1ER SYMPOSIUM QUÉBÉCOIS SUR LE SURDIAGNOSTIC

OVERDIAGNOSIS:
FINDINGS AND ACTION PLAN

QMA
Doctors IN ACTION

“But the 1 percent of patients who consume some 21 percent of health care costs, usually succumbing gradually from multi-organ failure, illustrate the progress problem. Fifty years ago they would have died faster and, in many cases, with less suffering. We have traded off shorter lives and faster deaths for just the opposite, longer lives and slower death.”

— DANIEL CALLAHAN
The Difficult Child of Medical Progress, 2012

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Glossary

ACMDP: Québec Association of Councils of Physicians, Dentists and Pharmacists

ACMDP is the association of Councils of physicians, dentists and pharmacists (CMDPs) of the province. In each of the health care facilities, the CMDP has the responsibility to control the quality of medical procedures. It formulates recommendations, evaluates the skills of physicians, dentists and pharmacists, and gives advices on professional aspects related to the technical and scientific organisation of the health care facility.

AQESSS: Québec Association of Health Care Facilities

AQESSS is the association of health care facilities in Québec. It groups health and social services centres, teaching hospitals, acute-care hospitals and long-term care centres.

CSSS: Health and Social Services Centre

Health and social services centres (CSSSs) were born out of the merger of local community services centres, residential and long-term care centres and, in most cases, a hospital. These centres provide the population of a local territory with services of a preventive, evaluative, diagnostic and curative nature, rehabilitation, support and public institutional residential services. They offer general and specialized hospital services (emergency, outpatient services, local medical specialties and basic diagnostic facilities).

INESSS: National Institute of Excellence in Health and Social Services

The mission of the Institute is to promote clinical excellence and the efficient use of resources in the health and social services sector. More particularly, the Institute's mission consists in assessing the clinical advantages and the costs of the technologies, medications and interventions used in health care services.

INSPQ: National Institute of Public Health

The mission of the Institute is to provide support to the Minister of Health and Social Services and to the regional authorities in connection with their responsibilities in the field of public health. More specifically, the mission of the Institute involves contributing to the development, consolidation, dissemination and application of knowledge in the field of public health.

MSSS: Department of Health and Social Services

The MSSS establishes the policy directions in the area of health and social policies and assesses, for the entire health and social services network, the results obtained in relation to the goals set. It centres its actions on its basic responsibilities which are: planning, funding, allocating financial resources, follow up and evaluation.

QMA: Québec Medical Association

The Québec Medical Association is a voluntary enrolment organization regrouping 10,000 physicians, residents and medical students. Its mission is to bring together the medical community in a context that promotes reflection and action in order to improve the practice of medicine and the health of the population. In partnership with the Canadian Medical Association, the QMA provides exclusive tools to its members to improve their practice.

Introduction

Optimizing clinical practice is a prime concern in many health care systems around the world. Australia, England and the Unites States, among others, have published reports demonstrating the need to act and change the way of doing things. Canada, and as a result, Québec, are not unique either. Many stakeholders in the Québec health care system have long been calling for a profound change in the organization of health care.

Optimizing clinical practice is a complex issue and can be approached from several angles. The Québec Medical Association (QMA) decided to start by tackling the aspect of overdiagnosis, an issue that cannot be ignored in any discussions or reflections on optimizing clinical practice. Overdiagnosis and other related problems, such as overmedicalization, overdetection, diagnosis creep and overtreatment, greatly impact the quality and accessibility of the health care offered to patients, and as a result, the efficiency of the entire health care system.

Instead of looking for guilty parties, the QMA would rather propose solutions and engage the medical profession to take actions that will benefit the Québec health care system. It has already created a steering committee on optimizing clinical practice. The INESSS [*National Institute of Excellence in Health and Social Services*], the AQESSS [*Québec Association of Health Care Facilities*], the INSPQ [*National Institute of Public Health*] and the ACMDP [*Québec Association of Councils of Physicians, Dentists and Pharmacists*] have joined the QMA to create a groundswell and ensure there is progress on discussions about overdiagnosis.

Subsequent to various QMA activities targeting this topic, media and political circles are starting to pay greater attention to overdiagnosis. It has definitely become an unavoidable issue.

The QMA took on the mandate to consult the medical profession and the main health care stakeholders on the aspects of this problem that needed priority attention. Consequently, on April 2, 2014, the QMA organized the first Québec Symposium on Overdiagnosis. It laid the first stone of a vital movement to optimize clinical practices in Québec. The commitment and capacity for concerted action shown by the members of the steering committee on optimizing clinical practice have set the tone for the work started at the symposium.

The QMA's strategy, which consists in getting health care organizations directly involved, proved to be effective in this particular case. By inviting physicians from all clinical environments, as well as representatives of medical and professional associations, the Collège des médecins du Québec [*College of Physicians*] and other professional orders, regional agencies and patient advocacy groups to an open discussion on overdiagnosis, the QMA and its partners created a unique opportunity to reflect upon and talk about the issue. The fact that the number of participants greatly exceeded the organizers' expectations shows that the topic of overdiagnosis touches a nerve for many.

This action plan thus aims to continue the discussion and the work to optimize clinical practice, and, in particular, to provide guidance for the actions that will be taken to reduce and prevent overdiagnosis. We first briefly summarize the main aspects of the issue and the theoretical model that was retained to guide the discussions at the symposium. The key elements of the first Québec Symposium on Overdiagnosis are then detailed. The «What You Told Us» section gives an overview of the discussions and potential solutions suggested by symposium participants. The last section of the report breaks down the discussion topics and proposed actions into categories presented under main orientations, with details related to the objectives and courses of action.

A Definition and the Theoretical Model

The debate on substantial differences in the decision-making process followed by physicians in similar situations was already well under way in the 1980s. In a report by the Organization for Economic Cooperation and Development in 1990, Klim McPherson, wrote the following:

> "What often happens in the medical decision-making process is a complicated interaction of scientific evidence, patient desire, doctor preferences, and all sorts of exogenous influences, some of which may be quite irrelevant. This tends to mean that the extent to which individual clinical decisions can actually be justified by a coherent body of scientific knowledge is likely to be variable [...]
>
> [...] In many situations, equally qualified physicians might disagree on which treatment is optimal. There is often no scientifically correct way to practice much of medicine. Many accepted theories concerning the treatment of illness have not been adequately assessed, and consensus based on knowledge of treatment outcomes is the exception rather than the rule.
>
> [...] However, to question and evaluate medical care practice fairly [...] it is necessary to recognize all important uncertainty that exists."

