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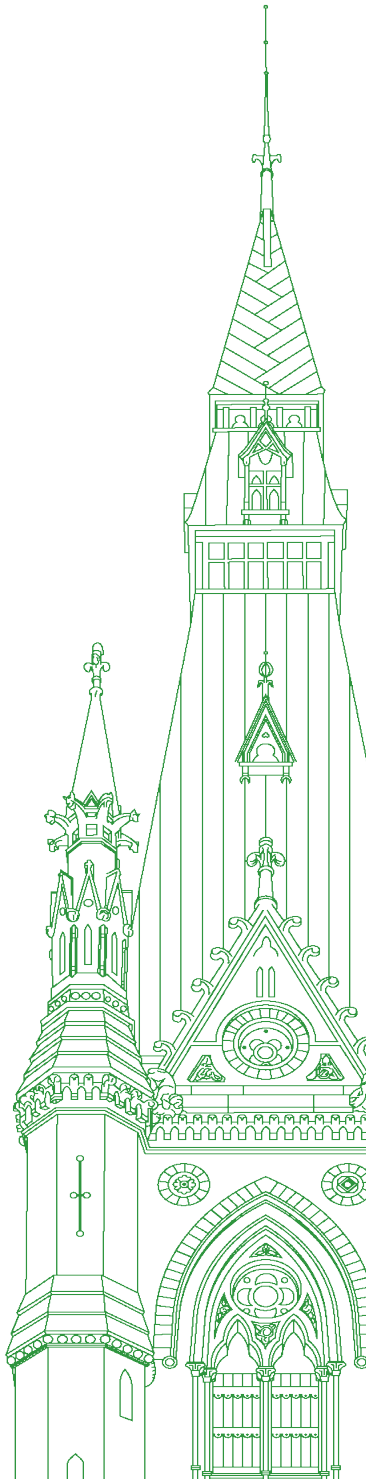

Chair: Salma Zahid

Standing Committee on Science and Research

Monday, October 20, 2025

● (1100)

[*English*]

The Chair (Salma Zahid (Scarborough Centre—Don Valley East, Lib.)): Good morning, everybody. I call this meeting to order. Welcome to meeting nine of the Standing Committee on Science and Research.

Pursuant to the motion of the House on June 18, 2025, the committee is meeting to study antimicrobial resistance.

Today's meeting is taking place in a hybrid format, pursuant to the Standing Orders. Members are attending in person in the room and remotely by using the Zoom application.

Before we continue, I would ask all in-person participants to consult the guidelines written on the cards on the table. These measures are in place to help prevent audio and feedback incidents and to protect the health and safety of all participants, including the interpreters. You will also notice a QR code on the card, which links to a short awareness video.

I would like to make a few comments for the benefit of the witnesses and members. Please wait until I recognize you by name before speaking. For those participating by video conference, click on the microphone icon to activate your mic, and please mute yourself when you are not speaking. For interpretation, for those on Zoom, at the bottom of your screen you can select the appropriate channel—either floor, English or French; for those in the room, you can use the earpiece and select the desired channel. I remind you that all comments should be addressed through the chair. For members in the room, if you wish to speak, please raise your hand. For members on Zoom, please use the “raise hand” function. The clerk and I will manage the speaking order as best as we can. We appreciate your patience and understanding in this regard.

I would like to welcome our witnesses. Today we are joined by Infection Prevention and Control Canada, represented by Dr. Kevin Stinson, program manager, infection prevention and control, Waterloo Regional Health Network. Welcome. He's here in person. We are also joined, by video conference, by Innovative Medicines Canada, represented by Dr. Bettina Hamelin, president and chief executive officer, and Jennifer Buckley, senior director, regulatory affairs and clinical research transformation.

Our third witness for today was supposed to be from Patients for Patient Safety Canada. Kim Neudorf, the patient partner, was supposed to log in through video conference, but she is having some challenges with the Internet. It is a problem on her end, but not from her. She doesn't have stable Internet, so she will not be able to log in. In the case that she can get to some other location or something, we will see, but right now she has not been able to log in because of her Internet situation.

All of the witnesses will have five minutes for their opening remarks, and then we will go into our round of questioning.

Today we will start with Dr. Stinson. Please go ahead. You will have five minutes for your opening remarks. Thank you.

● (1105)

Kevin Stinson (Program Manager, Infection Prevention and Control, Waterloo Regional Health Network, Infection Prevention and Control Canada): Thank you, Madam Chair and members of the committee, for having me here today.

We've heard in previous sessions about the significant economic and direct human health impacts that AMR is already having in Canada and across the world, and how that's going to be scaling and increasing in the coming years and decades. I'm here today speaking on behalf of the perspective of a microbiologist and an infection control professional.

While I work in the acute care hospital sector in Kitchener, Ontario for the Waterloo Regional Health Network, I'm representing today infection control professionals across Canada and across the continuum of health care through our professional association, IPAC Canada. Also, I would be remiss if I didn't mention that, serendipitously, today represents the start of national infection prevention week in Canada.

