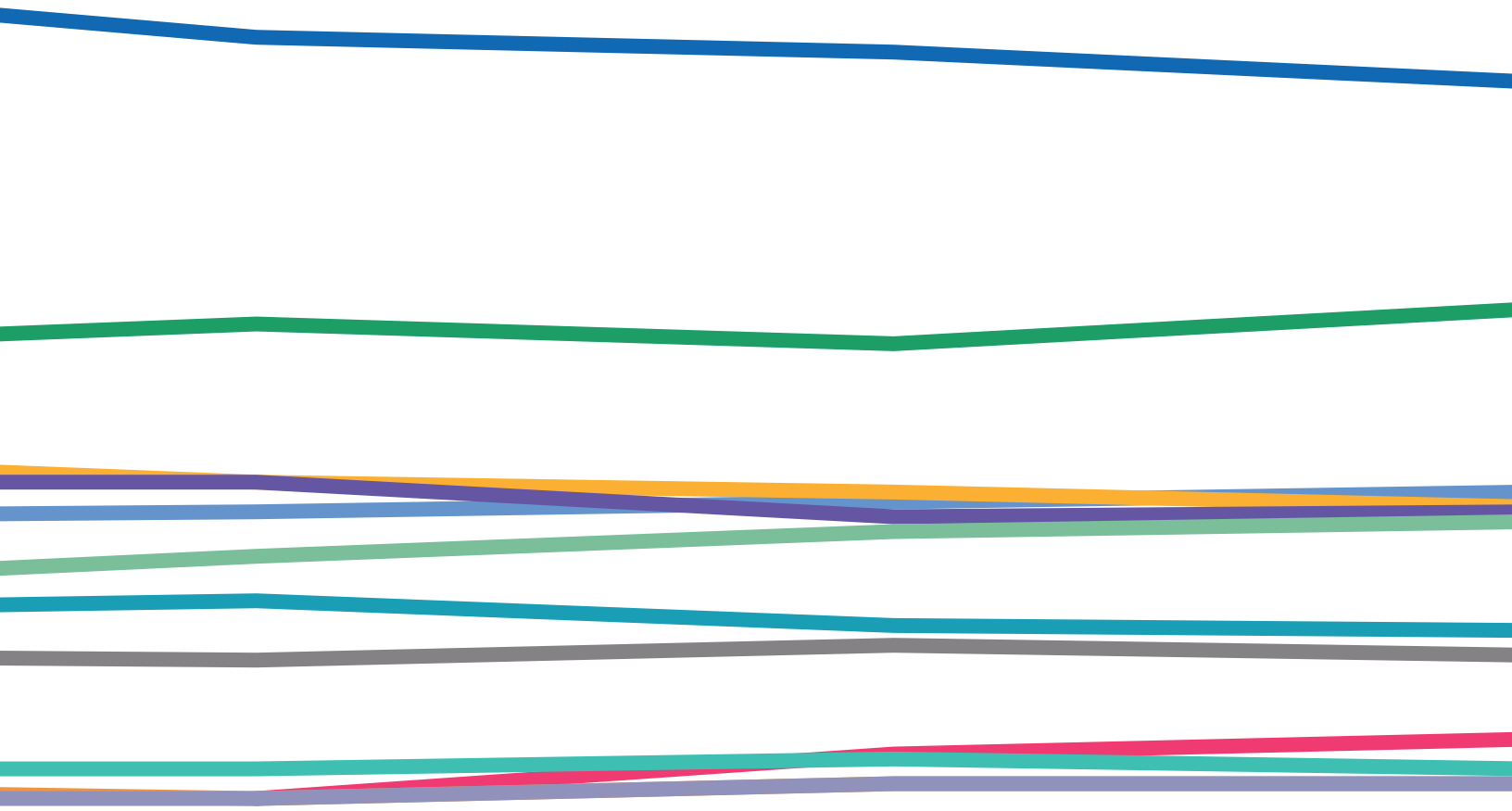
HIROC



2020
Top Healthcare Risks

Fifth Annual Report on a Shared Canadian System for Integrated Risk Management

Publication Note: With our Subscribers focused on managing the spread of COVID-19 in their communities, the release of this year's report was shifted from spring to fall 2020. In order to maintain the integrity of dates, we are still reporting on data up to the end of 2019. As such, there is no mention of COVID-19 in this report.

September 2020

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Executive Summary

HIROC's Integrated Risk Management (IRM) program, which includes the Risk Register application, is now in its fifth year. The program has seen widespread adoption, together with the development of a robust and expanding database of tracked risks of the Canadian healthcare system.

Since its launch in January 2015, 136 HIROC Subscribers have signed on to the Risk Register (available at no cost to all HIROC Subscribers), of which 73 organizations are from an acute-care setting, and 63 organizations are from the non-acute care setting. At the end of 2019, the Risk Register has helped HIROC Subscribers track 3,794 organizational risks.

This report supports HIROC Subscribers in advancing or starting their IRM journey, by aggregating five years' worth of Subscriber data and providing insight on how peer organizations are monitoring and measuring risks across Canada—new tracked risks and emerging themes. This report complements HIROC's Risk Ranking and Risk Assessment Checklists program—both based on claims reporting data—to support an organization's risk identification process to create a summary of the most significant risks. The Risk Register will continue to yield shared knowledge to improve the management of key risks and help in the achievement of strategic objectives across the healthcare system. Pan-Canadian results from the first five years of implementation are provided.

Highlights

The tracked risks on the Risk Register show an emphasis on risks related to patient safety and staff—*Care* and *Human Resources* risk categories account for 43% of tracked risks.

While there is a fair degree of consistency over the years in terms of which risks are being tracked across all organizations, there are noticeable shifts in the trends of the top 10 risks rated by likelihood and impact. About half of these tracked risks were not in the top 10 in the 2019 report and are new or re-entries to the top 10 this year, such as:

Physical space constraints is a new risk added in 2019 to the IRM taxonomy. It was part of the top 10 risks for likelihood and impact for acute care organizations, however, it was not a risk identified and tracked by non-acute care organizations.

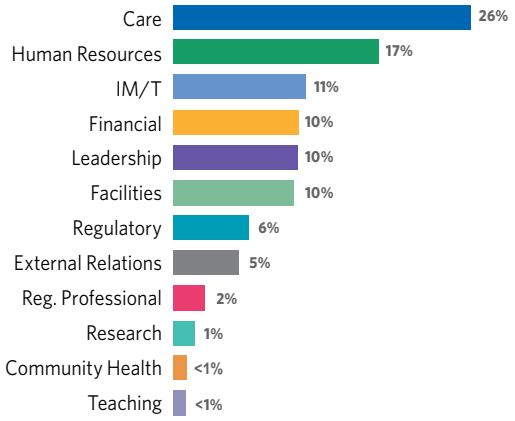
Birth trauma emerged as the top risk by impact for acute care organizations for the first time.