At first glance, this finding may seem harsh, but it is clear that it has not been dismissed. Advocates of quality in health care use this statement to promote the need to question our ways of doing things in order to raise the quality of health care and services.

The introduction of ever-higher quality improvements in other production and services sectors has made people realize that something is not quite right in the health care systems. In the US in particular, health care costs are so high that they are a serious threat to the country's competitiveness. In an article published in the *American College of Physician Executives* journal, a senior manufacturing executive is stated as saying, "For the past decade every one of our suppliers—except health care—has offered us higher quality at lower costs. Health care alone continues to offer us lower quality at ever-increasing cost!"

Another aspect that questions the idea of assured quality when it comes to health is medical errors. While the well-known 1999 report titled *To Err is Human* placed medical errors as the fourth and eighth leading causes of death in the US, another recent report ranks them as the second highest cause of death, right behind all cancers! An analysis published in the *Journal of Patient Safety* in September 2013 by John T. James estimates there are at least 210,000, and probably up to 440,000, deaths that can be attributed to medical errors.

This brief overview should be a powerful incentive to encourage all stakeholders concerned to seek and implement innovative, safe solutions to offer our population quality, ongoing and well-coordinated health care services. The causes behind the different problems described are many, and they are without doubt complex. One of them is overdiagnosis.

Despite ever-increasing investments in the Québec health care system, many indicators show that the services

[1] *Past, Present and Future of Health Care Quality: Exploring three avenues to improve patient care.* Martin D. Merry, MD, Michael G. Crago, PhD, September-October 2001

> *In pursuing the supposedly self-evident truth that prevention is better than cure, we have, for the first time in history, separated our notions of disease from the human experience of suffering and have created an epidemic of disease without symptoms, defined only by aberrant biometrics. An ever greater proportion of healthcare resources are directed towards reducing these numbers to some fictitious state of normality and, in the process, those who are perfectly well are not only assigned labels, that in themselves can be shown to compromise health, but are also exposed to treatments with significant adverse effects."*
>
> - DR IONA HEATH,
> former President of the *Royal College of General Practitioners* in the UK,
> at the first Québec Symposium on Overdiagnosis

offered do not reflect the investments. This phenomenon is not unique to Québec. According to studies compiled by the *Institute for Healthcare Improvement*, between 17% and 30% of the actions taken in the US are useless and avoidable.

While the concept of quality should be central in the care offered to the population, it is surprising to observe that many medical and clinical procedures go against this principle. Models explaining the concept of quality for the most part show that several criteria must be met in order to offer quality care. Consider, for instance, the model adopted by the *Health Quality Council of Alberta*.

Among the dimensions listed, taking a closer look at "appropriateness" shows that it is briefly defined by the fact that people get the care they need, and at the same time, that they need the care they get.

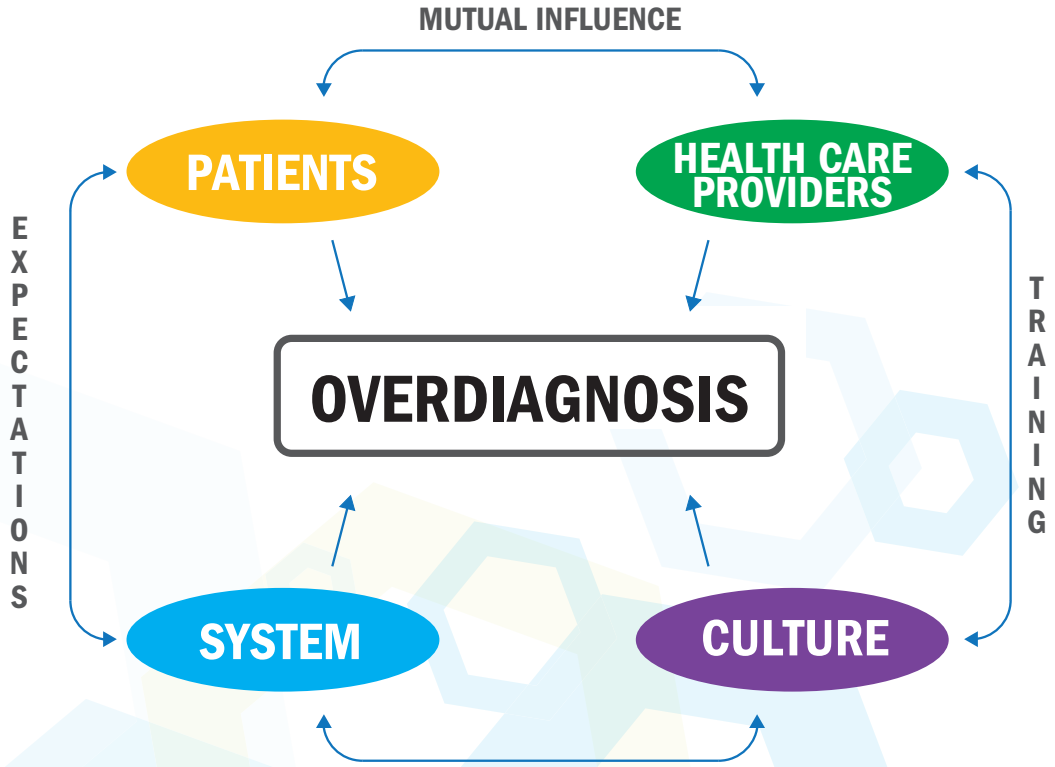
More precisely, this model defines appropriateness as health services that are relevant to user needs and are based on accepted or evidence-based practice; the intervention selected is the one that is most likely to produce the optimal results. It is based on individually assessed needs, risk factors and costs. It requires that providers of care avoid overuse (i.e. where the potential for harm exceeds the potential benefit) as well as underuse (i.e. failure to provide a service when it would have produced a favourable outcome for the patient). The impact of overdiagnosis on the quality of care offered to patients falls largely under the dimension of appropriateness, although it also has an impact on the other dimensions.