We've described AMR in past sessions as a “silent pandemic”. What this means is that a significant amount of transmission and a significant number of cases go undetected. Now, contrary to what we think of when we hear the term “pandemic” or “epidemic”, especially with recent memory, AMR has a bit of a unique challenge here. Anti-microbial resistant organisms, or AROs, have an ability to transfer genetic material that confers resistance from one bacteria to another. This includes transferring it into our human microbiome, the bacteria that naturally inhabit our bodies, and this leads people to become persistently colonized. The challenge with this is that then these people are more at risk of developing a resistant infection downstream, and they can act as reservoirs to transmit to others.

We see right now that nearly one in 10 Canadians admitted to acute care hospitals is colonized with at least one ARO. Those numbers increase dramatically when we look at low- and middle-income countries overseas.

There are major knowledge gaps in understanding this transmission and thus in understanding control measures to put in place to stop the spread. Our surveillance network and programs in Canada largely act as sentinels of large AMR trends, but they lack the depth and breadth to truly map transmission. They're also often generalized to a national or provincial level, which then lacks the granularity to take that information and translate it into meaningful practice to impact local policies and guidance.

In the health care setting, the infection control professionals represent a major aspect of the surveillance programs in health care. We utilize that information about AMR data to inform AMR surveillance policies, as well as control measures in our health care institutions, in trying to balance the needs of the community, but also in trying to balance clinical operational needs and financial stewardship.

Without that data, ICPs are left with trying to develop this epidemiological data themselves. Unfortunately, ICPs are not able to access or often unable to access—

[*Translation*]

Maxime Blanchette-Joncas (Rimouski—La Matapédia, BQ): Madam Chair, I have a point of order. We don't have interpretation at the moment.

[*English*]

The Chair: Okay. We'll stop. Let us figure it out.

Go ahead.

● (1110)

Kevin Stinson: Thank you, Madam Chair.

ICPs developing these control programs and surveillance programs in hospitals without that access to data that reflects their communities are left trying to develop that data themselves. Unfortunately, these infection control professionals often lack access to research dollars to be able to do the work needed to optimize their programs. That's especially true for rural hospitals and areas outside of the acute care sector, such as long-term care facilities.

In looking at solutions to these challenges, as short-term opportunities, we would include looking at how we better access research dollars and widen that access to the research dollars that are currently available. That includes looking at the idea of carving out a subset of that for small-cap applied research methodologies that are knowledge user-driven and directly aimed at targeting cost-effective and targeted control and surveillance initiatives in health care.

As a medium-term opportunity, we have to look to continue to grow and expand the infection control workforce in Canada, including through the development of training programs and training grants to bring more people into the field. Then it's to do continuous professional development and learning to increase epidemiology, surveillance, research and leadership skills for ICPs within the field.

As a long-term initiative, we need to look at how we improve our overall surveillance approach. How do we get to a point where we have an integrated, multi-sector approach that focuses on truly understanding transmission dynamics and finding control points, both in and out of the health care setting?

With that, I would like to, again, thank you all for the opportunity to present today. I have submitted a written brief that goes over these concepts in greater detail. I look forward to our conversation today.

Thank you so much.

The Chair: Thank you, Mr. Stinson.

We will now proceed to Innovative Medicines Canada.

Dr. Hamelin, the floor is yours. You will have five minutes for your opening remarks. Please go ahead.

Bettina Hamelin (President and Chief Executive Officer, Innovative Medicines Canada): Thank you, Madam Chair.

Good morning, committee members.

Other countries have acted, while Canadians risk dire consequences of AMR. This is why I'm here today.

While I represent Canada's innovative pharmaceutical industry—the industry that is discovering, developing and delivering life-changing medicines, diagnostics and vaccines—I want to begin with a story from the hospital floor.

A Canadian hospital pharmacist was recently called to consult on a patient with a severe infection caused by multidrug-resistant bacteria. Lab results confirmed that none of the usual antibiotics worked. One newer medicine that might have helped was not on the hospital's formulary. The care team scrambled to find a solution, but every hour mattered. The infection spread and the patient's condition deteriorated. That pharmacist said something that still haunts me: “This isn't rare anymore. This is becoming routine.” Antimicrobial resistance is not a future threat; it is a present crisis. Globally, drug-resistant infections already claim over one million lives each year. By 2050, that could rise to 10 million, with an economic toll in the trillions.

At its core, this crisis is about innovation and access. We are running out of effective antibiotics, and we're not replacing them fast enough. Development is scientifically complex, economically unrewarding and, in Canada, slowed by regulatory and reimbursement processes that, in fact, deter innovation. Between 2010 and 2021, Canada secured access to only three of the 18 new antibiotics launched globally, putting patients and providers at a serious disadvantage. Solving this requires both urgency and action.

IMC, alongside our national and global partners, supports the full implementation of the pan-Canadian action plan on AMR. This includes a pull incentive that rewards innovation and ensures timely access to new antibiotics. We welcome the federal program under development and urge the government to adopt the proposed refinements from the Canadian Antimicrobial Innovation Coalition and build a learning policy environment that evolves with evidence rather than political cycles.

