Meeting Report

Fifth Canadian Cancer Treatment Hackathon

March 4, 2024

CANADA

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Executive Summary

The Fifth Canadian Cancer Treatment Hackathon convened to address systemic delays in Canada's healthcare system that impede timely access to new cancer treatments. Despite regulatory approvals, the path to patient reimbursement is lengthy and complex.

The primary goal of Hackathon #5 was to build on the insights from previous hackathons and further refine and expand upon the identified priorities to facilitate actionable change among critical stakeholder groups. The aim was to better understand each group's unique perspective in accelerating access to cancer medicines and driving innovation and transformative change in the landscape of drug access. This was particularly important for ensuring that once a drug was approved by Health Canada and recommended for reimbursement by either CADTH (pCODR) or INESSS, it became available to patients without unnecessary delays, thus bridging the gap between drug approval and patient access.

Participants were divided into four distinct groups based on their individual roles and perspectives, such as industry, clinicians, cancer researchers, patients, patient groups, strategic advisors, and academics.

Group #1: Industry Professionals

Participants in group #1 explored what industry professionals could do differently in order to speed up access to cancer medicines. They focused on enhancing collaboration between regulatory and reimbursement bodies and integrating actions that the pharmaceutical and biotechnology industries can undertake to accelerate the availability of new treatments. The discussions delved into strategies for streamlining joint submissions and aligning reviews between bodies.

Group #2: Clinicians and Cancer Researchers

Participants in group #2 examined how clinicians and cancer researchers could contribute to faster access to cancer medicines. They evaluated methods to improve the Health Technology Assessment (HTA) process, particularly for small patient populations, and discussed aligning the HTA process more closely with the specific needs of patients. The group emphasized the importance of incorporating clinical insights and research evidence to enhance decision-making processes in drug reviews and reimbursement.

Group #3: Patient Leaders and Canadians with Lived Experience

Participants in group #3 explored what patient leaders and Canadians with lived experience could do differently in order to speed access to cancer medicines. They explored the perspectives of patient leaders and individuals with firsthand experience of cancer treatment to identify ways to influence the negotiation and funding processes for new treatments. Their discussions centered on amplifying the patient voice in decision-making bodies like the pan-Canadian Pharmaceutical Alliance (pCPA).

Group #4: Think Tanks, Strategic Advisors, and Academics

Participants in group #4, comprised of experts in policy, strategic consulting, and academia, examined how they could influence healthcare strategies to align HTA outcomes with funding decisions. Their discussions emphasized the need to increase transparency and accountability in the drug review process and highlighted the importance of integrating real-world evidence into evaluations.

Key insights from the Groups:

Group #1: Industry Initiatives

- Enhance collaboration between CADTH, INESSS, and Health Canada.
- Adapt regulatory frameworks for early access and managed entry agreements with the upcoming Canadian Drug Agency and pharmacare changes.
- Improve payer integration to ensure consistent reimbursement for cancer medicines.
- Learn from international models such as the UK's Innovative Medicines Fund.
- Advocate for changes and actively participate in expediting access to cancer medicines.
- Expand the use of virtual clinical trials and innovative partnerships.
- Engage in multi-country consultations to align clinical trial standards.
- Advocate for early HTA submissions and a consultative pre-submission process.
- Take on a risk-taking mindset and encourage innovation within the industry.

Group #2: Clinicians and Researchers' Role

- Reassess HTA review criteria, especially for small patient populations.
- Explore the adoption of "innocent before proven guilty" in medicine adoption.
- Optimize HTA to incorporate value-based assessments and prioritize medicines with the highest clinical benefit.
- Align HTA evaluations with patient needs and preferences.

- Address the need for reforms and policy changes to optimize the drug review and reimbursement processes.

Group #3: Patient Leaders and Lived Experience

- Streamline negotiation and funding processes for cancer medicines.
- Patient groups to inform with a common voice at the pCPA level.
- Engage provinces earlier in the review process for commitments to timelines.
- Involve patient leaders in HTA processes and inform and advocate for shared risk agreements.
- Address patient involvement challenges and enhance patient engagement mechanisms.
- Break down silos and improve communication across healthcare levels.

Group #4: Think Tanks, Advisors, and Academics

- Ensure funding decisions aligned with HTA outcomes are done in a timely manner.
- Shift public healthcare system focus toward patient outcomes over financial concerns.
- Integrate Real-World Evidence (RWE) into drug review and reimbursement processes.
- Enhance transparency and accountability, especially in pricing and decision-making.
- Implement innovative agreement models and managed entry programs for early access to medicines.
- Advance “patient value” information to inform policy changes that expedite patient access to cancer medicines.
- Develop collaborative strategies at all levels with government agencies, industry, and patient groups.

Action items identified through post-meeting survey:

Survey data from the post-meeting highlighting key actions that stakeholders believe would improve the timeline for patient access to cancer treatments (Note: Participants had the opportunity to select multiple options, hence the percentages will not add up to 100%).