Supply shortages ranked first in the likelihood ranking for non-acute care organizations for the first time.

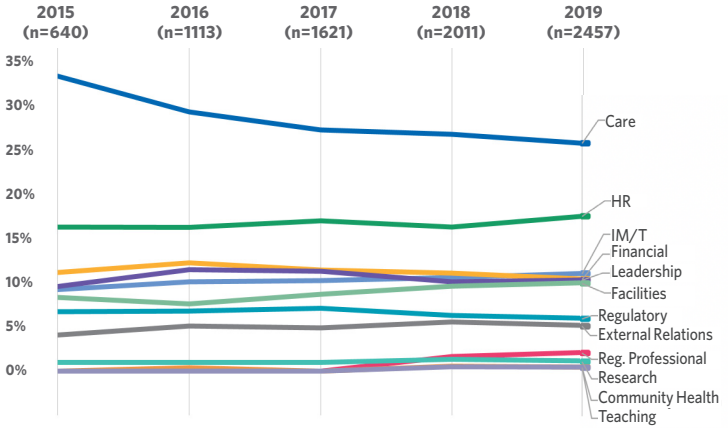
SNAPSHOT

Top Healthcare Risks: All Organizations

Distribution of Risk Register 2019 tracked risks by *strategic objective category*



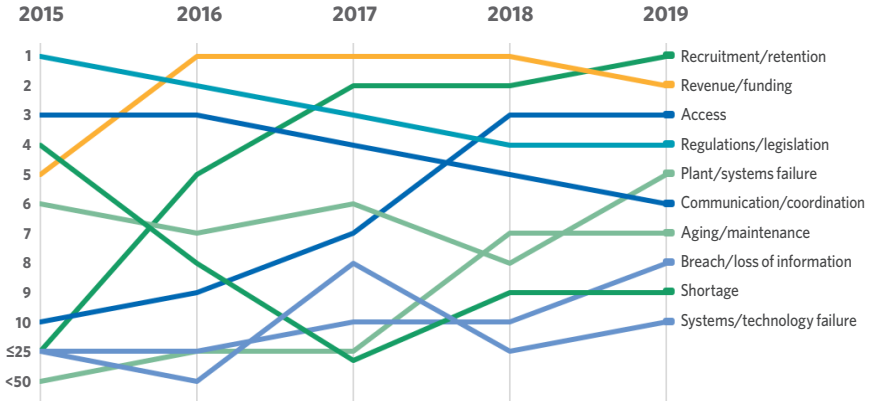
Five-year trend of distribution of Risk Register tracked risks by *strategic objective category*



Top 10 Risk Register 2019 tracked risks by *frequency*

#	Category	Risk
1	HR	Recruitment/retention
2	Financial	Revenue/funding
3	Care	Access
4	Reg. Professional	Regulations/legislation
5	Facilities	Plant/systems failure
6	Care	Communication/coordination
7	Facilities	Aging/maintenance
8	IM/T	Breach/loss of information
9	HR	Shortage
10	IM/T	Systems/technology failure

Trend of top 10 ranking by *frequency* of Risk Register tracked risks



Top 10 Risk Register 2019 tracked risks by *likelihood*

#	Category	Risk
1	Care	Acuity
2	Facilities	Physical space constraints
3	HR	Psychological injuries
4	IM/T	Biomedical technology needs
5	Care	Access
6	HR	Benefits/overtime
7	HR	Recruitment/retention
8	Care	Supply shortages
9	Leadership	Politics
10	Research	Funding (research)

Top 10 Risk Register 2019 tracked risks by *impact*

#	Category	Risk
1	Care	Birth trauma
2	Care	Abduction
3	Care	Death by suicide/self-harm
4	Care	Diagnostic errors
5	IM/T	Biomedical technology needs
6	Facilities	Physical space constraints
7	Care	Discharge/transitions
8	Care	Pressure injuries
9	Financial	Revenue/funding
10	Care	Acuity

Top 10 Risk Register 2019 tracked risks by *rating*

#	Category	Risk
1	Care	Acuity
2	IM/T	Biomedical technology needs
3	Facilities	Physical space constraints
4	Care	Birth trauma
5	HR	Psychological injuries
6	Care	Diagnostic errors
7	Care	Access
8	Financial	Revenue/funding
9	HR	Recruitment/retention
10	Care	Discharge/transitions

Introduction

Integrated Risk Management

Management and oversight of key organizational risks is a critical function for healthcare leaders and governing boards. Leadership teams must be proactive to identify and manage risks versus being reactive, considering the frequent accounts of unintended patient and staff harm, as well as other disruptions leading to financial, reputational, and facility loses (e.g. aging buildings, systems failures). Consequences of ineffective management of risks range from underperformance to catastrophic failures (Caldwell, 2012). Safety monitoring is critical and does not receive sufficient recognition (Vincent, Burnett, & Carthey, 2013) in healthcare organizations. Empowering, and devolving responsibility for the development and monitoring of safety metrics is essential (Vincent, Burnett, & Carthey, 2013) to build the presence of safety within an organization. Integrated Risk Management (IRM) provides a framework for prioritizing very different types of risks from across an organization. The goal is to create a concise summary of the most significant risks and to identify whether further work is required to bring these risks to acceptable levels (Stevens, Willcox, & Borovoy, 2019).

IRM program

HIROC brought together a national steering committee of leading healthcare organizations across sectors to co-create a standardized, evidence-based, effective, and efficient approach to IRM. Our IRM program promotes alignment to best practices and facilitates collation of risk management information from multiple healthcare organizations across the country. The primary goal of the program is to accelerate IRM in Canadian healthcare organizations and support the effective management and monitoring of risks. The key components of our IRM program include:

1. Evidence-based best practice guide and resources
2. Common taxonomy of key risks in healthcare organizations
3. Shared, electronic application (Risk Register)

IRM best practices

For the past five years, the following IRM implementation recommendations have stood out:

1. Create investment with board risk governance and senior leadership ownership
2. Prioritize risks to patients and staff
3. Align risks to strategic objectives wherever possible
4. Keep it simple