Other countries have already moved. The U.K. has implemented a subscription-style pull incentive, Italy introduced one during its G7 presidency, and France will make AMR a priority in its upcoming G7 leadership. Canada's G7 leadership is rapidly ending. We must lead, not follow. Incentives alone aren't enough. Regulatory and reimbursement systems remain duplicative and slow. Health Canada must rely on efforts by trusted international reviews, a key step towards faster approvals without compromising safety.

Access delays persist. On average, it takes two and half years from Health Canada authorization to public formulary listing. For antibiotics targeting MDR bugs, every day matters. AMR is not just a health issue; it's an economic, security and geopolitical issue.

With the U.S. increasingly focused on domestic priorities, Canada cannot assume its support in a crisis. We must secure our own antibiotic supply chain, strengthen innovation at home and build alliances with countries committed to science and global health security.

This is about Canada's resilience. It's about ensuring Canadians have access to the medicines they need when they need them. If we act decisively, we won't just contain AMR; we'll build a stronger, more secure Canada.

● (1115)

Thank you, Madam Chair, and thank you to the committee. I look forward to your questions.

The Chair: Thank you, Dr. Hamelin.

The clerk has just informed me that Kim Neudorf has been able to log in. We will do a quick sound check, so that we can give her five minutes for opening remarks. I'll suspend the meeting for a minute so we can do the sound check for her.

Thank you.

● (1115)

_____(Pause)_____

● (1120)

The Chair: I call the meeting to order.

Welcome, Ms. Neudorf. You will have five minutes for your opening remarks.

Please go ahead.

Kim Neudorf (Patient Partner, Patients for Patient Safety Canada): Thank you.

I'm sorry for the disruption. It's been quite a morning.

Thank you so much for this opportunity. I'm from Saskatchewan. I represent Patients for Patient Safety Canada, which is a not-for-profit advocacy group. We examine how AMR and sepsis contribute to preventable physical and psychological harm.

The following experience involves an extended family member. It illustrates the human tragedy behind the science and the clinical, economic and social burden of AMR. It is shared with permission.

A healthy 70-year-old had a simple fracture of her foot. Two days later, there was pain in the cast, and her vital signs and cognition were worrisome. When the cast was removed, the foot looked terrible. Sepsis was eventually diagnosed. MRSA, an AMR pathogen, was identified. There were 419 consecutive days of hospital care. She lost her foot and averted amputation of her arm by two hours. Sepsis returned a second time and, in the end, MRSA and sepsis cost her her life.

Health care costs were estimated at $750,000. She never received a prosthesis, but a prosthetic foot can cost $15,000. For a hand, it's potentially $250,000. Her devoted husband was at her side each of those 419 days, incurring hotel, food and fuel costs. He did not go to work.

Patients for Patient Safety Canada incorporates a people-centred approach that extends horizontally across the five pillars of the action plan. We support the ecology of “one health”, but given our mandate, our recommendations centre on the central theme of engagement and empowerment.

The first recommendation is to support health promotion, infection prevention and early recognition by promoting personal agency in our communities, promoting personal agency as a patient or resident in congregate settings to prevent facility-associated infections, calling for health care accountability and adherence to standards developed by CSA, HSO and IPAC Canada, and research and innovation.

In terms of research and innovation, we'd like to see wearables or smart phone technology designed to alert us to critical vital signs, rapid diagnostics for accurate antimicrobial prescription and early recognition of sepsis, built environments designed to contribute to infection prevention and control, hand hygiene and environmental monitoring systems tied to performance reviews, and demographics and surveillance data to better understand the social burden of AMR. As well, given the alarming increases in STBBIs, more needs to be done upstream and downstream in terms of sustainable ergonomic environmental cleaning and disinfection innovations, continuing to fund the good work of the Sepsis Canada network, recognizing the current work of CIHR's national one health AMR research strategy to engage patients with lived experience, and mandating IPC education for all long-term care staff, including environmental cleaners.

The second recommendation is to develop resources for those of us who live with AMR. We live with AMR—

● (1125)

The Chair: Can you please wind up? Your time is up.

Kim Neudorf: Yes.

We live with AMR, yet self-management resources are lacking in access and quality, thereby affecting personal agency and the risk of transmission.

The third recommendation—and there's a whole series there—is to grow our public awareness. I've submitted a brief about that.

Thank you so much.

The Chair: Thank you, Ms. Neudorf.

With that, we will go to our round of questioning.

Our first round of questioning is for six minutes each.

We will start with MP Baldinelli.

Please go ahead. You have six minutes.

Tony Baldinelli (Niagara Falls—Niagara-on-the-Lake, CPC): Thank you, Madam Chair, and thank you to the witnesses for being with us today.

I'm going to begin with Dr. Hamelin and your comments that spoke to the need and the urgency of the issue. You specifically said that when every minute counts, we need to act, and that AMR is not “rare”; AMR is a “crisis”. You indicated that while other countries have acted, Canada is falling behind.