- Develop White Paper Using Hackathon Outcomes (70%): A strong agreement on leveraging Hackathon outcomes for impactful policy recommendations.
- Develop Policy Briefs (50%): A focus on creating targeted briefs to directly influence healthcare policies and decisions.
- Produce Manuscripts for Publication (50%): An initiative to share research findings from the Hackathon through scholarly publications.

- Conduct Surveys and Interviews (40%): Engaging with a range of stakeholders, such as patients and healthcare providers, to understand the barriers and opportunities in cancer treatment access.
- Form a Task Force/Coalition (60%): Creating a dedicated group to address and advocate for the improvement of cancer drug access.
- Launch a Public Campaign (40%): Increasing awareness of the challenges and opportunities related to drug access.
- Promote Patient Engagement (30%): Encouraging patient participation in healthcare decision-making processes.
- Incorporate Real-World Evidence in Reviews (20%): Advocating for the inclusion of RWE to enhance HTA reviews and outcomes.
- Patient Awareness and Outreach Initiatives (30%): Focusing on increasing patient involvement and awareness through targeted initiatives.
- Strengthen International Partnerships (20%): Emphasizing the need for global collaborations to fast-track access to cancer treatments.
- Capacity Building and Training (20%): Developing resources and educational tools to enhance the healthcare system's efficiency and responsiveness to patient needs.

These points reflect a strategic consensus on the need for engagement in educational initiatives, transparent policy development, and patient-centric reforms to streamline cancer treatment processes and integrate comprehensive evidence into healthcare evaluations.

Conclusion

The Fifth Hackathon not only underscored the commitment across sectors to expedite cancer treatment access but also facilitated a collaborative environment where key stakeholders could work towards shared objectives. The event fostered cooperative strategies and action recommendations tailored for each group, highlighting the importance of patient involvement and international partnerships. Together, participants shaped a healthcare system poised for rapid delivery of cancer care. The actionable items identified lay the foundation for policy advancements and showcase a collective resolve to transform drug access in Canada, demonstrating a unified approach to tackling the complexities of healthcare.

1.0 Introduction

In the Canadian healthcare system, access to new cancer treatments is marked by considerable delays. Although drugs may receive approval across major regulatory bodies like the EU, the US, and Canada, the path to reimbursement in Canada is fraught with challenges. Health Canada's approval process averages 248 days post-global approval. Following this, Canadians encounter a further 199-day wait before a new drug is launched, often only accessible through out-of-pocket payment or private insurance. The most significant delay comes thereafter, with an average of 559 days (approximately 1.5 years) before public reimbursement is secured, granting broader access to these treatments. This bottleneck in drug availability is further compounded by the intricate steps following Health Canada's review, which include HTA for clinical and economic evaluation and negotiations by the pan-Canadian Pharmaceutical Alliance (pCPA). Each phase, from pricing to listing decisions, bears its own set of delays and red tape, leading to variable timelines for patient access to new therapies.

The Canadian Cancer Treatment Hackathon marked a pivotal turn in approach and emphasis, particularly in the field of cancer treatment. More than just a platform for dialogue, this event became a catalyst for transformative ideas aimed at redefining the role of the cancer community in enhancing system efficiencies and advocating for patient needs. Confronting the ongoing challenges of securing timely access to new and effective cancer treatments, the Hackathon moved beyond traditional discussions. Instead of solely addressing systemic demands, it inspired participants to introspect and consider how they, as vital components of the cancer care continuum, could initiate meaningful change. Barry D. Stein president of Colorectal Cancer Canada (“CCC”), underscored the urgency: "As cancer patients, we need access to new innovations that are safe and effective as early as possible to improve patient outcomes." He advocated for a holistic approach—from the initial concept of clinical trials to the moment a patient receives medication—emphasizing the necessity to streamline the extensive two-year process spanning regulatory review to patient access.

This innovative approach drew inspiration from successful strategies in other health sectors, such as the rare disease community in Canada, which has driven significant policy reforms and improved patient outcomes. Mr. Stein also shared insights from his recent talk at the Accelerating Clinical Trials (ACT) meeting in Vancouver, highlighting the importance of considering both drug development and the accessibility of clinical trials, thus enriching the dialogue focused on enhancing access frameworks. Participants, including medical professionals, researchers, patients, policy

advisors, and industry representatives, were organized into multi-stakeholder groups. Each group was charged with reevaluating their roles and responsibilities to identify actionable changes that could accelerate the transition from drug discovery to patient access. Barry Stein's dedication to producing the recommendations reached by this collaboration to Canadian health agencies was evident, underscoring CCC's commitment to "time to patient."