Many definitions for overdiagnosis coexist in the literature. In fact, the authors and professionals who are interested in the topic offer various definitions themselves. In September 2013, one of the objectives at the first international *Preventing Overdiagnosis* conference, which took place in New Hampshire, was to take a collective look at the phenomenon and agree on a common vocabulary. Despite the various nuances, the participants and presenters reached a consensus on the following definition:

> Overdiagnosis occurs when people are diagnosed with a disease that ultimately will not cause them to experience symptoms or early death, or a procedure is done that does not add value to a treatment.

For our part, in order to go beyond the limits of this definition, we add consideration of the real benefits of some interventions compared to the risks involved, including the financial burden. The cost/benefit/risk equation must remain a central part of our discussion and our action when it comes to the issue of diagnosis inflation.

To provide a framework and a model for the problem of overdiagnosis, the QMA was inspired by the work of Parmar, M. and Parmar K. (2013) , who presented a classification system of the different factors that contribute to overdiagnosis. These factors are grouped into four broad families. The QMA adapted these families of factors to create what it



(Adapted from Parmar, M. and Parmar K., 2013)

has called vectors of diagnosis inflation. These vectors appear as interdependent elements that influence each other, as shown in the theoretical framework above.

Many factors contribute to inflate diagnoses and treatments. These factors can be grouped into four main vectors that are not necessarily mutually exclusive. The behaviour adopted by health care providers can be influenced by the attitudes and needs expressed by patients. Similarly, some very structured systemic components (such as compensation methods or the organizational structure) can influence health care policies as well as the medical culture itself.

The expectations that patients have of our health care system, which are reinforced by different factors, also contribute to shape the behaviours they adopt when interacting with health care professionals. Finally, the training received by professionals is also a non-negligible factor that influences their behaviour.

Our system's culture can also encourage the different players to increase the interventions, while minimizing the risks, amplifying the benefits and giving little heed to the associated costs. If there is one factor that is common to the four vectors of inflated treatment, it is the deeply rooted certainty that "doing more is better".

More specifically, the model from Parmar, M. and Parmar K. (2013)[2] indicates the factors that contribute to the vectors of inflated diagnosis. On this basis, the QMA decided to initiate discussions with health care stakeholders. The next section describes the symposium and the consultation method, and presents the main guidelines of each of the factors that contribute to the vectors of diagnosis inflation.

[2] Parmar, Malvinder S., Parmar, Kamalpreet S. *A systematic evaluation of factors contributing to over-investigations and over-diagnosis*, Presentation made at *Preventing Overdiagnosis*, The Dartmouth Institute, Hanover, NH, September 2013.

Key Elements of the Symposium

By organizing the first Québec Symposium on Overdiagnosis, the QMA and its steering committee on optimizing clinical practice wished to do more than just increase awareness of this issue. Although greater awareness is the first milestone in a change process, the QMA wanted to engage the stakeholders concerned by this phenomenon. The symposium therefore had three objectives:

- Make all key players in the health care system more aware of the adverse effects of overdiagnosis and overtreatment in our health care system;
- Reach a common understanding of the different concepts associated with overdiagnosis and overtreatment;
- Establish the foundations for a concerted action plan to deal with the problem of overdiagnosis.

The QMA initially invited representatives of the medical and professional associations, the Collège des médecins du Québec [*College of Physicians*] and other professional orders, the Ministère de la Santé et des Services sociaux [*Department of Health and Social Services*], regional agencies and patient advocacy groups to participate in the symposium. Many physicians who are QMA members were added to this group. The room thus held a fairly accurate representation of the medical profession: family and other physicians who worked in numerous specialties and from a variety of regions across Québec, some also with management duties within their institution. The health care system administration was also well represented by officials from the MSSS and managers from regional agencies. In addition, patients were represented by patient advocacy groups.

To reach the symposium objectives and enable an exchange of ideas, a combination of interactive workshops alternating with presentations was chosen. Two guests from outside Québec, Dr. Iona Heath from England, and Dr. Anthony B. Miller from Ontario, readily agreed to take part in this effort to discuss the major issues of overdiagnosis.

A leading figure in the international movement to address the effects of overdiagnosis, Dr. Iona Heath captivated the participants with a resonating, candid talk. She invited physicians and the public to think about the limits of medicine: "*We must remember that death curtails our joys but it also sets limits to our misery,*" and to exercise judgment when it comes to health: "*Whenever I see the sort of guidelines that are, right now, driving overdiagnosis and overtreatment, I think of this: our responsibility not to follow the rules.*"

Dr. Anthony B. Miller, a physician-epidemiologist, recently published research findings illustrating that screening mammograms did not reduce the risk of death from breast cancer. He presented several studies showing that screening often resulted in overdiagnosis and overtreatment, and stressed the importance of continuing research to distinguish the real benefits of screening compared with cases of overdiagnosis.

To start the discussions on each of the vectors in the theoretical model presented earlier (patients, health care providers, culture and system), many well-known health care figures in Québec came to present their thoughts on the issue. Vincent Dumez and Dr. Philippe Karazivan presented the "patients» vector. Dr. Georges Lévesque and Dr. Jacques Lévesque launched the debate on the "health care providers" vector. Dr. France Légaré and Dr. Jean-Bernard Trudeau

shed more light on the main issues surrounding the medical culture. Finally, Dr. Fernand Turcotte and Dr. Denis A. Roy gave a candid talk on the systemic causes of overdiagnosis.

For the interactive workshops, participants were divided into groups of four to six people. Using the theoretical framework presented earlier, each vector was considered separately. Although they were interrelated, the discussions were aided by dealing with each vector separately. Using an electronic voting system, participants were invited to select the factor for each vector that they felt required priority action. The two factors with the most votes were retained.

Then, in groups, the participants were invited to identify concrete courses of action for each of the factors retained. Obviously, since the vectors are interrelated, the ideas frequently affected more than one vector and more than one factor.

To avoid having actions taken exclusively, we compiled the ideas and then categorized the themes. The results of the discussions and our analysis of them based on the major themes are presented in the next two sections.