We have had other witnesses testify before the committee. For example, Dr. Castonguay indicated that it cost the provincial health care systems about $1.4 billion. We also had Dr. Leung appear, and he mentioned that Canada is falling behind in terms of antimicrobial therapies. You and Dr. Salama have said that as of now, “only three out of 18” new antibiotics launched worldwide are available in Canada.

I'd like to probe that a little further and find out why this is.

We have the Health Canada special access program. Is it costs? Is it the pharmaceutical companies having regulatory burdens in their way and not finding the ability to get drugs to the market?

You talked about the need to reward innovation. How does that work? How do we do that? How do we get to a place where we have access to all those drugs?

Bettina Hamelin: That is a very good question. I want to start by saying that I am seeing that our members have been at the ready since the very first federal consultation on AMR in 2018. What is really holding us back in Canada is that we do not have a predictable market structure for the industry to bring these medicines to Canada and commercialize them here. Government still has to finalize that structure.

I'd also like to emphasize that the engagement of the industry in this country has been constant. Every year, the industry invests $3.2 billion in research and development, which has an impact on our economy of $18.4 billion, creating 110,000 jobs. There is a presence of the industry here in Canada, but the missing piece is really a clear mechanism for sustained collaboration with all levels of government, with shared accountability and shared risk between government and innovators.

We are the last in the G7 when it comes to providing access to medicines in Canada. That's across all medicines. For antibiotics, where every minute counts, as we just heard from Ms. Neudorf, we just don't have two and a half years to go through all the red tape that we have to go through in Canada to bring these medicines to Canada.

Countries like the U.K. and Italy have figured out a collaboration with the industry to ensure these antibiotics make it into their countries. We are lacking that system here in Canada.

Tony Baldinelli: Thank you for those comments. It's disappointing to learn that we're last again, in something else with regard to being members of the G7, which finds itself here.

Dr. Stinson, with Infection Prevention and Control Canada, you represent individuals, people on the ground who work at the hospitals. Is there an aspect that you can speak to regarding the Health Canada special access program and what you're seeing on the ground?

Kevin Stinson: My side of the house is less with the direct treatment of patients and more with looking within a health care situation, with how we look at the population writ large and the transmission across that population.

I will say that we are now seeing far more complicated pathogens routinely coming into the hospital, not only as colonizations but also spilling into infections. We're seeing the rise in Canada of a pathogen—and I'm just going to call it "CPE" for simplicity's sake—that, when it causes a bloodstream infection, has about a 60% mortality rate associated with it. There are actually some novel drugs coming to market—or in market, just not in Canada—that could be targeted towards that. We don't have current access to that.

I know that my colleague, Dr. Greg Rose, who presented to this committee earlier, had discussions to that effect in previous conversations around a similar patient he could not find drugs for.

● (1130)

Tony Baldinelli: Thank you, Dr. Stinson.

My time is almost up, and again, you're talking about the representatives you work with who are on the ground. You talked about a lack of being able to apply for funding to do the type of research you're doing on the ground at the hospital level. I was wondering, as my time gets short, if perhaps you could share some of the ideas on how funding opportunities may be able to flow downward to on-the-ground officials like you.

Kevin Stinson: Yes, certainly.

Going back to that organism, CPE, right now a lot of hospitals in Canada are trying to work through the cost-benefit analysis of, "Do we bring in screening programs for that?", and this isn't just for small community hospitals. Large hospitals are having to fight the same problem. It doesn't cost a ton of money. You're looking at, depending on the size of your hospital, only $20,000 to $80,000 or $100,000, but this is a pathogen with significant risks to patient safety, and getting funds to pilot that kind of a surveillance program can help inform us: Does this make sense for our community?

The Chair: Thank you.

We will now go to MP Noormohamed for six minutes.

Please go ahead.

Tony Baldinelli: Thank you.

Taleeb Noormohamed (Vancouver Granville, Lib.): Thank you, Madam Chair.

Thank you to the witnesses for being here.

As Dr. Stinson points out, I don't know if it's "happy" national infection prevention and control week, but we acknowledge this week. Of course, the theme this week is to unite, prevent, protect and prevail, and I'm glad we're having this conversation on this matter today.

Dr. Hamelin, I'd like to start with you. You mentioned Italy and the United Kingdom. These are single-jurisdiction health care systems. One of the big challenges we face in Canada is the notion that a federal approval happens for drugs and then 13 different jurisdictions get to decide how it is going to play out in their respective jurisdictions. We've seen certain provinces that have been far more hesitant than others in terms of bringing in new drugs.

Would you recommend the elimination of the 13 different jurisdictions and support a single approval at the federal level and then, downstream, a decision from there, as opposed to having 13 different decisions?

Bettina Hamelin: I think what's really important is to recognize the uniqueness of Canada. Canada is a federation; there are roles for the federal government and there are roles for each of the jurisdictions. We have to acknowledge that and work with all levels of government, because everyone has a really important role to play.

In this instance, the federal government has an important coordination role to play to ensure drug supply and to ensure that there is a list of the most pressing resistant bugs that would be the target for the next list of antibiotics that we need to bring into the country, but between the regulator—Health Canada—and the jurisdictions, there are actually multiple organizations that have played various roles and added significant red tape, which leads to that two-and-a-half-year period after Health Canada approval.

