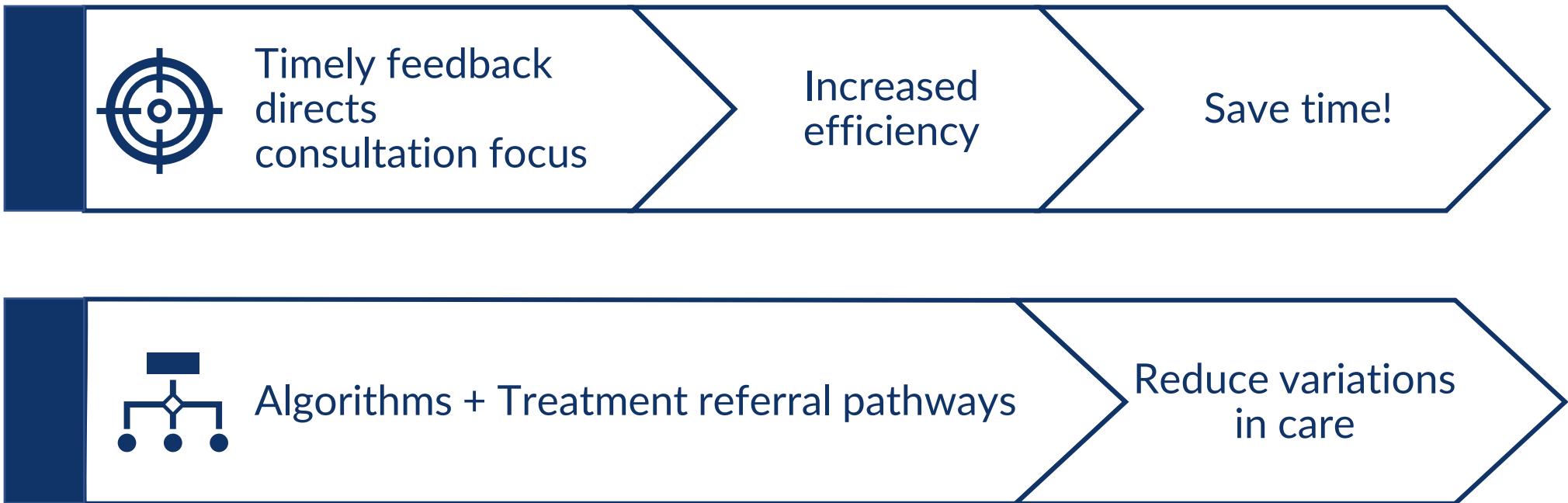
To facilitate patient screening, the use of electronic platforms is considered the preferred method because of:

- ✓ Its general acceptance by patients
- ✓ Versatile use (clinical and non-clinical settings)
- ✓ Its efficiency in translating data into usable formats for clinicians and patients
- ✓ Its ability to create clinical alerts
- ✓ Its ability to integrate data into electronic records.





Use PROs to work “differently”, not more





What are we doing in Quebec in oncology?



2011

PQC released recommendations for distress screening, based on ESAS and Distress Thermometer



2012-2014

Mostly pen-and-paper screening programs initiated in the Province



2015

First electronic e-PRO program (iPEHOC, leadership in ON)



2017

CPAC funding launched:
Improving Quality of Life and Palliative End-of-Life Care through Comprehensive Application of PROs