What You Told Us

Participants at the first Québec Symposium on Overdiagnosis had an opportunity to voice their opinions on the priority factors for each of the four vectors of diagnosis inflation that were part of the theoretical model presented.

The following section summarizes the comments from participants on the two factors they felt were a priority for each of the vectors.

In the discussion paper submitted to participants prior to the symposium, the multidimensional and multifaceted nature of overdiagnosis was clearly mentioned. It should therefore not be surprising to find redundant elements in the ensuing comments. This predictable and unavoidable limitation will be addressed in the last section of this document that discusses the objectives and courses of action in terms of major themes rather than vectors.

Let us first review the main comments related to each of the vectors.

PATIENTS

"Patients" Vector

The "patients" vector groups the factors of diagnosis inflation related to the convictions, values and individual needs expressed by patients.

These factors include pressure from patients to have access to a test, treatment or prescription, and the deeply rooted certainty in many patients that a procedure or prescription is essential.

Access to online information is also a factor that worsens the pressure from patients. The fear of aging, perceived more as a disease than a normal, unavoidable process, plays a role as well. Finally, "just to be sure" is an expression that all doctors hear from their patients when it is time to decide on an intervention or assessment.

Because they are better informed, or at least more informed, patients have become real partners who, together with the professionals, contribute to developing their treatment plan and monitoring their health.

While the medical profession can only be pleased with this greater involvement from patients, it nevertheless comes with non-negligible adverse effects.

Patients expect some sort of intervention. Whether it is a request for a test, a referral to a specialist or a prescription, for most patients, this intervention is a sign of quality.

Physicians who do not act could be considered as not doing their work conscientiously.

Participants at the first Québec Symposium on Overdiagnosis retained the following two factors as a priority for the "patients" vector:

1. The certainty that a procedure or prescription is necessary.

2. Pressure to have access to a procedure or test.

PRIORITY FACTOR 1

The certainty that a procedure or prescription is necessary

The very first factor contributing to overdiagnosis and related to the "patients" vector involves the certainty of patients that a procedure or prescription is essential in order to improve their state of health.

According to the participants, this patient behaviour can be explained by "environmental" conditions.

Compensation

Compensation methods, especially a fee-for-service system, do not encourage professionals to take a patient management approach that allows for a frank, comprehensive discussion of the different options to treat a health problem.

It is impossible to outline a medical organization method that makes it possible to alleviate this problem. Whether they work in independant practices, a family medicine group or a walk-in clinic, physicians say that they do not have enough time.

Excerpt:

Answering patients' questions takes time. The current payment method encourages short appointments (fee-for-service), and it is faster to respond to a patient's request for a test or a prescription than it is to discuss the situation and better define the requests.

Accessibility

Related to this is the problem of accessibility. A vicious circle develops when patients face accessibility problems. The difficulty for patients to get a doctor's appointment, even when they have a family physician, influences their behaviour.

As soon as they have an appointment, they have many, not always rational, expectations and patients tend to insist on getting tests, procedures and prescriptions.

The accessibility problem therefore involves two aspects. On the one hand, access to a family physician is still problematic for many Quebecers. On the other, many patients who have a family physician have trouble getting an appointment in a timely manner because of various administrative practices. These problems exist in independent practices as well as family medicine groups.

Excerpt:

Access to rapid follow-up would be beneficial. When patients have to spend several hours in a waiting room or wait weeks or months to get an appointment, they want to solve EVERYTHING at the appointment, and want all the tests and all the prescriptions, because the idea of having to wait so long is difficult for them.

Doctor-patient relationship

The doctor-patient relationship is a recurring theme in each of the vectors.

Among the most frequent comments are the need to get loved ones involved in developing the treatment plan, and the importance of establishing a relationship of mutual trust between the patient and the doctor.

Excerpt:

It is necessary to ensure that the concept of patients as partners is understood by all the professionals on the health care team.

Information for patients and physicians

Many emphasized the need to make quality evidence-based information available for patients and physicians that respects the expertise and experience of the physician as well as the patient's will.

Educating patients through ads for the appropriate use of tests and procedures was also mentioned.

The extent of the task suggests that government intervention at the macro level would be essential to ensure the success of a campaign directed at the general public.

Also stated was the issue of the responsibility of the media, which have a tendency to marvel at "medical" breakthroughs without taking the resulting ethical questions into account.

Excerpt:
Educate journalists and other public broadcasters on communicating the probabilistic nature of research findings.

PRIORITY FACTOR 2

Pressure to have access to a procedure or test

The second priority factor for the "patients" vector is related to the pressure from patients, as well as their advocacy organizations, to have access to a procedure, test or medication.

Some solutions were suggested to tackle this problem.

Partnerships

As will also be seen in the other vectors, the notion of collaboration was frequently mentioned. Realistically managing the expectations of the population can only be done through a partnership between all the professionals and organizations in the health care system: professional associations, professional orders, medical federations, AQESSS, INESSS, CSSS and community organizations.

Support from the MSSS was also mentioned as essential; as well as collaboration with the media.

Intervention by an independent agency was also raised.

Excerpt:
Identify an agency that is not in conflict to act as a counterweight to overmedication (overdiagnosis and overtreatment) by contributing scientific, economic and human arguments.

Information for patients and physicians

Once again, participants expressed the need to have accurate, relevant information available, both for the population and for physicians.

In this regard, many said they would like to have a credible information site managed by an agency with no professional or financial interest.

Advertising conducted by the pharmaceutical industry was also singled out as a factor that favours, and even encourages pressure from patients on physicians to get a prescription.

Excerpt:
A "health guide" should be published and distributed to all the households in Québec. This guide could be something like the British Columbia handbook.

Doctor-patient relationship

The concept of establishing, or in some cases re-establishing, trust between patients and professionals was a recurring theme.

The communication strategy with patients would include training for physicians (including teaching physicians) to encourage discussions between doctors and their patients.

There was also mention of having health care professionals educate the population through combined communication strategies to transmit relevant information, appropriate use and statistics.

Excerpt:
Judge the relevance of the urgency. Explain it to the patient, take the time.

HEALTH CARE PROVIDERS

"Health Care Providers" Vector

The "health care providers" vector groups the factors of diagnosis inflation resulting from the values, attitudes and needs expressed by family physicians and specialists.