There is Canada's Drug Agency, which doesn't really recognize the value of innovation as much as other jurisdictions. We then have the pan-Canadian Pharmaceutical Alliance, which negotiates pricing on behalf of the provinces—pricing that provinces may or may not accept—and then industry negotiates again with the provinces. There are all of these different steps.

There's a way we need to find in Canada to tackle the fragmentation. In the industry, we are at the ready to work with the federal government and the provincial governments to tackle that, because it's just not sustainable with everything that goes on geopolitically, particularly in disease areas, where every hour counts.

● (1135)

Taleeb Noormohamed: Thank you very much.

You mentioned that every hour counts, and it seems to me that two and a half years once Health Canada has approved a drug is certainly problematic. If you have any specific ideas—anything you have on that, and ways in which we might take that forward—could you submit that to us in written form? I think that would be very much appreciated by all members of this committee.

Bettina Hamelin: I'd be delighted to do that.

Taleeb Noormohamed: If I could switch to you, Dr. Stinson, you and your colleagues work at the front line of some of the challenges we're seeing. One of the unfortunate things we have seen over the course of the last little while, which I think adds another layer of complexity to the work that I know you were trying to do and that you would like us to be doing, is the degree of misinformation and disinformation that has been spread in terms of prevention and treatment of new illnesses and new diseases as they come up.

It has shown up in the form of vaccine hesitancy. It has shown up in the form of misinformation about people trying to control some of the most unfortunate types of things, much of which, unfortunately, has been perpetuated by some politicians from the Conservative side of the House—not all, but certainly some.

What impact do you think that has on the work you are trying to do? What message would you have for politicians who have been trying to cause fear as new medications and new treatments emerge? What are the consequences of that type of misinformation on patient outcomes?

Kevin Stinson: Certainly, there is a lot of rhetoric, including rhetoric from south of the border right now, that is really ramping up hesitancy or skepticism in science. The challenge is more intrinsic to people. Your mind gets into a sense of what seems right, what seems normal, what seems familiar, so you can get into this pattern of correlation versus causation and not being able to sit back and look critically at data.

My sole comment on that—and I'm not going to touch on the political “one party versus the other” aspect—to people on both sides of the aisle would be to simply listen to the scientific experts in the field, because they're the ones sitting there doing the work to critically come up with statistical or analytical interpretations of the data.

Taleeb Noormohamed: Thank you for that, and thank you to everyone for their insights.

The Chair: Thank you.

Now we will proceed to MP Blanchette-Joncas.

Please go ahead. You will have six minutes.

[*Translation*]

Maxime Blanchette-Joncas: Dr. Hamelin, according to OECD data, Canada is the only G7 country to have reduced the share of its gross domestic product spent on research and development between 2001 and 2021, while all our partners increased their investments.

How do you explain a decline of this nature, and what concrete impact has it had on our ability to innovate and maintain a competitive pharmaceutical ecosystem?

Bettina Hamelin: Canada invests fewer dollars in research and development than other OECD and G7 countries. We've always invested less, and now we're losing even more in that respect.

However, I want to emphasize the fact that the pharmaceutical industry has been investing more and more in research and development in Canada for a number of years now. We can show you the data. Right now, they are investing $3.2 billion in research and development and forming partnerships within our ecosystem. Quebec, for example, has a thriving life sciences ecosystem. There's recognition of that, and industry is investing in it. In addition, 30% of our members' businesses are in Quebec.

Having said that, I think that the federal government and all provincial governments have an important role to play by having conversations with the industry and by putting incentives on the table to attract more investment to Quebec and Canada. Otherwise, we will continue to lag behind the rest of the world.

● (1140)

Maxime Blanchette-Joncas: I'll continue with the Quebec example you mentioned. You said it well: Quebec was a driving force in the pharmaceutical industry. We recall a number of pharmaceutical giants closing up in the early 2000s. Labs were closed down and we went through a brain drain as people left for other countries. We were able to retain a few experts in the ecosystem. However, during the COVID-19 pandemic, Canada was entirely dependent on foreign partners. It remained the only G7 country unable to produce its own vaccine.

How do you perceive that? How can we prevent it from happening again? How can we develop real scientific and industrial independence?

Bettina Hamelin: First of all, we have extraordinary scientific capacity in Quebec and Canada. We have everything we need to build a life sciences industry in Canada. Then again, the federal and provincial governments would need to recognize this industry as a real economic driver in Canada and Quebec.

Plus, the industry model has changed. We must recognize that it's less of a model with big buildings and big labs and more of a consolidated model with partnerships and investments.

In Quebec, you were able to attract Moderna to build a vaccine production company, and that's great. In Ontario, we have Sanofi producing vaccines. In British Columbia, we have companies like AbCellera that are able to make antibodies against COVID and other infectious diseases. We really have the capacity to do that, so we have to invest, work with industry, develop incentives and create a market that helps Canadian and multinational businesses market their products in Canada.