2018

e-IMPAQc launched



reFOCUS



Objective of e-IMPAQc

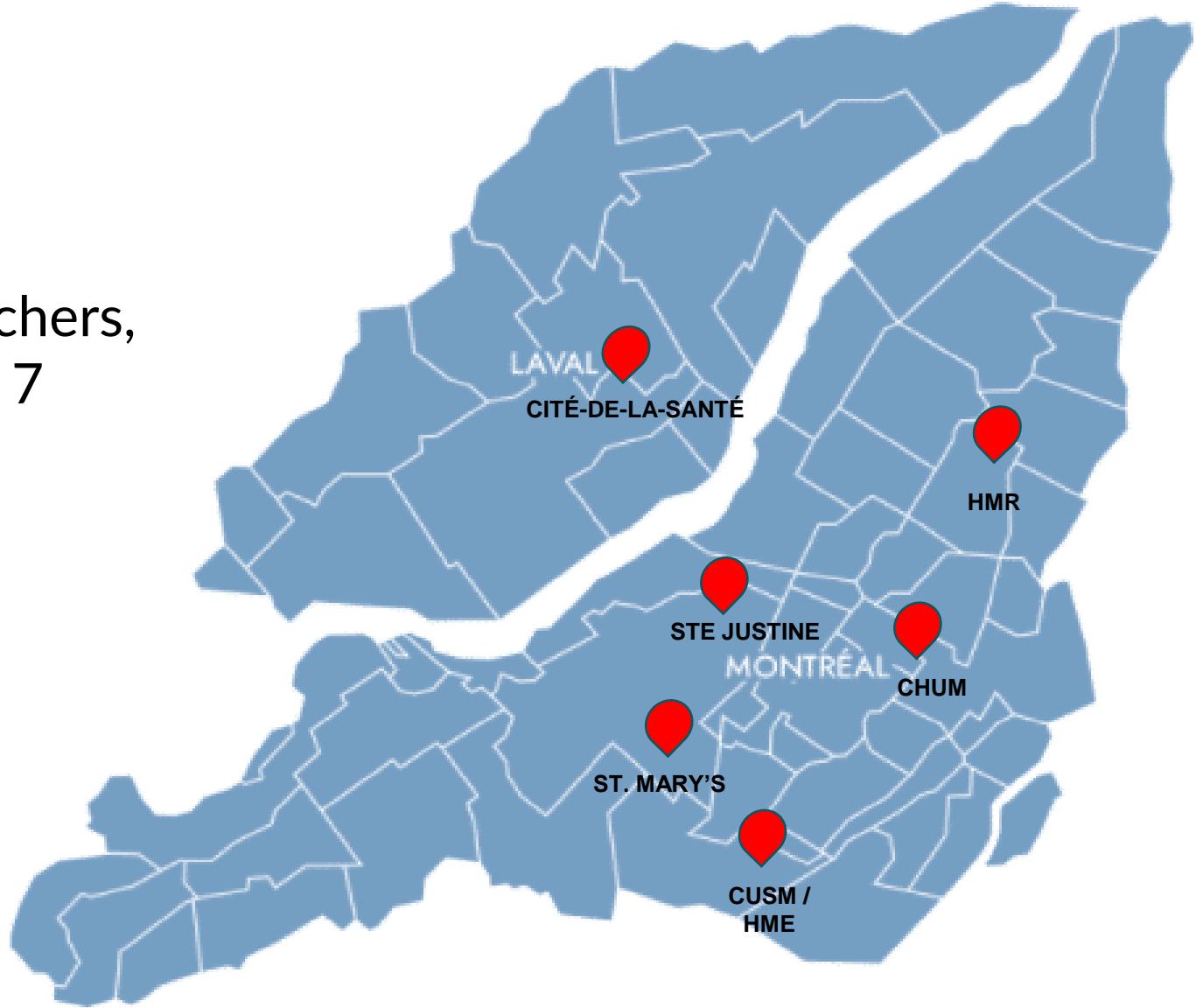
Large-scale deployment of a symptom screening and management program for cancer patients and their caregivers using electronic platforms