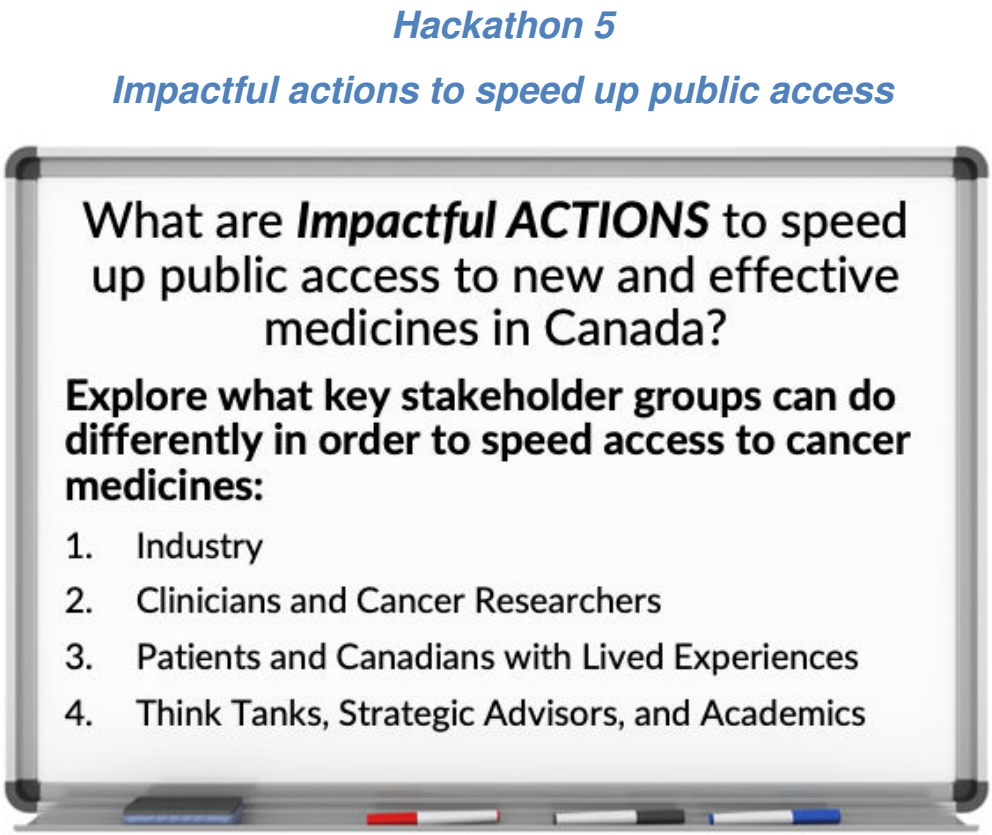
Distinguished by its emphasis on active participation and real outcomes, this Hackathon reflected a collective determination to overcome bureaucratic hurdles and enhance the quality of patient care through timely access to cancer drugs in Canada. The primary goal of Hackathon #5 was to revisit, improve, and expand upon the key priorities previously identified in past hackathons, aiming to foster actionable change among crucial stakeholder groups to enhance access to new and effective cancer drugs in Canada. This endeavor focused on dissecting and understanding the unique roles that key stakeholder groups—industry professionals, clinicians and cancer researchers, patients and Canadians with lived experience, think tanks, strategic advisors, and academics—could play in accelerating the availability of cancer medicines. Hackathon #5 was a shift away from pointing to others – including health systems – to take action and change. Instead, a mirror was held up to each group with a key question: "What can you and your peers and colleagues do to speed access to new cancer treatments?"

Insights from Past Hackathons:

- **Hackathon #1** prompted novel ideation within existing Canadian systems, seeking time-saving opportunities at each process step, with participants voting emphatically for global solutions and expanded collaborations like Project Orbis to cut down on regulatory reviews.
- **Hackathon #2** drew from best practices of international HTA and regulatory agencies, acknowledging the success factors from various jurisdictions, such as England's early access drug funds and Germany's transparent medicine adoption practices.
- **Hackathon #3** envisioned a reimagined drug review and reimbursement process from the perspective of a 'Super Minister,' concluding that comprehensive reforms were vital for optimizing current procedures and ensuring equitable access.
- **Hackathon #4** focused on prioritizing high-impact ideas and assessing international collaborations and practices, advocating for the integration of global best practices into the Canadian context.
- **Hackathon #5** shifted the focus inward, asking participants to consider what changes they can personally enact within the cancer community to improve system efficiency.

Hackathon # 5 began with a review of new concepts and initiatives that have been implemented, including Time-Limited Recommendations (TLR), the pCPA Temporary Access Process, and engagement with the Formulary Management Expert Committee (FMEC). These changes highlight CADTH's and pCPA's openness to pilot new projects that could provide better patient/patient group input and earlier access to treatments. There was also a discussion on the potential impact of international initiatives such as EUnetHTA (www.eunethta.eu) and how international cooperation might evolve, including the possibility of reciprocal arrangements with other countries to share decisions about clinical benefits or patient perspectives. As the discussions move forward, it was agreed that there is a strong desire to continue this momentum and further explore innovative ideas and collaborations that could lead to improving patient outcomes in Canada.