We shouldn't have to wait for Health Canada approval for a year and another two and a half years to be reimbursed for a drug. It can take up to three and a half years, whereas the United States and Germany reimburse for drugs immediately. Therefore, markets must be developed hand in hand with the innovation system in Canada.

Maxime Blanchette-Joncas: You mentioned that Canada has no leadership on antimicrobial resistance in the G7, but France and Italy do. Do you think this delay is related to the fact that our share of GDP devoted to science has remained one of the lowest in the G7 since the early 2000s?

Bettina Hamelin: I think it's because we talk, but we don't take action. However, we know how to do it, we know how to create incentives, particularly for antibiotics in Canada. We can learn from other models and adapt them to Canada. We've already shown that it's possible, since we've worked with Ontario, and we want to work with Quebec on it.

We really need to get moving and save lives in Canada.

Maxime Blanchette-Joncas: Thank you.

[*English*]

The Chair: Thanks a lot.

We will now start our second round of questioning, with Ms. DeRidder for five minutes.

Please go ahead.

Kelly DeRidder (Kitchener Centre, CPC): Thank you so much.

Dr. Stinson, I was going to go down one path of questioning, but then you mentioned something that made me completely alter my thoughts here. You said that “one in 10” patients “is colonized with at least one” antibiotic-resistant organism during their stay in hospital. You're very community-focused, and you're right in my community in Kitchener, so I have some community questions for you.

What has this drug crisis in Kitchener contributed to the spread in the transmission of AROs in our community?

● (1145)

Kevin Stinson: To be clear, it's close to one in 10. It's a little bit below, and it's not necessarily colonized in that particular stay in hospital. However, because people are persistently colonized, it's a persistent issue for that patient.

Certainly, the drug and opioid epidemic and the associated homelessness or underhoused challenges that that's creating.... You have people being crammed into very poor living conditions, often with poor states of sanitation, poor overall states of health and poor access to health care facilities themselves. It ends up being an area that's really unexplored but highly concerning for transmission within that population. You imagine one person going back into that population or into that encampment, for example, and the challenges. If they are colonized with an ARO, they can now start to transmit to those around them. Again, it's not necessarily an infection at that point; it's colonization. Now, though, the person has resistant bacteria as part of their normal microflora. If the person gets, let's say, a bacterium from injecting opioids, that now has a risk of being a resistant bacterium, which has significant impacts on their health.

Kelly DeRidder: It's compounding the situation.

Kevin Stinson: Absolutely.

Kelly DeRidder: In Kitchener, we had a huge population influx because of the failed international student program. Did you see that population influx as well because of that program, especially in Kitchener?

Kevin Stinson: I don't know that I've seen an international student population necessarily being what drives into the hospital sector. Overwhelmingly, the majority of those coming into hospital are still older adults. We certainly see some younger adults, and we see some students, but I don't know that it was that big a driver in changing the dynamics of the population coming to the hospital. Unfortunately, I just don't have the statistics on those admission demographics.

Kelly DeRidder: Thank you.

I'm going to ask Kim one question, and then, if I have time, I'll come back to you, Dr. Stinson.

Kim, do you have data on people in our country who have died from sepsis or infection to date because of homelessness or drug use?

Kim Neudorf: I don't. The social demographics that go along with the microbiology are an area that needs to be studied. It is underinvestigated.

AMR, sepsis and sexually transmitted infections in our province are very high. MRSA is very high. Syphilis and antimicrobial-resistant gonorrhea are very high. I recently saw the statistic that between 2018 and 2022, there was a 1,444% increase in syphilis. I can't remember if it was in the prairie provinces or Saskatchewan.

Regarding your last question to Dr. Stinson, on the disparity our communities are in right now and the way it's increased in the past 10 years, the lack of access to sanitation and hygiene is really affecting their dignity, of course, but it's affecting infection control and sexually transmitted infections as well. Sanitation is a part of it, and so is gynecological health. They're all a part of it.

I think our communities need to do a better job of helping the vulnerable who do not have access to hygiene and water hubs. We could create shower hubs, which I think they are doing in Vancouver, or there are thoughts about it. In my province, in Saskatoon, we—

The Chair: Ms. DeRidder, your time is up.

Kelly DeRidder: Thank you.

The Chair: Thank you.

We will now proceed to MP McKelvie. I think you are sharing the time with MP Jaczek.

● (1150)

Jennifer McKelvie (Ajax, Lib.): She is welcome to start.

Hon. Helena Jaczek (Markham—Stouffville, Lib.): Thank you so much, Madam Chair.

Thank you to all our witnesses today.

My first question is for Dr. Hamelin.

The approval process starts with Health Canada. Since you've referenced international approvals being so much quicker in various countries, do you have any recommendations for reciprocity between Canada and other like-minded, similarly science-based organizations in other countries?

I'd like to start with that.

Bettina Hamelin: I will also invite my colleague Jennifer to comment, as she is working closely with Health Canada.