These factors include the use of certain hypersensitive tests in clinical situations that may not always be appropriate. There is also practising diagnosis by exclusion, an increasingly common expression to describe the propensity of many professionals to multiply tests and procedures in order to rule out any possibilities.

Physicians also tend to turn to different tests to make up for what they might perceive as a lack of knowledge or confidence. Another factor contributing to diagnosis inflation is related to the difficulty in making a conscious decision to not do anything – something **must** absolutely be done, be it starting a treatment or writing a prescription.

The spectacular development of medical imaging technologies over the last few decades has also contributed its share of adverse effects. Physicians prescribe medical imaging tests before conducting a full clinical assessment, or they prescribe imaging tests but do not provide complete clinical information, which can result in useless tests. Many physicians want to make 100% certain and confirm what is evident. "A picture is worth a thousand words."

Participants at the first Québec Symposium on Overdiagnosis retained the following two factors as a priority for the "health care providers" vector:

1. Diagnosis by exclusion – excluding all possibilities.
2. Using tests to make up for a lack of knowledge/confidence.

PRIORITY FACTOR 1

Diagnosis by exclusion – excluding all possibilities

Compensation

The participants emphasized the need to introduce incentives in compensation methods that would result in a greater propensity to take the time to do a proper, more detailed exam (questionnaire and physical exam).

The issue of compensation methods was stated frequently as a factor that encourages overdiagnosis. Many participants mentioned that fee-for-service favoured short appointments. In such circumstances, the physician is more easily tempted to end the appointment by requesting a test rather than engaging in a discussion with the patient about the appropriateness of a test, a consultation with a specialist or a prescription.

Participants wanted the possibility of introducing population-based responsibility, or capitation funding, to be looked into.

Excerpt:

Fee-for-service favours short appointments. The physician is more likely to want to end the appointment by requesting a test, rather than taking the time to explain why a test or other consultation is not necessary. This generates costs and anxiety, and favours the discovery of incidentaloma that start another cycle of assessment and inappropriate treatments.

Collaboration with peers

The possibility of comparing practice models (prescriptions, referrals, requests for tests, etc.) with peers, for the purpose of self-regulation and not control of the practice, was mentioned by many. This information is perceived as being able to promote reflection on the relevance of and changes to practices.

Developing decision support tools (integrated into EMRs) and improving communication channels between family physicians and specialists were also mentioned.

Excerpt:

Choosing Wisely for all specialties and a constant and comparative reassessment of practices.

University curriculum and teaching

Many mentioned a need to introduce the topic of overdiagnosis in the faculty of medicine curriculum. Create learning tools to assist in guiding clinical judgment.

Defensive medicine and risk management

Introducing a no-fault compensation system was often brought up as a measure to avoid defensive medicine. The notion of shared risk management based on finding a common ground with the patient was mentioned.

Introducing an assistance process adapted for physicians who have gone through a dramatic experience was suggested to avoid defensive medicine.

Excerpt:

To avoid defensive medicine, it is necessary to introduce a no-fault compensation system when there are medical complications, similar to the SAAQ [Québec motor vehicle bureau] and the CSST [Québec workmen's compensation commission].

Create tools to assist clinical judgment

Besides creating tools for care pathways, participants wanted to put the accent on clinical judgment throughout medical training. Promoting the creation of forums for exchange between family physicians and specialists, in particular for medical imaging, was also mentioned.

PRIORITY FACTOR 2

Using tests to make up for a lack of knowledge/ confidence

Tools to promote discussion between patients and physicians

Many participants would like to see the development of teaching tools to promote physician/patient discussion in order to explain the tests and understand why they are not always appropriate. The example of *Choosing Wisely* was often brought up.

Collaboration between peers

The suggestion to introduce local committees to oversee the appropriateness of diagnostic (and laboratory) tests in the CSSSs (health and social service centres) was endorsed by many participants. Promoting communication between peers to develop knowledge and optimize the use of suitable practices in order to focus on the appropriateness of prescribed procedures and tests was also mentioned.

Finally, many participants stated that collaboration between physicians should be encouraged, namely through peer mentoring.

Clinical decision support tools

Many suggested developing reference centres for "evidence-based medicine" (EBM) to support clinicians.

Developing teaching tools for clinicians that include the added value of each test was also discussed. These clinical decision support tools would be available through the electronic medical record. Being able to quickly confer with an experienced consultant (colleague, specialist or other professional) by Internet or telephone, as tried in British Columbia, is desired. The tools could be developed by INESSS.

Various methods exist to improve the knowledge and confidence of physicians. They include:

- knowing and recognizing one's limits;
- having discussions with colleagues;
- continuing professional development;
- using a forum of physicians on the Internet to resolve certain clinical questions;
- validating one's practices before writing a prescription.

The concept of what is not indicated can also be reinforced through the use of referral guidelines (e.g., guide by the Canadian Association of Radiologists).

Excerpt:

Teach the different health care professionals how to manage uncertainty, and to favour informed, shared decision-making processes.

CULTURE

"Culture" Vector

The "culture" vector groups the factors of diagnosis inflation related to behaviours that are strongly entrenched in medical culture.

The first factor could be summarized by the well-known expression "prevention is better than cure". The growing body of literature on overdiagnosis has clearly defined this adverse effect of associating an early diagnosis and treatment with the benefits of prevention. It is time to show more judgment when it comes to early diagnosis, especially when it applies to people who are in good health.

Professionals and organisations that are concerned with overdiagnosis are also looking at the influence of industry (pharmaceutical, among others). The practice of medicine based on evidence that is often determined under the vested interests of the industry is a major issue.

The other main factors associated with this vector are related to the fear of legal action, the medicalization of aging, media coverage surrounding the availability and "usefulness" of new technologies, and the judgment of some publications that promote new technologies and "rare cases".

Participants at the first Québec Symposium on Overdiagnosis retained the following two factors as a priority for the medical "culture" vector:

1. Evidence-based medicine, often determined under the vested interests of the industry.
2. "Prevention is better than cure." Associating early diagnosis and treatment with the benefits of prevention.

PRIORITY FACTOR 1

Evidence-based medicine, often determined under the vested interests of the industry

Information for patients and physicians

The participants mentioned the need to inform and educate the population and health care professionals on the role of the pharmaceutical industry and its influence on determining the normal thresholds used by physicians in the processes for establishing a diagnosis and treatment.