Figure 1. Hackathon 5 Mission Statement



Participants were organized into four distinct groups, each tasked with exploring specific questions from the perspective of these stakeholder groups. The objective was to identify impactful actions that could drive innovation and transformative change in the landscape of drug access. These actions were then discussed in a plenary session, highlighting their potential to significantly improve how new and effective cancer treatments are accessed across Canada.

Breakout Group Discussions

Group #1: Industry Initiatives:

Group #1 focused on the actions the industry could undertake to accelerate access to cancer medications. The group examined the current state of collaboration between regulatory and reimbursement bodies within Canada, notably between CADTH, INESSS, and Health Canada, exploring ways to enhance joint submissions and aligned reviews. Participants discussed the regulatory framework necessary for early access programs and managed entry agreements and considered the implications of the new Canadian Drug Agency and pharmacare initiatives. Discussions also centered on improving payer integration for consistent reimbursement processes and applying lessons from international models like the UK's Innovative Medicines Fund to Canada's drug access system.

Group #2: Clinicians and Researchers' Role:

Key questions considered by this group were to better understand how clinicians and cancer researchers could contribute to accelerating access to cancer treatments. The group deliberated on criteria for HTA reviews, especially for small patient populations, and the potential adoption of the "innocent before proven guilty" principle in medicine adoption. They also explored optimizing the HTA process to better incorporate value-based assessments, focusing on prioritizing medicines with the highest clinical benefit and aligning HTA evaluations with patient needs. Lastly, they discussed the necessary reforms and policy changes to optimize Canada's drug review and reimbursement processes.

Group #3: Patient Leaders and Lived Experience:

Group #3's discussion aimed at identifying ways patient group leaders, patients, and caregivers with lived experience could streamline the negotiation and funding process for cancer medicines. The group tackled potential obstacles to collaborative efforts and strategies for overcoming them, emphasizing the importance of sharing data and prioritizing patient needs. They debated the practicality, and the need to streamline HTA clinical assessment, so that there is only one recommendation for the entire country, focusing on equity, and transparency as key elements.

Group #4: Think Tanks, Advisors, and Academics

Group #4 delved into strategies for ensuring funding recommendations align with HTA outcomes in a timely manner. They examined the role of real-world evidence in the review and

reimbursement evaluations and discussed measures to enhance transparency and accountability, particularly in pricing and decision-making criteria. Innovative agreement models and managed entry programs were explored as avenues to balance timely access with the need for robust evidence. Finally, the group addressed how impactful ideas, such as the UK's Innovative Medicines Fund, could be translated into policy changes and system improvements in Canada.

2.0 Key Discussions From the Four Groups

Group 1: Industry's Role in Accelerating Access to Cancer Medicines

Collaboration Between Regulatory and Reimbursement Bodies

Group 1 explored how the industry could facilitate faster access to cancer medicines by enhancing collaboration between regulatory and reimbursement bodies. A significant focus was on eliminating redundant reviews and expediting both approval and funding processes. The group discussed the existing collaborations within Canada, such as those between CADTH and INESSS for joint submissions and aligned reviews between CADTH and Health Canada. These collaborations aim to streamline processes and reduce approval times for new cancer treatments. The discussion also included a need for enhanced communication between all stakeholders before and during the HTA review to ensure better alignment with HTA requirements.

Regulatory Frameworks for Early Access and Managed Entry Agreements

The discussion also delved into frameworks necessary to support early access programs and managed entry agreements. Considering the impending changes with the new Canadian Drug Agency (CDA) and potential pharmacare adjustments, the group discussed how these frameworks could be adapted to support quicker patient access to essential medicines. Suggestions were made to encourage earlier submissions to HTA and improve the pre-submission meeting process to be more consultative.

Improving Payer Integration

Payer integration was identified as a crucial area needing enhancement to ensure consistency and acceleration of the reimbursement process for cancer medicines across Canada. Strategies to improve alignment between different payer systems were discussed to reduce variability, increase equity, and ensure more predictable and streamlined funding processes for new cancer drugs. Specific strategies include addressing the unpredictability in the final stages of funding decisions and exploring possibilities for incentivizing timely submissions by the industry.

Learning from International Best Practices

Drawing on international examples, such as the UK's Innovative Medicines Fund, the group discussed how Canada could adopt similar initiatives to improve the efficiency and effectiveness of its drug access system. The UK model of more dialogue between NICE, NHS, clinicians, and patients was highlighted as a potential model to facilitate a quicker transition from approval to funding although it was stressed that target timelines for the review need to be respected especially if we are to achieve "Target Zero".

Advocating for Change and Implementing Strategies

An important part of the discussion focused on how the industry could "embody the change" sought in the healthcare system. This includes advocating more effectively for regulatory and procedural reforms and actively participating in the implementation of strategies that could expedite access to cancer medicines. Early scientific advice and proactive engagement with system players in the process were suggested to help prepare payers for upcoming treatments and budget impacts.