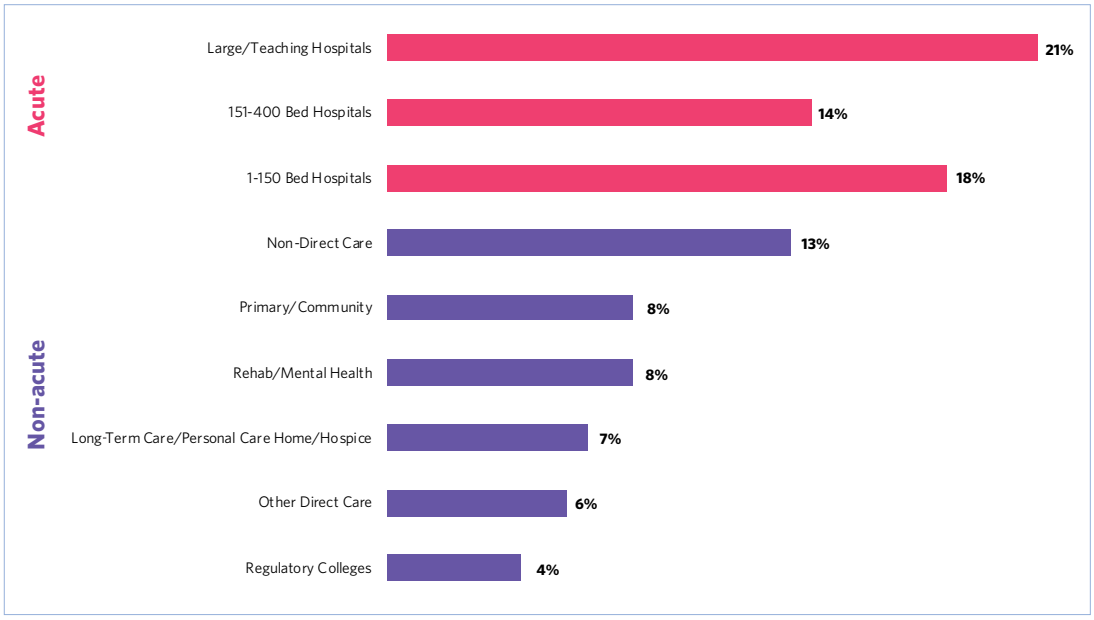
Appendix A – IRM Best Practices, expands on these four key recommendations.

Risk Register uptake

Since its launch in January 2015, 136 organizations have signed on to the Risk Register, of which 73 organizations are from an acute-care setting, and 63 organizations are from the non-acute care setting. At the end of 2019, 3,794 risks were entered into the Risk Register, on average 18 risks per organization.

Introduction

***Figure 1**. Risk Register active participants by peer group (n=136)*



Benefits

The use of the Risk Register application reduces the cost and risks of maintaining self-grown solutions (e.g. traditional spreadsheet applications). It provides for standardization across an organization on classifications of risks. HIROC maintains, administers the use of, and safeguards the data of the Risk Register application at no additional cost to its Subscribers, as well as provides support and guidance on the use and implementation of the application and IRM methodologies.

Appendix B outlines our standardized on-boarding and implementation process.

One of the key benefits of the Risk Register is the collection and analysis of risk management information from across Canada. To further advance the sharing of collective knowledge amongst healthcare organizations, HIROC aggregates and summarizes—for the top tracked risks—the key controls, mitigation strategies, and monitoring activities inputted by Risk Register participants as Risk Profiles (see **Appendix C** for a list of all Risk Profiles available at www.HIROC.com).

Data Analysis Methodology

Methodology

Risk Register participants assess risks using likelihood and impact, following a common scoring matrix (**Appendix D**). The data analysis in this report aggregates all tracked open risks until December 2019 using these two parameters, as well as frequency of occurrence, and risk rating. In this report, the analysis includes ranking trends of the top 10 tracked open risks by all four parameters—likelihood, impact, frequency, and risk rating—over the past five years.

The *frequency* ranking is based on how often a risk is tracked in the Risk Register, i.e. number of entries. The *likelihood* and *impact* rankings are based on the average of the assigned scores in the registry. Similarly, the *rating* ranking is based on the average of the multiplication of *likelihood* and *impact* scores across entries. *Likelihood*, *impact*, and *rating* rankings compare risks against other risks, without accounting for the frequency of each risk.

Ranking position for a particular risk is determined by its calculated score, and how it compares to the scores of other risks. As such, a change in ranking positions for a risk may occur due to other risk scores changing. For example, we may observe a risk dropping from first to fifth in the likelihood ranking with no change to their likelihood score. Additionally, the closing of risks—excluded from the analysis—has an effect on the calculated scores and rankings.

Trend plots

These plots illustrate the ranking history of the 2019 top 10 risks for each parameter. To have an accurate representation of trends over time the actual ranking value for each year of a particular risk is included. To optimize readability, not all ranking values on the vertical axis are shown. As such, rankings 11 and above are grouped together into four groups:

- ≤25 – ranks between 11 and 25
- ≤50 – ranks between 26 and 50
- ≤75 – ranks between 51 and 75
- >75 – ranks greater than 75

Appendix F, **Appendix G**, and **Appendix H** present all open risks tracked in the Risk Register for all organizations, acute care organizations, and non-acute care organizations. Risks are listed by frequency of occurrence within each risk category.

Data privacy

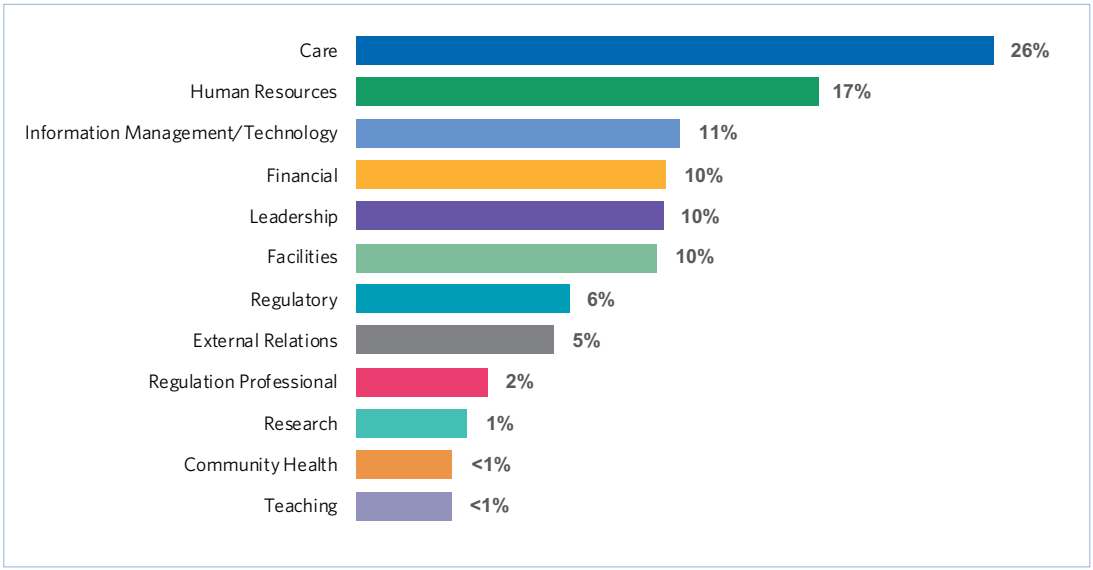
All data is aggregated and anonymized prior to publication. To address confidentiality and privacy, risks submitted by less than five organizations or tracked less than five times in the database were excluded from the data analysis.