Transparency, ethics, impartiality

Participants would like to see a policy introduced so that all the practice guidelines, tools and information made available for professionals are developed by independent experts and are based on evidence. There should be a collaborative effort between all the independent organizations working on developing these tools.

All the clinical practice guidelines should be established and funded by neutral parties based on the highest assessment standards. Train physicians to properly understand, use and explain this evidence.

Excerpts:

Reduce the pressure to do and to produce, apply directives. Require more transparency and comparisons when it comes to pharmaceutical studies.

Ethical obligation to divulge ALL the risks of an intervention and the benefits of no intervention...

Teaching and medical training

Not surprisingly, the faculties of medicine will be directly concerned by this issue. Participants emphasized the need to reframe the real definition of EBM. Future physicians must be instilled with the importance of considering patient values when making decisions and not just evidence. These concepts must be incorporated into the training of students and residents, and into professional development programs set up for practising physicians.

Excerpt:
The faculties of medicine and the entire medical community must focus on the biopsychosocial needs of patients, in partnership with them.

PRIORITY FACTOR 2

"Prevention is better than cure." Associating early diagnosis and treatment with the benefits of prevention

Information for patients and physicians

The concept of prevention must be clarified for physicians in training and in practice, and for patients.

Screening programs

There should be greater knowledge of the benefits compared with the undesirable effects so that people who have been diagnosed early are not stigmatized and made more ill. A systematic approach to appropriateness should be adopted, along with an ongoing, open dialogue on the benefits and drawbacks.

INESSS should be called upon to get involved with developing a systematic approach for analyzing the appropriateness of screening programs.

Excerpts:
It's better to leave well enough alone.

Put prevention in the context of its purpose: what are the objectives? Increase longevity, the years of productive life, etc.

Patients are partners

Many participants wished to have tools to facilitate discussion when meeting with patients.

The concept of patients as partners was broached in terms of education and accountability. Two interesting examples were given: the "informed discharge" given to patients in exchange for a commitment to assess their state of health and seek care if needed; and the "just in case" prescription, or the possibility for patients to fill a prescription only if, in their opinion, their state of health requires it. In both cases, physicians must trust the judgment of their patients.

SYSTEM

"System" Vector

The "system" vector groups the factors of diagnosis inflation related to the health care policies dictated by politicians, the guidelines issued or suggested by the medical societies and the advocacy activities organized by patient advocacy groups.

There are many factors associated with this vector, and they are very important, if only for their very "structuring" nature.

Fingers are often pointed at information technologies because their limited deployment results in duplicated tests and procedures. Massive early screening campaigns are also a factor that prompts tests in healthy, asymptomatic clienteles without a family history.

Compensation methods as incentives for volume are also a factor often cited in the literature.

The other factors identified most often include referring to clinical practice guidelines rather than clinical judgment, and tests and procedures requested by other categories of professionals.

Participants at the first Québec Symposium on Overdiagnosis retained the following two factors as a priority for the medical "system" vector:

1. Massive early screening campaigns.
2. Compensation methods as incentives for volume.

PRIORITY FACTOR 1

Massive early screening campaigns

Participants' comments about massive early screening campaigns were numerous and harsh.

Although some of these comments are well intended, they are difficult to implement. For example, information campaigns limited to public health authorities, or those that would be limited to populations at risk.

Most of the comments could be summarized by the following two statements:

- Adopt messages that promote real discussions between patients and their physicians on the benefits and drawbacks of screening rather than campaigns that encourage passive participation by patients.

- Remove screening deemed not effective from public health insurance coverage.

Excerpts:

Prevent bureaucrats from creating such programs, give the attending physician and patient the choice to decide.

If we do a massive campaign, target the right test, for the right population, and take aspects that are not indicated into consideration. Advise the population of the adverse effects of early screening.

PRIORITY FACTOR 2

Compensation methods as incentives for volume

As discussed in the preceding sections, the issue of compensation methods is a central concern for participants. There seems to be a consensus that fee-for-service is an incentive that contributes largely to an increase in the volume of activities, but without necessarily contributing to improving the quality and appropriateness of these procedures.

A call for dialogue and collaboration is being sent to the medical federations and third-party payers to encourage the introduction of compensation methods that favour comprehensive patient management.

The Health and Welfare Commissioner could also contribute to assess the impact that fee-for-service compensation has on overdiagnosis.

Excerpts:

Is there a balance for family physicians between population-based funding and the per diem with a measure of the efficiency of the service offered?

No longer pay for primary care offered by specialists.

Action Plan

In this section we have grouped the comments made by the participants at the first Québec Symposium on Overdiagnosis into seven orientations, or major themes. Each orientation has objectives and courses of action. It goes without saying that several themes overlap. They will therefore not be repeated in more than one orientation.

The orientations are presented according to the priority they were given by all the participants at a consultation held after the symposium.

ORIENTATION 1
AWARENESS AND DISSEMINATING INFORMATION

Questioning the quality of decision-making in order to make a diagnosis is very delicate. It became apparent from the discussions at the first Québec Symposium on Overdiagnosis that overdiagnosis is not done in bad faith, but instead tends to stem from beliefs about the importance of screening for any sort of illness, from an acquired process of elimination in order to reach the correct diagnosis, or sometimes to satisfy a patient who wants to have a "clear understanding" by undergoing a lab test or medical imaging considered to be very sensitive and specific.

Prostate cancer screening is an example often cited to illustrate the dilemma faced by patients and physicians: to go ahead with screening or not when there is no consensus on a higher survival rate for patients diagnosed before the appearance of symptoms compared to others. In contrast, colon cancer screening is not controversial as its effectiveness has been proven when carried out according to known and accepted criteria.

How to make sure that all clinicians have the same knowledge of the situation and that their decision-making will be identical for a given situation? Patients and clinicians must be informed of the nature of the problem and, in particular, given an approach that allows them to make the right decision. For instance, the *American College of Surgeons* created an online surgical risk calculator[3] that assists patients, along with their surgeons, in deciding whether or not to undergo an intervention, taking into account the risks and appropriateness of the procedure and the patient's state of health.