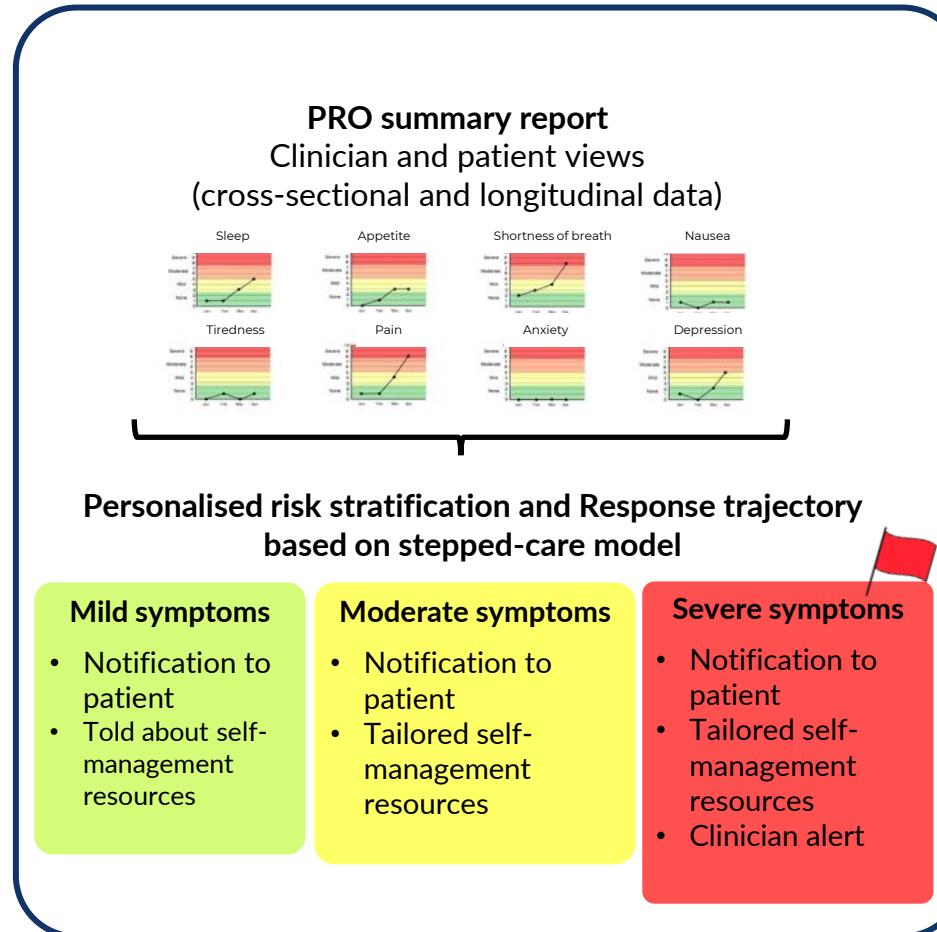
Co-development of e-IMPAQc

49 clinicians, managers, researchers, patients, and caregivers across 7 centres





Overview of the components of e-IMPAQc



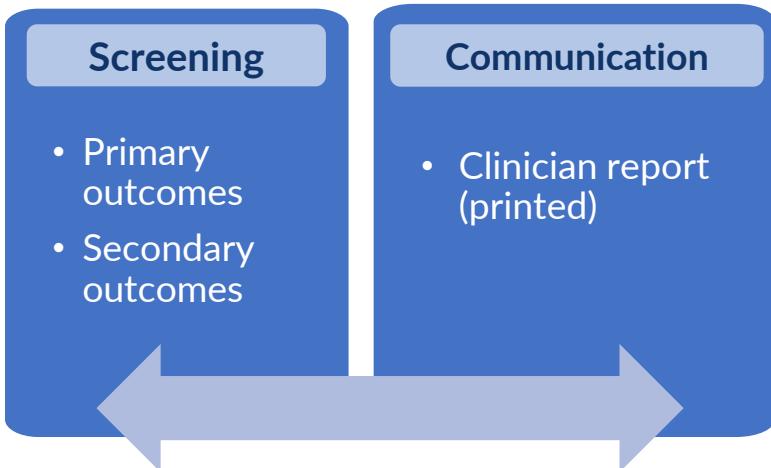
Patient EMR



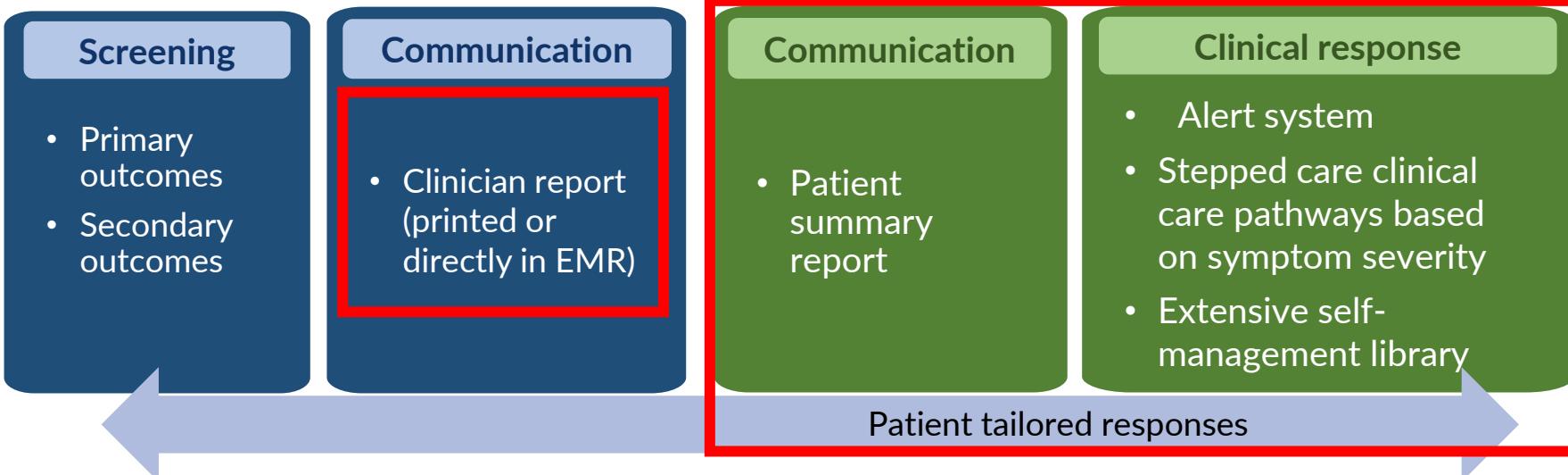


Added value of e-IMPAQc

Many screening programs



e-IMPAQc



Increased
symptom
management
through **greater**
patient
engagement



Our resources are available!

Visit e-impaqc.com/managing-symptoms

The image shows a silver laptop open, displaying the 'Managing symptoms' section of the e-IMPAQc website. The website has a light blue header with the e-IMPAQc logo, navigation links (Home, About, Managing symptoms, Using e-IMPAQc, Health professionals, Contact, FR), and a small illustration of a man and a woman. The main content area has a light blue background and features the title 'Managing symptoms'. Below the title is a subtext: 'e-IMPAQc's free and easy-to-use tools help patients and caregivers track and manage the symptoms associated with cancer, cancer treatment, and survivorship.' To the right of the