Virtual Clinical Trials and Data Collection

The potential for expanding decentralized clinical trials and more innovative partnerships was discussed as a way to broaden patient access across Canada. The group talked about the possible role of utilizing information collected through patient support programs in collecting data that could inform reimbursement decisions and integrating Phase IV studies into clinical trial plans. They also discussed the need for industry to review how they operate in Canada and the possibility of more decentralized trials paired with satellite sites provincially and across Canada

Risk Mitigation and Multi-Country Consultations

The conversation also covered how the industry could help mitigate risk by engaging in multi-country consultations to align standards of care and ensure that clinical trials are designed to meet regulatory and HTA requirements across jurisdictions. The need for the industry to take on measured, reasonable risks was discussed, with suggestions for the industry to adopt a more risk-taking and innovative mindset.

HTA Submissions and Stakeholder Collaboration

The group explored how collaboration with all stakeholders could be improved to ensure that early submissions lead to quicker decision-making processes. The possibility of reducing duplication in submissions to Health Canada and HTA bodies was considered, seeking ways for HTA to leverage

part of the clinical assessment already provided to Health Canada.

Feedback Mechanisms and Innovative Practices

Finally, the discussion touched on the need for more consultative feedback mechanisms during the submission process and how the industry could take on a more significant role in risk-taking and innovation. There was a call for more feedback from bodies like CADTH to manage expectations, particularly for smaller or rare disease companies that might be new to the Canadian market.

Overall, Group 1 provided a comprehensive analysis of the actions the industry can take to speed up access to cancer medicines, emphasizing collaboration, innovation, and proactive engagement as key drivers of change. The discussion highlighted the potential for adopting international best practices and enhancing payer integration to streamline the process from drug development to patient access in Canada.

Group 2: Enhancing Clinician and Researcher Contributions to Accelerate Cancer Medicine Access

Revisiting HTA Reviews for Small Patient Populations

Group 2 focused on how clinicians and cancer researchers can influence the Health Technology Assessment (HTA) process, particularly for small patient populations. The group discussed the inadequacy of certain HTA criteria, such as ICER/QALY thresholds, which do not fully capture patient experiences and the qualitative impact of new treatments. There was a strong emphasis on integrating patient perspectives more comprehensively into the HTA process to address equity issues and accurately assess the unmet needs, budget impacts, and clinical benefits of new treatments.

Valuing Life and Societal Impact

The discussion extended into a philosophical debate on how life is valued within healthcare, contrasting it with other sectors like transportation where different valuation models are applied. Participants noted that current models are outdated, often based on data from the 1950s, and do not reflect the true cost or societal impact of treatments. This led to suggestions for a more holistic valuation of drugs that goes beyond direct healthcare costs to include broader societal benefits.

Optimizing HTA Processes

The group proposed several ways to optimize HTA processes, including the adoption of a more formal approach to capturing patient preferences and societal impacts. They discussed the

need for early engagement in scientific advice and standardizing cost utilization reviews. There was also a call for closer international collaboration to align on the pricing and assessment of new medicines. Specific discussions highlighted the limitations CADTH faces in understanding the true cost of medicines, stressing the importance of standardizing utilization cost reviews and eliminating price quality metrics based on outdated data.

Incorporating Real-World Evidence (RWE)

Clinicians and researchers discussed the challenges of generating RWE, noting the limitations in capacity and time. They suggested using automated processes, possibly enhanced by AI, to facilitate data collection. This would help address disparities in opinions among clinicians about the evidence required for treatment approval, especially concerning data from smaller or less traditional studies.

Actionable Strategies for Clinicians and Researchers

The key actionable strategy identified was the development of a guideline or a framework for collecting and evaluating data outside of conventional clinical trials. This includes fostering a joint international dataset and consensus on data collection and evaluation, which could standardize evidence requirements across different jurisdictions. Additionally, the group advocated for enhancing collaboration and knowledge-sharing to accelerate the translation of research findings into clinical practice, emphasizing the use of RWE and innovative technologies to facilitate faster approval of cancer medicines.

Education and Awareness of HTA Processes

Participants highlighted the need for greater clinician awareness of HTA processes to ensure that their insights contribute more effectively to decision-making. This could involve educational initiatives to help clinicians understand and engage with HTA evaluations, particularly as these processes become integral to innovative payment models and outcome-based agreements.

Leveraging Technology and Data

The potential of AI and other technologies to aggregate and analyze health data was discussed as a way to enhance the decision-making process. The utility of AI in merging data from electronic medical records to derive meaningful insights that could support more nuanced assessments of treatment effects was emphasized.

Group 2's discussion underscored the critical role of clinicians and researchers in shaping

the frameworks and methodologies used to evaluate new cancer treatments. By advocating for a more inclusive and comprehensive approach to HTA, emphasizing the importance of RWE, and leveraging technological advancements, clinicians and researchers can significantly influence the speed and effectiveness of cancer medicine access. The group called for ongoing education and a shift in perspective to ensure that all stakeholders understand and contribute to a more equitable and effective healthcare system.