This information, generated by a learned society, is a better guarantee for patients and physicians that the best decision will be made, based on scientific consensus and data resulting from concrete experience in a real situation.

Orientation 1 Action Plan
AWARENESS AND DISSEMINATING INFORMATION

Objectives
- Inform patients of the appropriateness of tests and procedures.
- Provide physicians with evidence-based information on the appropriateness of tests and procedures.

Actions
- With the help of resources specializing in medical practice and decision-making, develop tools to assist patients and physicians in making decisions.
- Make these tools available online.
- Develop a communication plan to inform patients and clinicians of the existence of these tools and how to use them.

[3] http://riskcalculator.facs.org/

ORIENTATION 2

DECISION-MAKING, JUDGMENT AND CLINICAL KNOWLEDGE

Decision-making is an important moment for physicians and patients alike. It cannot depend on characteristics that apply to all situations because there are many variables from patient to patient for the same type of problem. The 80/20 rule is often cited when talking about the percentage of patients who can react favourably to a treatment (80%), whereas the remainder may not respond as desired.

Two golden rules based on judgment and clinical knowledge should prevail in decision-making.

The first rule involves the diagnosis: How will the information provided by a specific test influence my decision? Consider the example of a young 26-year-old woman without risk factors, who feels "tightness" in her chest not related to exertion, but felt during a period of high stress. Compare this with a sedentary 63-year-old man who smokes, has constrictive retrosternal pain under exertion that radiates into the jaw, and nothing at rest. The predictive values for coronary heart disease are very high for its absence in the first case, and very high for its presence in the second case. Consequently, why request an exercise electrocardiogram to confirm the diagnosis? This is a legitimate question, especially in the first case when the presence of a "false" positive would result in a series of other tests to eliminate the diagnosis of coronary heart disease. Not counting the possible repercussions if this person tried to get an insurance policy.

The second rule concerns the tests and procedures: Is the decision I am making in the best and only interests of my patient? Is the patient clearly informed of the risks related to the planned procedure and are they lower than the expected benefits?

Orientation 2 Action Plan

DECISION-MAKING, JUDGMENT AND CLINICAL KNOWLEDGE

Objectives

- Make physicians and patients aware of the appropriateness of any decisions and the value added by any measures taken as a result.
- Validate and make accessible any information related to making a good clinical decision.

Actions

- Develop a reference centre for evidence-based clinical decision-making.
- Make this information and the decision support tools accessible.
- Encourage the creation of local channels to disseminate this knowledge and its application.
- Publish the best outcomes.

ORIENTATION 3

TEACHING AND PROFESSIONAL MEDICAL DEVELOPMENT

The training period for future physicians is the best time for teaching the concepts related to overdiagnosis and overtreatment, without counting those related to medical errors. The university curriculum should include clerkships dedicated specifically to these issues.

Training depends on the transmission of knowledge from the "supervisors" to their students or residents. That is why these training modules should also be offered systematically during professional medical development activities to correct shortcomings at their source.

Orientation 3 Action Plan

TEACHING AND PROFESSIONAL MEDICAL DEVELOPMENT

Objectives

- Make practising physicians more aware of the issue of overdiagnosis to encourage a transfer of knowledge adapted to this reality to future physicians.

Actions

- Add the topic of overdiagnosis to the faculty of medicine curriculum.
- Launch an awareness campaign along with professional medical development programs offered for practising physicians.

ORIENTATION 4

DOCTOR-PATIENT RELATIONSHIP

The doctor-patient relationship will evolve as the physician's role is redefined in the services offered and follow-up provided for patients. The chronic complex patient who has two or more chronic diseases requires more personalized primary care services and the help of an interdisciplinary approach. In this respect, physicians will see their role constructed around what they know how to do best: diagnose, treat and propose follow-up.

Patients give physicians a high degree of credibility for their knowledge and the appropriateness of their recommendations. However, patients discover another relationship, generally with nurses, through their better skills and abilities in teaching and following up on several concomitant health problems.

If physicians are better organized, they will have more time for their patients. They should develop their own listening skills to enable them to detect problems that would have gone unnoticed otherwise. For instance, patients' fear of certain recommended tests or procedures, or a lack of information that would allow them to make an informed decision.

Orientation 4 Action Plan

DOCTOR-PATIENT RELATIONSHIP

Objective

- Encourage discussion between physicians and patients on the appropriateness of tests and procedures.
- Encourage patient participation in making decisions related to their own treatment and follow-up plan in collaboration with their physician and, when necessary, with members of the interdisciplinary team.

Actions

- Create teaching tools to help physicians and patients discuss the appropriateness of tests and procedures.
- Create online decision support tools for patients and physicians.
- Develop ongoing training to help improve interpersonal skills.
- Create a permanent secretariat on the appropriateness of tests and procedures.

ORIENTATION 5

DEFENSIVE PRACTICE AND RISK MANAGEMENT

Defensive practice is observed primarily where the risk of legal action is very high. In Québec, this aspect is not really assessed and can be confused with the practice related to eliminating certain diagnoses when physicians proceed by differential diagnosis.

As for risk management, it is often limited to managing certain hospital risks such as preventing falls among elderly patients, preventing acquired infections, etc. The idea that an avoidable complication, including death, is part of risk management is not ingrained in the medical and hospital culture. Nevertheless, the aspect of avoidable complications is very significant and widely documented, at least in the US.

Standardizing practices validated using care pathways is a recognized method to reduce variations in professional practices, and consequently improve the quality of care and services.

Orientation 5 Action Plan

DEFENSIVE PRACTICE AND RISK MANAGEMENT

Objectives

- Assess the significance of defensive practice in Québec and describe it.
- Introduce a risk management culture, namely for avoidable complications, in care episodes.

Actions

- Ask the Health and Welfare Commissioner to study the aspect of defensive practice.
- Encourage the deployment of care pathways for following up on patients with one or more complex chronic diseases (40% of the adult population).
- Computerize the care pathways in order to better coordinate the services and collect data to measure, analyse and adapt the health care services and identify the risks.

ORIENTATION 6
COMPENSATION METHODS

The prevalent compensation method, which is fee-for-service, favours productivity, other things being equal. There are no real incentives in this compensation method to achieve precise quality and appropriateness targets. Many organizations have attempted to introduce terms that specifically target these objectives. The finding is that a perfect compensation method does not exist.