text is another small illustration of a man and a woman. The page then lists four categories of symptoms: Physical, Emotional, Social, and Practical, each with a corresponding icon of a stylized human figure. Under each category, there is a list of specific symptoms or concerns.

What types of symptoms of cancer are tracked by e-IMPAQc?

e-IMPAQc can help you track and manage physical symptoms as well as emotional and social issues and practical concerns. Click the links below for more information about managing the symptoms that can be caused by cancer and cancer treatment.

Physical	Emotional	Social	Practical
Constipation Diarrhea Loss of appetite Mouth problems Nausea	Anxiety Body image Burden/worry Depression Distress	Communication Getting around Getting support Independence Isolation	Domestic chores Financial concerns Personal care Plan your affairs Talking to your healthcare



e-IMPAQc MUHC Screening Dashboard

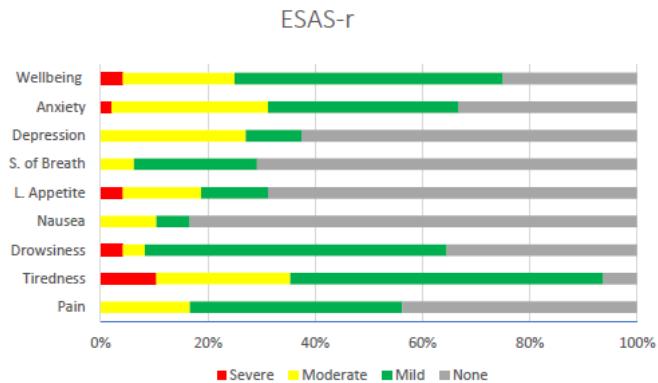
November 2020 – July 2021

▪ 21 unique patients screened

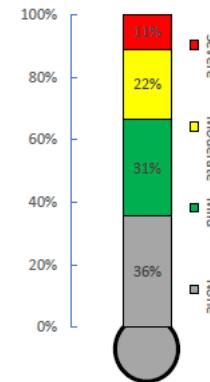
▪ 6 new patients screened since last period