Health Canada is currently considering novel pathways to rely on regulatory decisions from other jurisdictions that are faster in their review process and get to the files earlier than Health Canada. The FDA used to be the fastest. We'll see how that evolves with the changes there. The EMA also approves more quickly than Health Canada. Health Canada is looking at reliance mechanisms.

Jennifer, would you like to comment a bit more on the specifics?

Jennifer Buckley (Senior Director, Regulatory Affairs and Clinical Research Transformation, Innovative Medicines Canada): Sure. Thank you, Bettina.

We've been working with Health Canada. Health Canada has been doing some great work, looking at reliance as well as work sharing. There are a number of regulators globally that have similar scientific backgrounds and similar approaches, so there's a real benefit and value in greater global collaboration.

There is a program called Access that Health Canada is a part of. There is work under way to make that process more effective. The overall goal is to ensure that Health Canada remains a world-class regulator and maintains its ability to have the scientific expertise in house as well, but it's also to ensure that it has that global collaboration that really makes science and research and development more effective and more efficient in Canada and globally as well.

Hon. Helena Jaczek: Thank you for that.

I'll follow up on my colleague MP Noormohamed's question, Dr. Hamelin. Once Health Canada has approved in terms of the safety and effectiveness of the particular product, it seems, and we've certainly heard, that it's a duplicative effort on the part of provinces to a certain extent. They obviously have the issue of the cost and price of a particular product, perhaps, for their own jurisdiction.

Could you elaborate? I know you committed to sending written information, but could you tell us about how you could see streamlining that process?

Bettina Hamelin: Following Health Canada, Canada's Drug Agency evaluates the pharmacoeconomics of a new product. As part of that, it also evaluates clinic evidence that has already been evaluated by Health Canada in order to make the decision that a new product is safe and effective. There is a duplication there.

The pharmacoeconomics is also undertaken by the industry. The challenge is that the pharmacoeconomic model that Canada's Drug Agency applies at the moment has not been updated in a long time, and it uses comparators that are really quite outdated in terms of the value of a human life. It also does not take into account the value of a new product, a new medicine, in terms of saving lives, in terms of keeping people productive and participants in our economy. There's an imbalance in terms of looking strictly at the cost.

Then, the pan-Canadian Pharmaceutical Alliance starts its activities only once Canada's Drug Agency has made its decision and has made a recommendation. If the recommendation from Canada's Drug Agency is a negative one, the industry has invested all of this investment to no avail, because it's very difficult to start the process again. Then, the negotiations—

● (1155)

The Chair: I'm sorry for interrupting. Time is up.

Bettina Hamelin: It's a long process, but I'm happy to provide details.

The Chair: Yes, please. Thank you.

We will now proceed to Mr. Blanchette-Joncas.

Please go ahead. You will have two and a half minutes.

[*Translation*]

Maxime Blanchette-Joncas: Dr. Stinson, universities play a critical role in infection prevention, but research often remains underfunded, especially outside of major centres. Given that Canada is lagging behind other G7 countries in R and D investment, what recent innovations do you think hold the most promise or are most easily applied in the field to spur prevention and collaboration between researchers and clinicians?

Kevin Stinson: Thank you for the question. I will answer it in English.

[*English*]

With regard to a research funding capacity, universities are that main aspect of where the research is occurring. One opportunity that we need is how to get less of the academic, high-level research and how to drive that to applied, translatable research.

When we look at opportunities along those fields, one example right now is that we have industries in Canada and abroad bringing in—as Kim referred to—infection control technologies and engineered environments. It's very difficult right now to say what the cost-benefit analysis of these expensive technologies is for truly preventing infections. The literature is very poor on doing that analysis, so there's a huge opportunity there.

[*Translation*]

Maxime Blanchette-Joncas: People often talk about evidence-informed decision-making. Do we have enough reliable and accessible data today to inform our prevention policies? Have the lessons learned from COVID-19 really been incorporated into long-term planning?

[*English*]

Kevin Stinson: Our data is at best generalized. It gives us trends, but it does not really map transmission. In order to take that and to implement something that makes sense for a community, for a small subsection, we need to have a better sense on the granular level.

We also need to look at sectors outside of just acute care. That's where the majority of surveillance data comes from, but right now—in southern Ontario for example—multiple hospitals, including our own, are seeing this trend of one particular pathogen increasing dramatically. If it's multiple hospitals all seeing the same trend, it's clearly not purely a hospital problem. There's a community element to that, but we really don't have any data looking at community transmission.

The Chair: Thank you. Your time is up.

We will end this panel at 12:05, as we suspended the meeting for five minutes. We will have four minutes for Mr. Mahal and then four minutes for MP Rana.

MP Mahal, you will have four minutes. Please go ahead.

Jagsharan Singh Mahal (Edmonton Southeast, CPC): Thank you, Madam Chair.

I'll be sharing my time with MP Ho, if there is time.

I will start with Dr. Hamelin.

Doctor, in your testimony and in the answers to my colleagues, you answered that there is no structure to commercialized medicine in Canada. Is it that there's no structure or that there are too many structures and too much red tape that comes into play when it comes to commercializing the drugs? Which one is it? Is it too much red tape, or is it no red tape?