The UK introduced a compensation method focused on reaching certain results, but it seems that the criteria or measurement for achieving the objectives were not high enough, as a large majority of physicians were able to achieve them without much difficulty.

The best US health care systems, which are the *Veterans Health Administration* (VHA) and *Kaiser Permanente*, pay their physicians a salary, augmented by bonuses when objectives are reached. These bonuses are primarily collective. It was also noticed in these organizations that disseminating information on the results obtained is highly encouraged and common practice.

Sharing the decision-making among members of the interdisciplinary team – including the physician – on the one hand, and patients and their loved ones on the other, is certainly a way to ensure better decision-making. This way, making a decision is not the sole responsibility of a single individual, regardless of how competent that person is, but a combination of expertise.

The compensation method should therefore encourage teamwork and not always require an individual consultation between physicians and their patients.

Orientation 6 Action Plan
COMPENSATION METHODS

Objective
- Ensure that the compensation method encourages teamwork and achieving appropriateness and quality targets.

Actions
- Clearly identify the purpose to be achieved by adapting compensation methods.
- Organize a specific activity, open to all, to discuss the issue.
- Ensure that the negotiating parties take part in this activity.

ORIENTATION 7
PREVENTION AND SCREENING PROGRAM

The challenge posed by screening, in terms of overdiagnosis, is precisely to avoid inappropriate screening. The question is arising more and more often with the emergence of genetic screening capabilities that do not screen for the presence of a disease, but the probability of its occurrence. We also discussed the issue of early screening for certain diseases for which premature discovery would not really have an effect on a patient's survival.

Sometimes the risks related to screening tests are greater than the expected benefits because of the start of early treatment. There are no simple answer to this question. For instance, how to counter an individual's desire to undergo certain screening tests that, from a population perspective, have not shown to be effective, or for which the harmful effects are greater than the beneficial effects?

Prevention raises less controversy, but it also requires educational measures for the public, and even health care professionals. Changing poor lifestyle habits into healthy ones is an action to recommend; however, in most cases this is not a curative approach, but rather a way to reduce the risk of the occurrence of a disease or a way to control the development of a pathological condition such as the occurrence of a complication.

Orientation 7 Action Plan
PREVENTION AND SCREENING PROGRAM

Objectives
- Develop a systematic approach for the appropriateness of screening programs.
- Develop a better understanding of the benefits and drawbacks of screening programs.

Actions
- Approach INESSS to create information tools on the purpose of screening and prevention programs.
- Provide accessible tools for the predictive values, percentage of susceptibility and specificity of the different tests available.

Conclusion

The multidimensional and multifaceted nature of overdiagnosis has been raised frequently. Clearly, and this becomes evident upon reading this document, the strategies intended to neutralize overdiagnosis and its adverse effects on the quality and accessibility of health care must aim at a set of targets.

In these circumstances, a discussion between all the organizations working in health care is essential. Although this issue concerns primarily the medical profession, the proposed solutions are so structuring that all partners must be included.

Some actions can be echoed at local or regional levels, such as setting up appropriateness committees. But it is clear that combating overdiagnosis and overtreatment requires central authorities to acknowledge the issue and show a clear desire to tackle it.

The first Québec Symposium on Overdiagnosis and the launch of the *Choisir avec soin* campaign (the French counterpart of the *Choosing Wisely* campaign in Canada) generated considerable interest in the media and among the public. Québec's mass media, both written and electronic, have become interested in the issue and requested numerous interviews in the wake of these two events. This topic was even mentioned in an article on the Web site of Agence Science Presse. *L'Actualité médicale* also devoted an in-depth article to the symposium and the *Choisir avec soin* campaign.

Interest persists and continues to fuel the reflections of editorial writers, columnists, journalists and physicians.

[Translation] "Lastly, the APTS [Alliance of Professional and Technical Staff] invites Québec to review the relevance of certain tests, to determine whether they are appropriate, or are being duplicated. […] The Québec Medical Association recently held a symposium on Overdiagnosis and launched a campaign to encourage physicians to choose wisely the tests they prescribe."

- Amélie Daoust-Boisvert, journalist, *Le Devoir*, May 8, 2014

[Translation] "Also in the same system, the Québec Medical Association estimates that it would be possible to save $5 billion per year if physicians contained their tendency to prescribe too many drugs and tests that are not always necessary. The Association also judges that between 18% and 37% of total health care spending can be attributed to costs related to the non-quality of care."

- Brigitte Breton, editorial writer, *Le Soleil*, May 12, 2014

[Translation] "10%: these are the savings that 45 recommendations regarding useless tests and prescriptions in the US would generate, according to a campaign launched by nine medical societies and one consumer association. The Choosing Wisely *campaign launched in late winter could reduce medical spending by US $250 billion per year."*

- Mathieu Perreault, journaliste, *La Presse*, 12 mai 2014

[Translation] "Overdiagnosis is essentially prescribing useless tests or drugs that inflate the bill for the system without affecting the outcome. It represents 9% to 18% of the health budget (not counting medical services), or $2.3 to $4.7 billion, according to the QMA. […] However, the issue of overdiagnosis is sufficiently worrisome for the global medical community to be looking at this costly problem."

- Francis Vailles, chroniqueur, *La Presse*, 21 mai 2014

[Translation] "To cover these services, several solutions that could lower these costs were proposed, such as reducing the cost of drugs, especially generic ones, for which Québec pays more than the other Canadian provinces. In the spirit of the Québec Medical Association's Choisir avec soin *campaign, we must go even further and question the use of numerous interventions and drugs with uncertain and doubtful usefulness."*

- David Lussier – MD, FRCPC, Geriatrician, Institut universitaire de gériatrie de Montréal, Letter to the Editor published in *Le Devoir*, June 18, 2014

The Québec Medical Association is maintaining its leadership regarding this issue and continues to receive requests from the media for reference purposes. It will pursue its efforts to increase awareness of this crucial issue among members of the medical profession, the general public that uses the health care services, and all its partners in the health care system, to ensure the sustainability of our system.

This report is available in an electronic version on the Québec Medical Association's website: amq.ca