▪ 48 total screenings

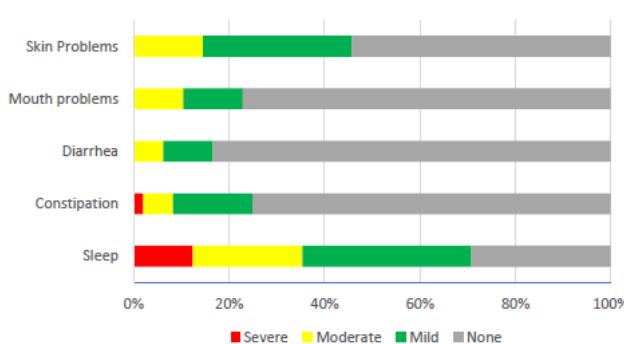
Severity of Symptom Burden



Distress Thermometer

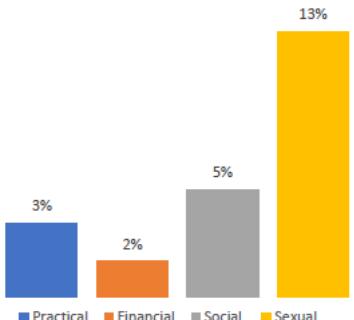


Additional ESAS Questions

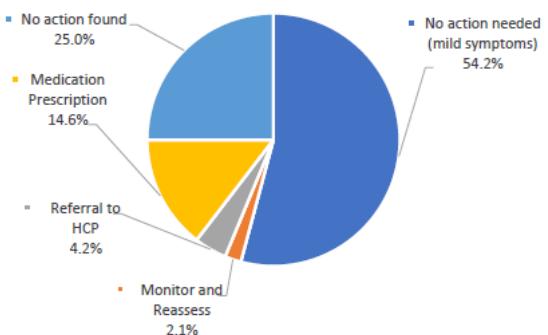


Prevalence of Symptoms

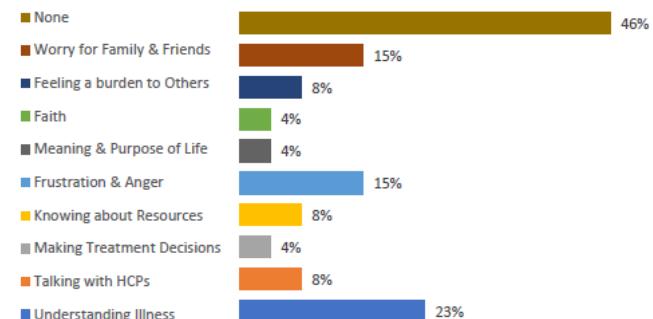
Prevalence of SDI Indicators



Follow-up Post Screening

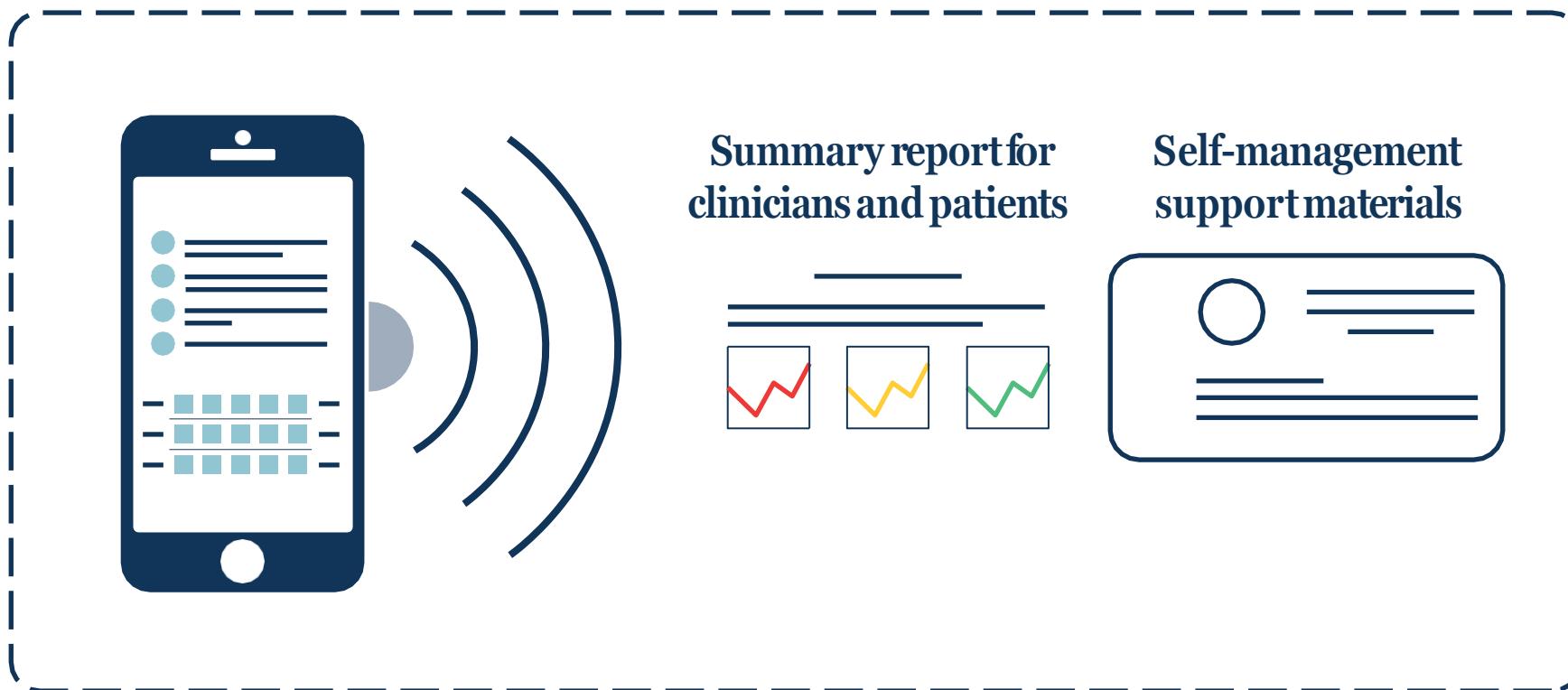


Prevalence of Selected CPC Symptoms





Digital platform selected by participating hospitals



e-IMPAQc Pilot Patient Feedback

Patients reported having had an easier time navigating their cancer care through **symptom tracking and educational materials.**

e-IMPAQc supports a more **transparent and smoother treatment delivery.**

e-IMPAQc Pilot Patient Feedback

Benefits to patients

reducing
feelings
of anxiety

offering
reassurance

[e-IMPAQc] is so much less stressful. Like I have everything ‘in the palm of my hand’

I think it was magnificent that I had this. I wouldn’t be able to go without it



e-IMPAQc Pilot Patient Feedback

Self-management Materials

responding to
the right
questions

providing
a plan of
action



*“It gave me a possibility of what to do,
like an action plan”*

*“It was just more like a reassurance that I
was OK, you know, that it was normal”*

e-IMPAQc Pilot Patient Feedback

Healthcare Professional use of patient screening results

facilitating conversations

optimizing appointment time

[the doctor] was fully versed on what I had reported in the questionnaire and I thought wow, this works really well”

“And [he] explained why, it said that there was a concern with one of the answers to my questions, which I thought you know how great that is.”



e-IMPAQc Pilot Patient Feedback

Patient Summary Reports

giving a sense
of ownership
over their care

normalizing
symptoms



*“Summary reports helped me to know
what is normal, which is abnormal”*

*“I liked seeing the visual, I liked having it in
my hand... I didn’t have to beg for paperwork
or my history or anything”*