Group 3: Empowering Patient Leaders and Canadians with Lived Experience

Streamlining Negotiation and Funding Processes

Group 3 focused on the roles that patient leaders and Canadians with lived experience can play in streamlining the negotiation and funding processes for cancer medicines. The group examined how to optimize efficiency and improve patient access by integrating patient perspectives directly into these processes. A significant emphasis was placed on the potential for patient groups to unite diverse voices and advocate for streamlined procedures at the pCPA level, where there is currently a significant gap in patient involvement.

Global Best Practices and Shared Risk Agreements

Discussions highlighted global best practices, such as the UK's system which incorporates proportionate approaches and sandboxing for testing new methods. The group also discussed the potential for implementing shared risk agreements and engaging provinces earlier in the review process to commit to timelines, enhancing the overall efficiency of access to new treatments.

Patient Leadership in Health Technology Assessment (HTA)

The group delved into strategies for better involving patient leaders in the HTA process. This includes overcoming challenges such as competition among patient groups and the lack of understanding within HTA bodies regarding how patients' perspectives could be better incorporated. Suggestions were made with respect to the formulary management expert committee (FMEC) to align on the quality of content input from patient groups, and how those lessons learned could also help enhance the pCPA process by introducing a more defined protocol for patient involvement.

Incorporating Real-World Evidence (RWE)

The importance of RWE was discussed, focusing on its role in broadening the elements considered in treatment evaluations, beyond traditional clinical outcomes. The group advocated for the integration of broader elements of value to be included and suggested frameworks on equity and relevance to ensure that funding decisions are aligned with HTA outcomes in a timely manner.

Patient Involvement Challenges and Opportunities

The group acknowledged several challenges that could impede effective collaboration, including data-sharing difficulties and the need for more transparent patient engagement mechanisms. It was noted that while CADTH is relatively advanced in-patient engagement, INESSS and other bodies lag behind. Suggestions were made to enhance patient involvement in critical points of the payer process, potentially through existing Patient Support Programs (PSPs).

Advocacy and Engagement

Patients and patient groups were recognized as crucial in driving changes within the system. The group discussed the need for patient leaders to be involved early in clinical trials and throughout the regulatory and reimbursement processes to ensure that patient needs are prioritized. The discussion also covered the importance of breaking down silos between different stakeholders and enhancing communication across all levels of the healthcare system.

Specific Actions for Patient Leaders

To embody the change they advocate for, patient leaders were encouraged to:

- Unify various groups to speak with a common voice, enhancing the impact of their advocacy.
- Focus on clear, impactful actions that can directly influence policy and procedural reforms, especially regarding how patient inputs are integrated into decision-making processes.
- Leverage international collaborations to align patient advocacy efforts across borders, enhancing the efficiency of drug approvals and access.

Group 3 highlighted the transformative potential of patient-led advocacy in reshaping the landscape of cancer treatment access in Canada. By advocating for greater inclusion in decision-making processes and emphasizing the value of patient experiences in evaluating treatment outcomes, patient leaders can play a pivotal role in enhancing timely access to necessary cancer medicines. The discussions underscored the need for systemic changes that facilitate deeper and more meaningful patient involvement at all levels of the healthcare system.

Group 4: Role of Think Tanks, Strategic Advisors, and Academics

Enhancing Decision Alignment with HTA Outcomes

Group 4 focused on strategies that think tanks, strategic advisors, and academics can employ to ensure funding decisions are timely and align with HTA outcomes. The discussion emphasized

the societal benefits of cancer medicines, suggesting a shift in public sector focus towards patient outcomes rather than just financial exposure. The group discussed the implementation of tools like dashboards to track and publicize data on timelines and decision-making processes, which could help identify and resolve inefficiencies.

Cultural and Systemic Shifts in Healthcare

Participants highlighted the need for a cultural shift within the public healthcare system to prioritize services and benefits to patients over financial constraints. They proposed evaluating healthcare from a holistic perspective to find efficiencies and address overlapping mandates. There was a strong call to foster an unbiased, collaborative environment where patient perspectives are valued equally with those from the industry, reducing the existing mistrust in the system.

Real-World Evidence (RWE) and Patient Registries

The group explored how real-world evidence (RWE) could be better integrated into the drug review and reimbursement processes. They discussed the potential of patient registries and observational data, despite the challenges posed by ethical approvals and informed consent. Enhancing patient registries to streamline data collection and exploring the use of administrative databases to gather RWE were identified as crucial steps. The group noted the need for establishing credible standards for evidence that could be recognized across different provinces.

Transparency and Accountability in Drug Review

Concerns about transparency and accountability in the drug review and reimbursement process were raised, with a focus on improving the clarity around pricing and decision criteria. The group discussed building a culture of trust through open conversations about decision-making processes, particularly around cost-effectiveness thresholds and the public visibility of these decisions.

Innovative Agreement Models and Managed Access Programs

The potential for innovative agreement models and managed access programs to facilitate early access to promising cancer medicines was another major topic. Strategies discussed included the creation of a national organization or fund that considers patient needs and outcomes, and the alignment of provincial and territorial bodies to optimize drug approval processes.