Top Healthcare Risks: All Organizations

Risks by ***strategic objective category***

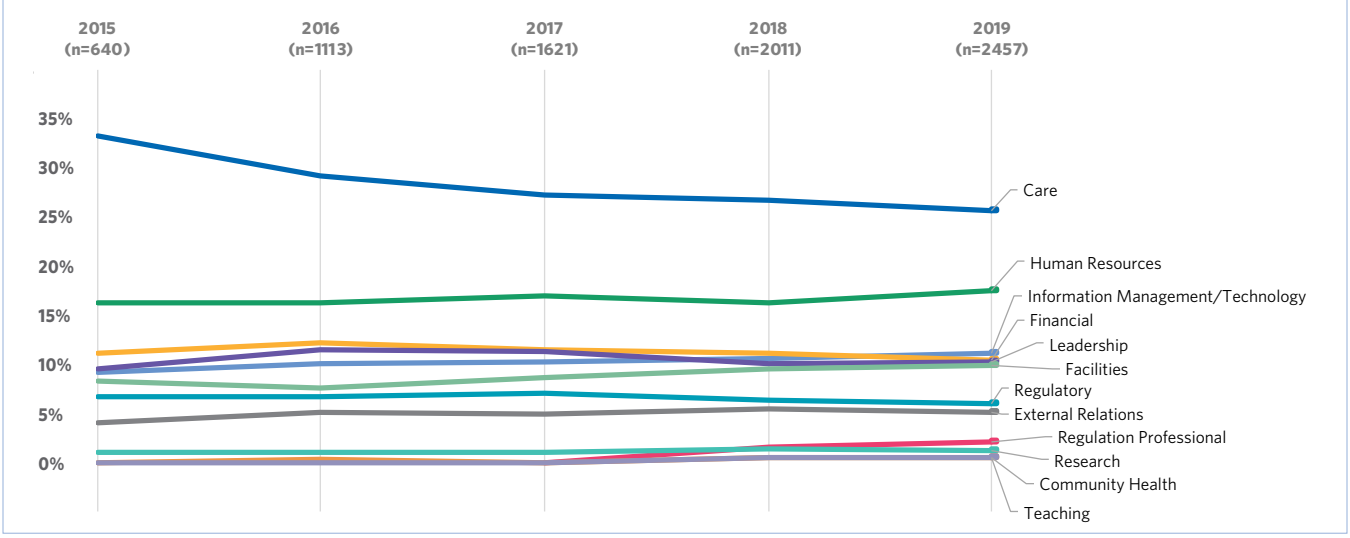
Eighty-four per cent of tracked risks across all 136 participating organizations can be clustered into two main groups: risks related 1) to people, and 2) to organizational infrastructure. *Care* and *Human Resources* risks account for 43% of tracked open risks in the system. The following 41% of risks belong to either *Information Management/Technology, Financial, Leadership*, or *Facilities* risk categories.

Figure 2**. Distribution of Risk Register tracked risks by **strategic objective category



The ranking of risk categories are consistent over the past five years. There has been a decrease in the proportion of risks tracked under the *Care* risk category from 33% in 2015 to 26% in 2019. *Human Resources* tracked risks have increased over the last two years. There have been slight shifts in ranking of *Information Management/Technology, Financial,* and *Leadership* risk categories.

Figure 3**. Trend of distribution of Risk Register tracked risks by **strategic objective category



Top Healthcare Risks: All Organizations

Risks by ***frequency***

Over the last three years, there has been limited change on which open risks are the most tracked in the Risk Register. We continue to see nine most frequent risks from 2018 in the 2019 top risks. The top four risks based on frequency for 2019 remain as in 2018: *recruitment/retention, revenue/funding, access,* and *regulations/legislation.*

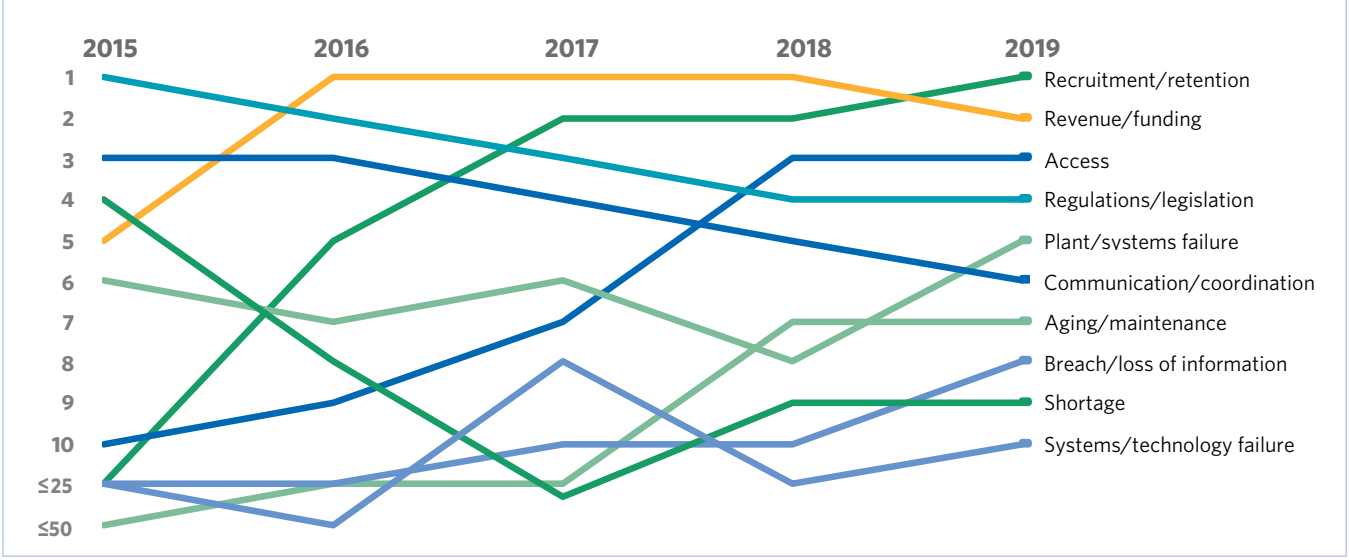
There appears to have been a change in focus for two *Human Resources* tracked risks: *recruitment/retention* and staff *shortage*. *Access* risks also show an upward trend over the last five years. *Revenue/funding* continues to be a frequently-tracked risk.

Appendix F provides a summary of all open risks tracked in the Risk Register for all organizations. Risks are listed by frequency of occurrence within each risk category.