Bettina Hamelin: There is too much red tape, and there are too many structures doing duplicative work, although there are some attempts happening to overlay some of this. There are too many structures, too much red tape, and that really prevents us from bringing medicines to Canada.

Jagsharan Singh Mahal: You also commented that when it comes to AMR and the researchers in regard to AMR, we lack, or we stand last in the G7.

Who do you think is responsible? Is it because of the federal government or the red tape? Is it because of academia and that there isn't enough research done on it, or is it because of the production side of the drugs? Which one is more responsible?

● (1200)

Bettina Hamelin: The comparison to the G7 refers to the time it takes to reimburse the medicine—the time to put the medicine on a hospital formulary.

The Canadian researchers are stellar. It does not have to do with the research. The research on antibiotics, specifically, is tough research, because the mechanisms are complex, and because, as Dr. Stinson explained, the genetics change. The research capacity in Canada certainly is there.

It really has to do with too much red tape that prolongs the processes to bring medicines to the patient.

Jagsharan Singh Mahal: Thank you for the answer.

Dr. Stinson, you referred to this in your testimony, and you heard from other members of the panel as well that there are different levels of government and that there is misinformation and disinformation that is being spread out.

I can speak about the experience I had with my mother. My mother had a UTI, and she was at a stage where she developed AMR. After two weeks of treatment at the local hospital of Gray Nuns, which is in my riding, they had to order a drug that had to come from Ontario. It took about, I think, two to three weeks.

Would it not be better if we were to have a body at the federal level that would provide those drugs to all the provinces, to all the local bodies, and that would also work with their motor facilities to respond to those day-to-day challenges? How would you respond to that?

Kevin Stinson: Yes, absolutely. This isn't just a problem with antimicrobials.

For many of the drugs where you have to go through the special access program to gain access, there is a delay in getting them into Canada and actually to the patient's bedside. Unfortunately, in that delay, when you are dealing with someone who is critically ill, every minute counts. That delay has the direct risk of impacting lives.

The Chair: I'm sorry, Mr. Mahal. Your time is up.

Jagsharan Singh Mahal: Thank you.

The Chair: Thank you.

We will now go to MP Rana.

MP Rana, you will have four minutes. Please go ahead.

Aslam Rana (Hamilton Centre, Lib.): Thank you, Madam Chair.

Thanks to the witnesses for their valuable time.

Through you, Madam Chair, I will ask Dr. Hamelin a question.

You have worked in academia, industry and general medicine. Now that you lead IMC, how do you see Canada's research landscape changing when it comes to tackling antimicrobial resistance?

Bettina Hamelin: Canada has a huge opportunity to advance AMR by putting in place the pan-Canadian AMR plan to make this a program that is a long-lasting program and a collaboration between the industry and all levels of government.

That would bring investments to the antimicrobial space. It would bring investments to Canada. It would bring more clinical trials to Canada. It would create jobs in Canada.

What it requires is really executing on this plan, doing this as fast as possible and engaging in this push-pull incentive: a real collaborative approach between the industry and all levels of government in Canada.

Aslam Rana: What are the biggest challenges companies are facing in Canada in developing antimicrobial and antibiotic solutions?

Bettina Hamelin: The biggest challenge for the industry in Canada is the unpredictability of the marketplace. That puts a huge risk on the industry.

Also, keep in mind that with special access programs, basically the accountability is entirely on the industry to provide medicines for free. I think that really deters innovation as a whole, whether it is related to antimicrobial resistance or other disease areas of unmet medical need.

● (1205)

Aslam Rana: What kind of role should the pharmaceutical industry play in AMR?

Bettina Hamelin: In AMR, the industry is discovering and developing new antibiotics. There are 18 of them available around the world. Only three of them are available in Canada, because of all of the red tape, which we've discussed already.

I think the role of the industry is to engage with the government, but the role of the government is to engage with the industry, to really put in place the plan that has been discussed since 2018 and to execute on that plan in collaboration with the industry.

Aslam Rana: Thank you very much.

My last question is, how does Canada stack up against other countries when it comes to AMR research and industry involvement?

Bettina Hamelin: Well, Canada stacks up highly in terms of research capacity. We have among the most highly educated workforces in the world. We have companies that grow out of the infectious disease area, notably AbCellera in B.C., but there are many other start-up companies.

We should not forget about the importance of diagnostics. Canada is very strong in diagnostics, particularly in the genomics field. That is really state of the art. This is being used in other jurisdictions, not so much in Canada, although we are among the world leaders when it comes to genomics research and diagnostic tests. Roche Diagnostics has a big facility in Quebec.

We have huge strengths, but we're not utilizing them. We're not bringing them into the health care system. That's another thing we really have to do.

Aslam Rana: Thank you very much.

The Chair: Thank you, MP Rana.

With that, this panel comes to an end.

I really want to thank all of the witnesses for appearing before the committee and providing your important testimony.

With that, we will suspend the meeting and go in camera for committee business for the second hour. The meeting is suspended.

[*Proceedings continue in camera*]

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