Strategies for Impactful Advocacy

Group 4 discussed the role of think tanks and academics in advocating for policy changes

that expedite patient access to cancer medicines. They emphasized leveraging their research expertise to influence policy and develop innovative strategies that improve the availability and affordability of cancer medicines. Specific actions suggested included:

- Using election cycles to focus on health policy platforms that promote access to innovative treatments.
- Pushing for societal-level discussions about the burden of disease and Canada's reputation as an innovative healthcare country.
- Establishing a dashboard to advocate for and track progress on these issues.
- Sharing patient stories and journeys to highlight the real-life impacts of current policies.

Collaborative Efforts for System Improvements

Finally, the group discussed how collaboration among government agencies, industry, patient groups, and clinicians could be improved to develop strategies for enhancing drug access. They highlighted the need for collective efforts to break down silos and ensure that all stakeholders, including patients, are involved in the conversation.

Throughout the discussions, Group 4 underscored the importance of integrating broader societal perspectives, enhancing transparency, and fostering collaboration among all stakeholders to accelerate access to cancer medicines. By advocating for systemic changes and leveraging their unique position, think tanks, strategic advisors, and academics can play a pivotal role in transforming Canada's drug landscape to better serve patients and society at large.

3.0 Data From the Post-Meeting Survey

Post-meeting, a survey was conducted to gather responses from various stakeholders focusing on their perspectives on access to cancer medicines, the effectiveness of the healthcare processes, and the role of different stakeholders in improving access to treatment. The aim of the survey was to identify how the recommendations generated throughout the hackathons could translate to advocacy and tangible change to improve timely access to effective treatments and improve patient outcomes. With responses from 10 individuals, the survey covered a broad range of topics from stakeholder collaboration to patient involvement and the use of real-world evidence (RWE). Data from the survey provides insights into the preferred actions to improve the time to patient access for cancer treatments. The responses indicated a prioritization for the development of white papers, policy briefs, and manuscripts, along with the establishment of task forces and public campaigns (see Figure 2).

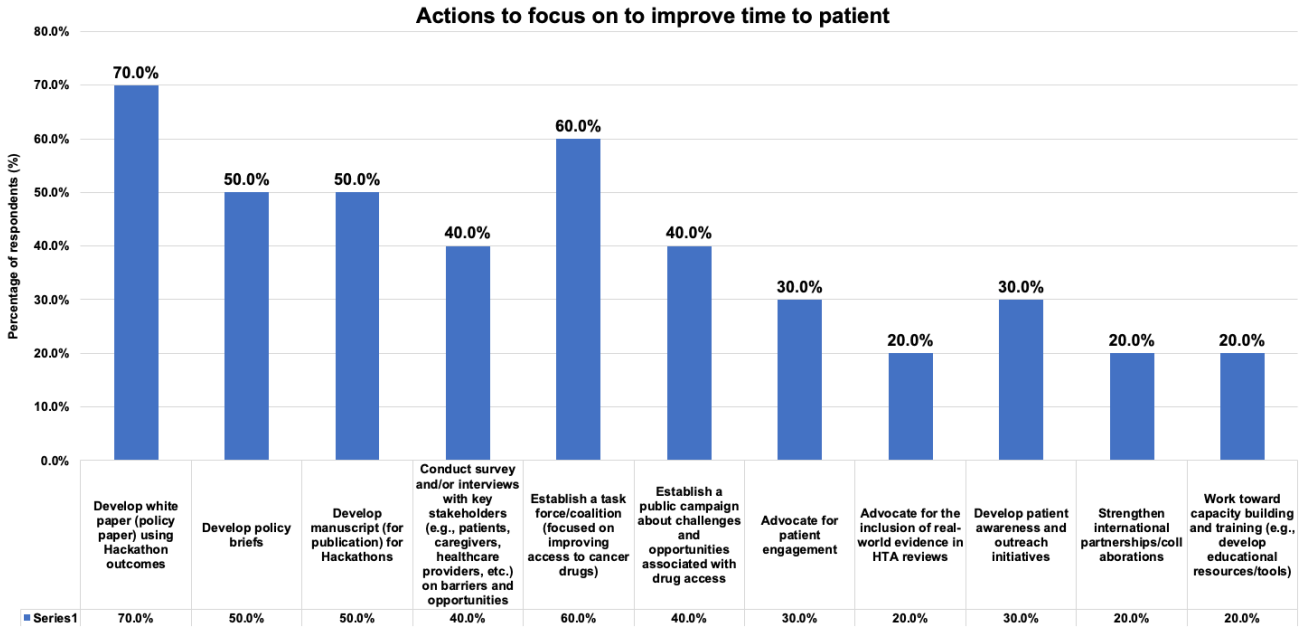
Policy Development and Dissemination:

- **Develop White Paper (Policy Paper) Using Hackathon Outcomes (70%):** There is a strong consensus on utilizing Hackathon outcomes to inform policy development. This approach aims to solidify collective learning into actionable policy recommendations.
- **Develop Policy Briefs (50%):** Crafting concise and targeted policy briefs based on survey outcomes is seen as a crucial step in influencing healthcare policy and decision-making.