Table 1*. Top 10 Risk Register 2019 tracked risk by* ***frequency***

Rank	Category	Risk
1	HR	Recruitment/retention
2	Financial	Revenue/funding
3	Care	Access
4	Regulation Professional	Regulations/legislation
5	Facilities	Plant/systems failure
6	Care	Communication/coordination
7	Facilities	Aging/maintenance
8	IM/T	Breach/loss of information
9	HR	Shortage
10	IM/T	Systems/technology failure

Figure 4*. Trend of top 10 ranking by* ***frequency*** *of Risk Register tracked risks*



Top Healthcare Risks: All Organizations

Risks by ***likelihood***

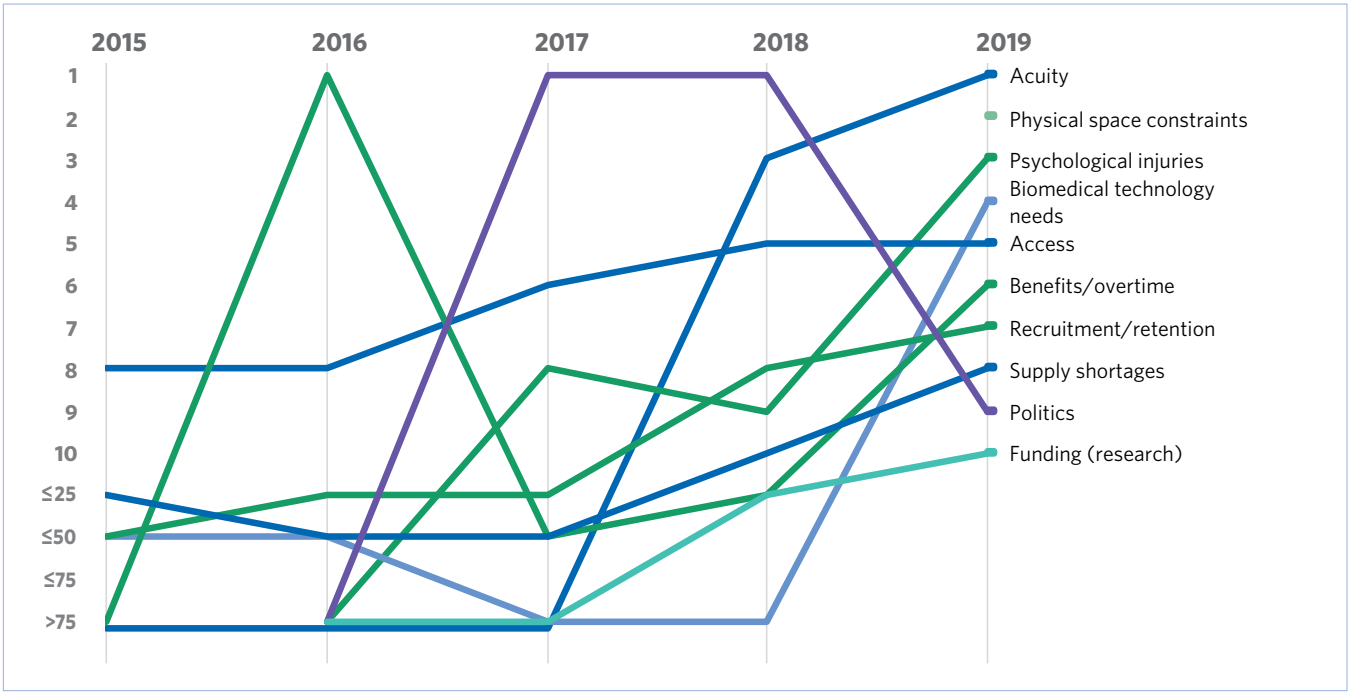
We observed movement in the top 10 ranking by likelihood over the last year. Four top risks from 2018—*length of stay, leadership-alignment acute/non-acute, patient falls,* and *discharge/transitions*—were replaced with *Care* risks from six risks in 2018 to three in 2019.

Acuity has had an upward trend over the last couple of years, ranking first based on likelihood score in 2019. *Physical space constraints* was added to the taxonomy in 2019 and ranked second. Three *Human Resources* risks ranked higher compared to 2018, particularly *psychological injuries* and *benefits/overtime* risks.

Table 2**. Top 10 Risk Register 2019 tracked risk by **likelihood

Rank	Category	Risk
1	Care	Acuity
2	Facilities	Physical space constraints
3	HR	Psychological injuries
4	IM/T	Biomedical technology needs
5	Care	Access
6	HR	Benefits/overtime
7	HR	Recruitment/retention
8	Care	Supply shortages
9	Leadership	Politics
10	Research	Funding (research)

***Figure 5**. Trend of top 10 ranking by **likelihood** of Risk Register tracked risks*



Top Healthcare Risks: All Organizations

Risks by *impact*

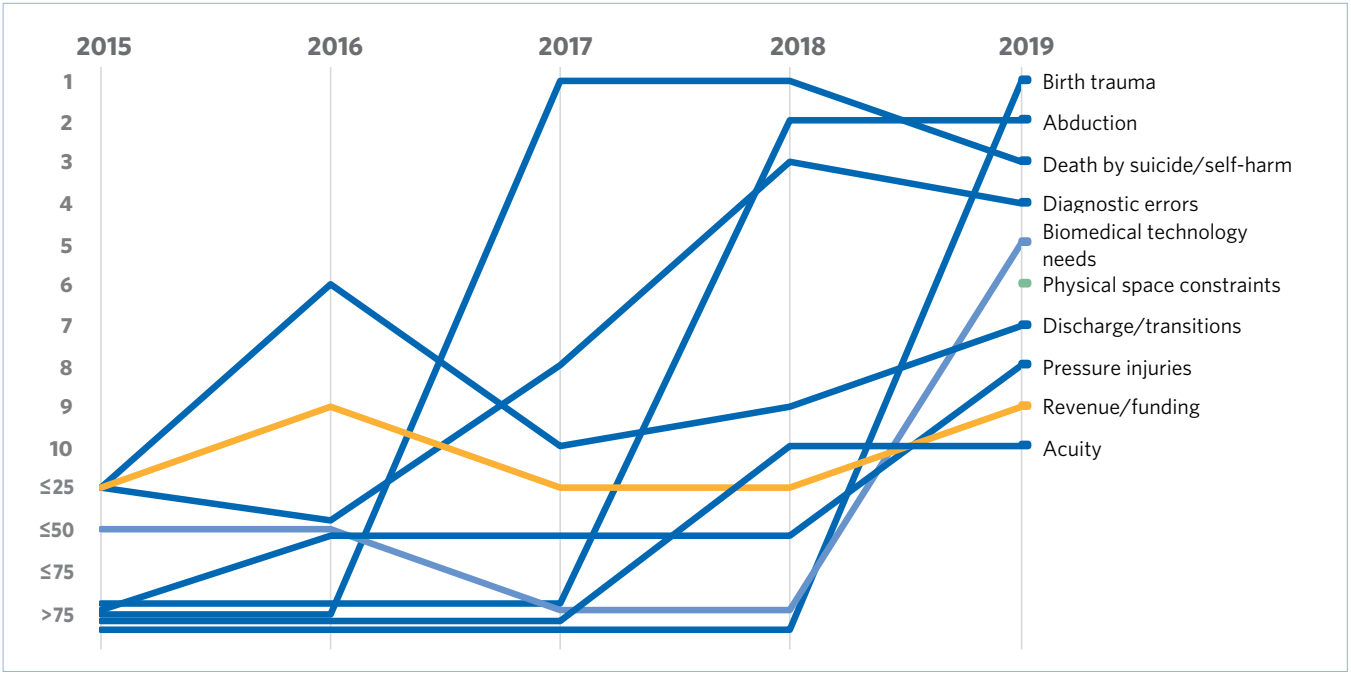
We also observed movement on the top 10 risks by impact compared to the previous years. Five risks from the previous year were replaced—*multi-incident, patient falls, biomedical technology failure, breach/loss of information,* and *access.*