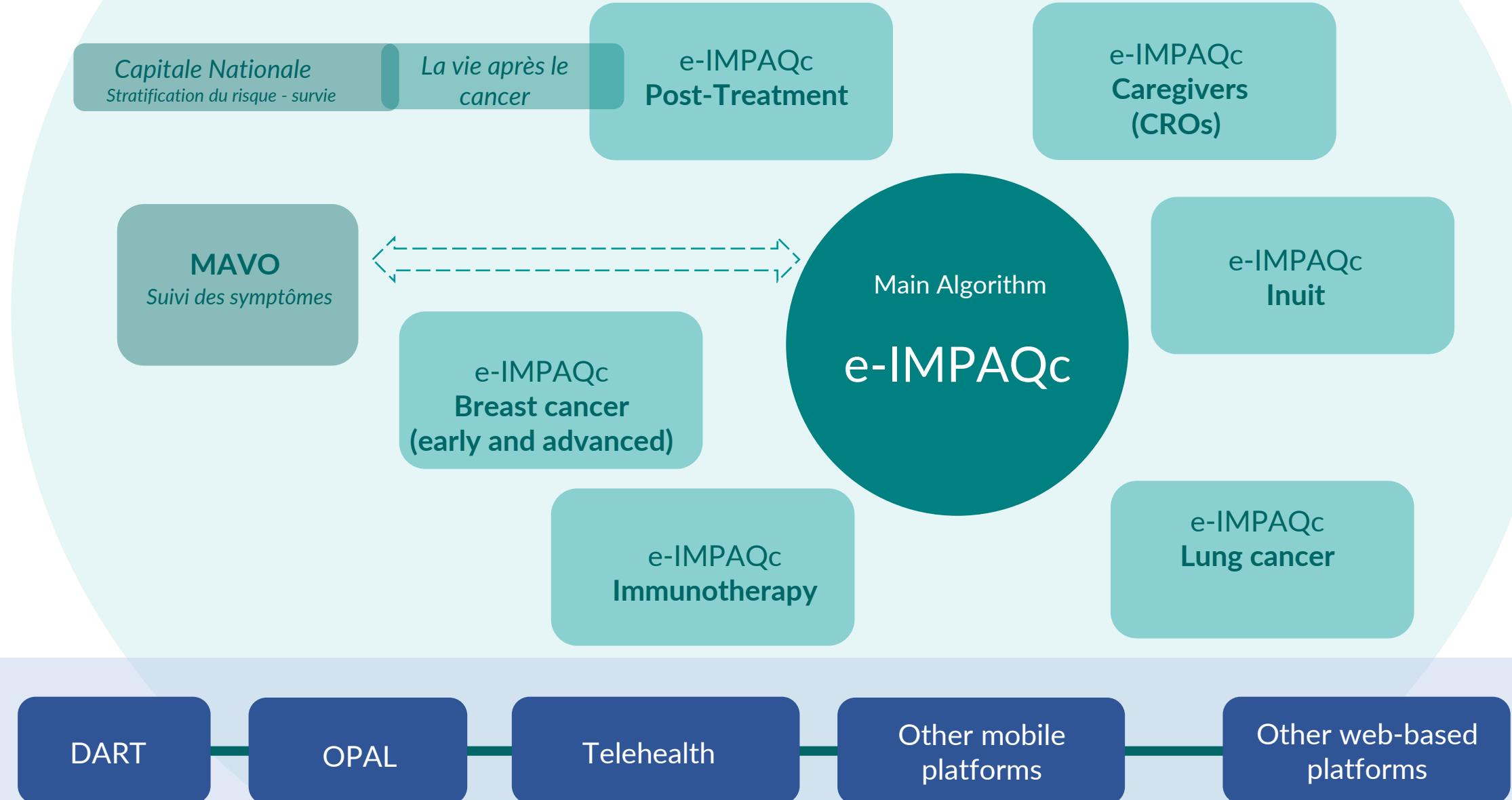
e-IMPAQc Pilot Patient Feedback

Suggested improvements were made by patients to:

- **simplify the process of registration**
- **additional resources that could be included in the materials offered**
- **app features that would improve the functionality of the application.**



e-IMPAQc algorithms and collaborations





Relevance & future outlook

Systematic collection of PROs places **patient-centered care** at the forefront of cancer care

The fluctuation of symptoms across the trajectory of care can be more easily identified with PROs

PRO screening reports potentially improve co-ordination of care

The use of PROs in cancer care can not only **improve symptom severity** and the process of care but also treatment adherence and health-related outcomes such as **quality of life**

CONTACT

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Symptom tracking & management to improve cancer care

e-IMPAQc helps patients and caregivers at cancer centres across Quebec track and manage their physical and emotional symptoms and practical challenges and communicate these to their healthcare team using mobile technology.