Research and Analysis:

- **Develop Manuscript (for publication) for Hackathons (50%):** Producing peer-reviewed publications to disseminate research findings and insights is a priority, as half of the respondents support this action.
- **Stakeholder Engagement and Surveys (40%):** Engaging directly with patients, caregivers, and healthcare providers through surveys and interviews will provide in-depth insights into the barriers and opportunities within the current healthcare system.

Figure 2. Data from the Survey Highlighting Prioritized Actions to Improve Time to Patient



Strategic Alliances and Advocacy:

- **Establish a Task Force/Coalition Focused on Improving Access to Cancer Drugs**

(60%): Forming a dedicated group to tackle access barriers is a critical strategic action supported by the majority of the respondents.

- **Establish a Public Campaign About Challenges and Opportunities Associated with Drug Access (40%):** Increasing public awareness through campaigns is seen as an important step to mobilize support for access improvements.
- **Advocate for Patient Engagement (30%):** Actively promoting the involvement of patients in healthcare decision-making processes is a significant action item for respondents.

Inclusion of Real-World Evidence and Awareness Initiatives:

- **Advocate for the Inclusion of Real-World Evidence in HTA Reviews (20%):** There is a call for integrating RWE into HTA reviews to better reflect patient experiences and outcomes.
- **Develop Patient Awareness and Outreach Initiatives (30%):** Initiatives aimed at increasing patient awareness and involvement are also highlighted by respondents.

Building International Collaborations and Capacity:

- **Strengthen International Partnerships/Collaborations (20%):** There is an acknowledgment of the importance of international collaborations to accelerate access to cancer treatments.
- **Work Toward Capacity Building and Training (20%):** Fostering capacity building and training, which includes developing educational resources and tools, is identified as a fundamental action for enhancing the healthcare system's ability to deliver timely patient access to cancer treatments.

Implications and Strategic Recommendations

The survey results not only reflect the specific actions favored by respondents but also underscore a broader strategic focus on education, policy development, and patient-centric initiatives. This aligns with the collective goal of streamlining processes, enhancing stakeholder engagement, and incorporating comprehensive evidence into healthcare evaluations. The actions prioritize a shift towards an integrative approach that combines research, policy advocacy, and stakeholder collaboration to expedite access to cancer drugs and bolster systemic efficiency.

The survey data, corroborated by the visual representation in the attached graph, provides a clear direction on the preferred strategic actions for improving time to patient access. These insights form the foundation for developing robust and informed initiatives to tackle the complexities of cancer treatment access, shaping a more responsive and patient-focused drug access landscape.

4.0 Conclusion:

The Fifth Canadian Cancer Treatment Hackathon marked a critical meeting point for those deeply invested in the Canadian healthcare system, uniting them in a common cause: to remove the barriers that slow down access to cancer medicines to patients in need. The dedication and hard work of the participants in the previous events focused sharply on creating practical steps to transform how patients access drugs.

Throughout the discussions, key stakeholders from different sectors presented their views and identified clear priorities for action. These included writing impactful policy papers, engaging with stakeholders through research and interviews, and establishing dedicated groups to champion the cause for faster drug access.

The follow-up survey echoed the need for education and collaboration. There was a consensus on the urgency of informing the public about the access challenges and the importance of involving patients in healthcare decisions. The idea of drawing from the successes of international healthcare models, such as the UK's approach to drug funding, resonated with many, revealing a collective eagerness to learn from global experiences. Moreover, the discussions emphasized the need to ensure that patient experiences and outcomes are at the forefront of the HTA and price negotiation processes. There was a strong call for enhancing collaborations not just within Canada but across international borders, all with the aim of expediting the arrival of new cancer treatments.

In essence, this hackathon distilled a series of actionable items, united by the goal of bringing effective cancer treatments to Canadian patients faster. As the healthcare landscape continues to evolve, these recommendations serve as a blueprint for advancing strategies and policies, showcasing a unified dedication to hastening the public's access to vital medicines. The discussions have laid the groundwork for ongoing dialogue and have paved the path for impactful changes in how cancer drugs are accessed and reimbursed in Canada.

Appendix – Fifth Hackathon Agenda

Time	Agenda item	Lead
10:05 – 10:15am	Opening remarks	Barry Stein
10:15 – 10:45am	Opening remarks	
	• Review agenda and highlight purpose and intended outcome • Roundtable introductions • Review outcomes from previous Hackathons	Bill Dempster
10:40am – 11:00am	- Presentation of Key Hackathon Results	Barry Stein and Patil Mksyartinian
11:00 – 11:10am	Review format and breakout group assignments	Bill Dempster
11:10 – 11:20am	BREAK	All
11:20 – 12:10pm	Breakout groups	All
12:10 – 12:50pm	Presentations to the plenary (10 mins. per group)	All
12:50 – 1:00pm	Closing remarks and next steps	Barry Stein