Although risks ranked in the top 10 have changed year-to-year, *Care* risks are predominant in the top 10 ranking for the last three years (seven risks in 2017, eight risks in 2018), and continue to lead the top 10 ranking in 2019 (seven risks in 2019). This year's top four risks are all related to *Care*, with two related to maternal/neonate risks. This is in alignment with our most significant reported claims.

Table 3**. Top 10 Risk Register 2019 tracked risk by **impact

Rank	Category	Risk
1	Care	Birth trauma
2	Care	Abduction
3	Care	Death by suicide/self-harm
4	Care	Diagnostic errors
5	IM/T	Biomedical technology needs
6	Facilities	Physical space constraints
7	Care	Discharge/transitions
8	Care	Pressure injuries
9	Financial	Revenue/funding
10	Care	Acuity

***Figure 6**. Trend of top 10 ranking by **impact** of Risk Register tracked risks*



Top Healthcare Risks: All Organizations

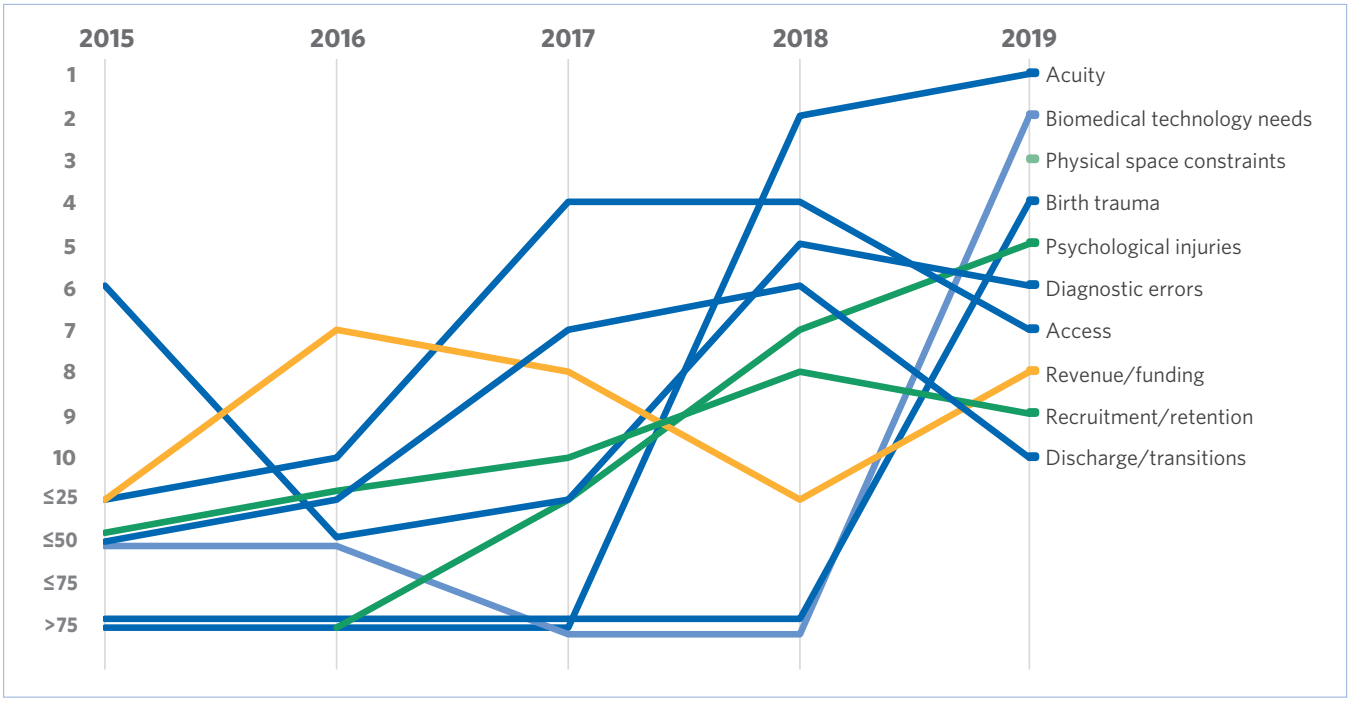
Risks by ***rating***

Movement on the likelihood and impact rankings affects the rating ranking. As such, several of the top 10 risks from previous years have been displaced, explaining the introduction of *biomedical technology needs, physical space constraints,* and *birth trauma* to the top 10 by rating.

Table 4*. Top 10 Risk Register 2019 tracked risk by* ***rating***

Rank	Category	Risk
1	Care	Acuity
2	IM/T	Biomedical technology needs
3	Facilities	Physical space constraints
4	Care	Birth trauma
5	HR	Psychological injuries
6	Care	Diagnostic errors
7	Care	Access
8	Financial	Revenue/funding
9	HR	Recruitment/retention
10	Care	Discharge/transitions

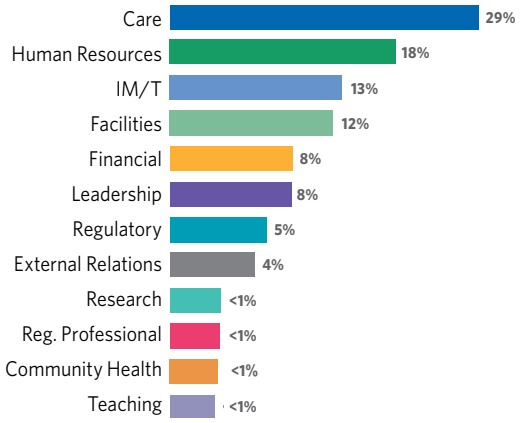
Figure 7*. Trend of top 10 ranking by* ***rating*** *of Risk Register tracked risks*



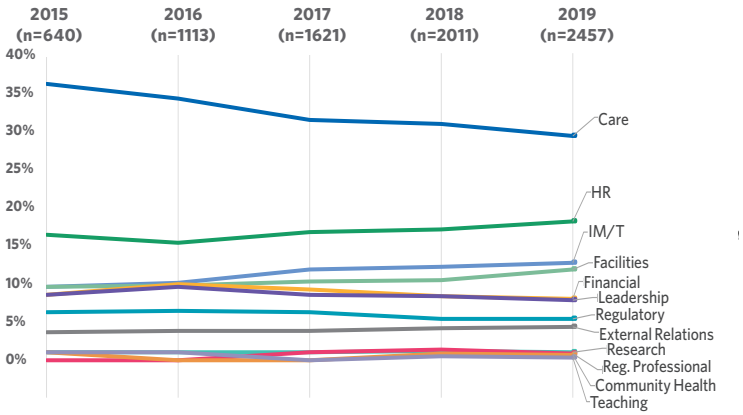
SNAPSHOT

Top Healthcare Risks: Acute Care

Distribution of Risk Register 2019 tracked risks by *strategic objective category*



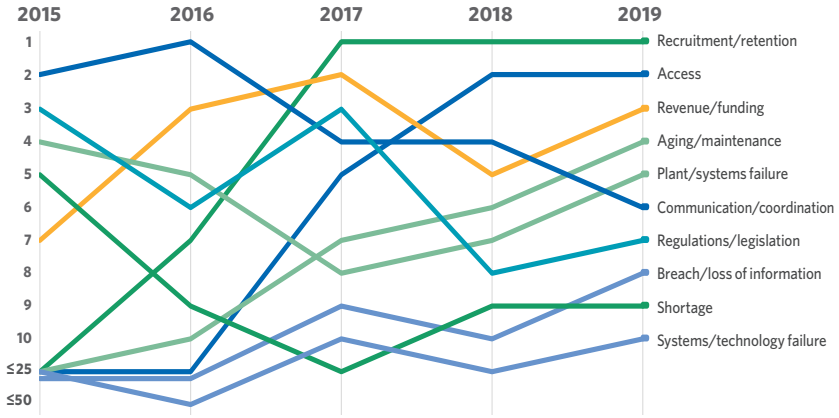
Five-year trend of distribution of Risk Register tracked risks by *strategic objective category*



Top 10 Risk Register 2019 tracked risks by *frequency*

#	Category	Risk
1	HR	Recruitment/retention
2	Care	Access
3	Financial	Revenue/funding
4	Facilities	Aging/maintenance
5	Facilities	Plant/systems failure
6	Care	Communication/coordination
7	Reg. Professional	Regulations/legislation
8	IM/T	Breach/loss of information
9	HR	Shortage
10	IM/T	Systems/technology failure

Trend of top 10 ranking by *frequency* of Risk Register tracked risks



Top 10 Risk Register 2019 tracked risks by *likelihood*

#	Category	Risk
1	HR	Psychological injuries
2	Financial	Costs
3	HR	Benefits/overtime
4	Care	Acuity
5	HR	Physical injuries
6	Facilities	Physical space constraints
7	HR	Recruitment/retention
8	HR	Violence/disruptive
9	Care	Access
10	HR	Engagement

Top 10 Risk Register 2019 tracked risks by *impact*

#	Category	Risk
1	Care	Birth trauma
2	Care	Death by suicide/self-harm
3	Care	Wrong patient/site
4	Care	Diagnostic errors
5	IM/T	Biomedical technology needs
6	Financial	Revenue/funding
7	HR	Psychological injuries
8	Facilities	Physical space constraints
9	Care	Monitoring
10	Care	Discharge/transitions

Top 10 Risk Register 2019 tracked risks by *rating*

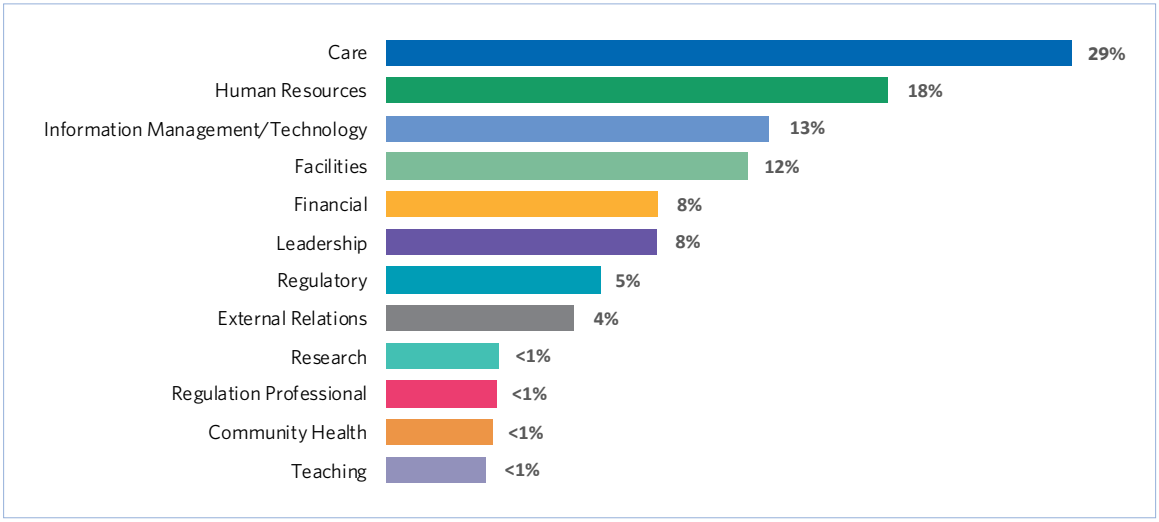
#	Category	Risk
1	HR	Psychological injuries
2	Financial	Costs
3	Care	Acuity
4	Facilities	Physical space constraints
5	Financial	Revenue/funding
6	IM/T	Biomedical technology needs
7	Care	Birth trauma
8	Care	Access
9	HR	Recruitment/retention
10	Care	Diagnostic errors

Top Healthcare Risks: Acute Care

Risks by ***strategic objective category***

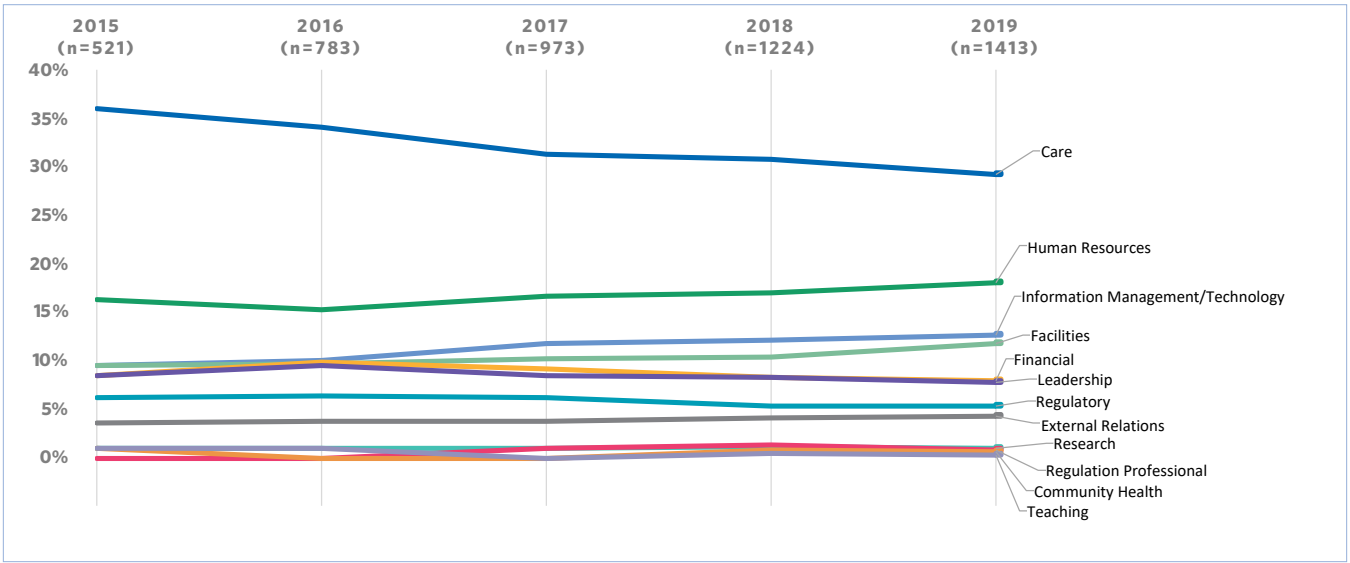
Eighty-eight per cent of tracked risks across acute care organizations can be clustered into two main groups: risks related 1) to people, and 2) to organizational infrastructure. *Care* and *Human Resources* related risks are predominant and account for 47% of tracked open risks in the system. The following 41% of risks belong to either *Information Management/Technology, Facilities, Financial or Leadership* risk categories.

Figure 8**. Distribution of Risk Register tracked risks by **strategic objective category



The ranking of risk categories has been consistent over the last five years. There has been a decrease in the proportion of risks tracked under the *Care* risk category from 36% in 2015 to 29% in 2019. *Human Resources, Information Management/Technology* and *Facilities* tracked risks have slightly increased over the last four years.

Figure 9**. Trend of distribution of Risk Register tracked risks by **strategic objective category



Top Healthcare Risks: Acute Care

Risks by *frequency*

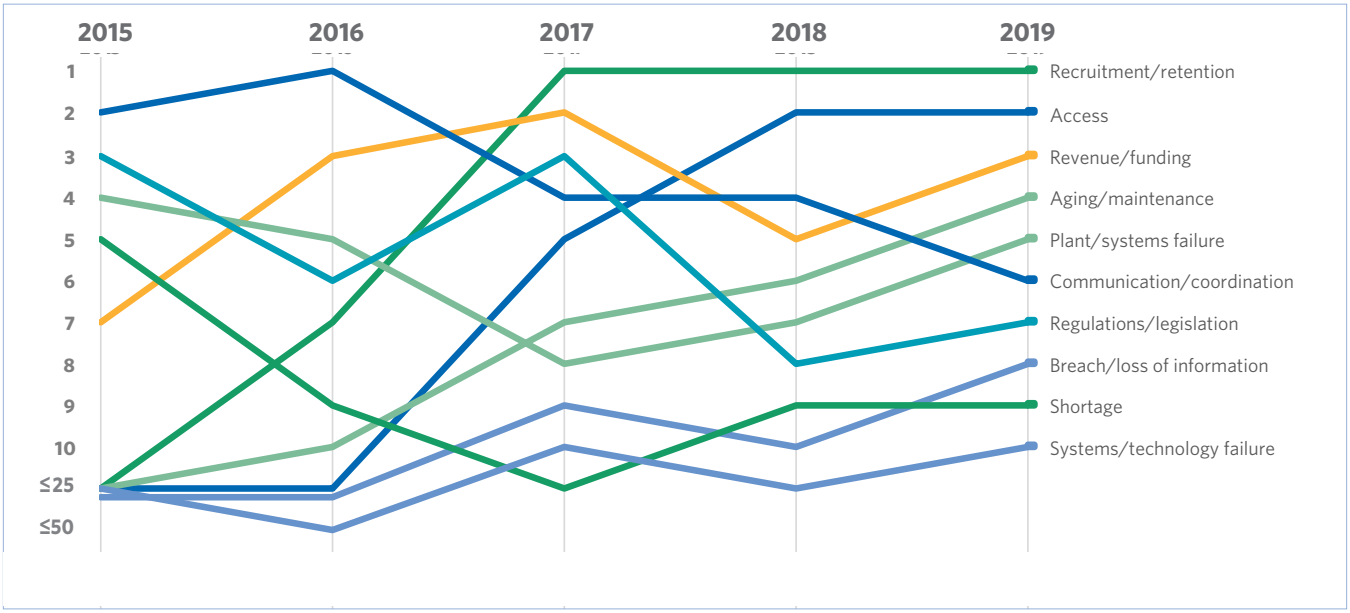
Over the last three years, there has been minimal change on which risks are the most tracked in the Risk Register. We continue to see eight risks from 2017 in the 2018 and 2019 top risks. *Recruitment/retention* has been the most frequently tracked risk over the last three years.

Appendix G provides a summary of all open risks tracked in the Risk Register for acute care organizations. Risks are listed by frequency of occurrence within each risk category.

***Table 5**. Trend of top 10 ranking by **frequency** of Risk Register tracked risks*

Rank	Category	Risk
1	HR	Recruitment/retention
2	Care	Access
3	Financial	Revenue/funding
4	Facilities	Aging/maintenance
5	Facilities	Plant/systems failure
6	Care	Communication/coordination
7	Regulation Professional	Regulations/legislation
8	IM/T	Breach/loss of information
9	HR	Shortage
10	IM/T	Systems/technology failure

***Figure 10**. Trend of top 10 ranking by **frequency** of Risk Register tracked risks*



Top Healthcare Risks: Acute Care

Risks by *likelihood*

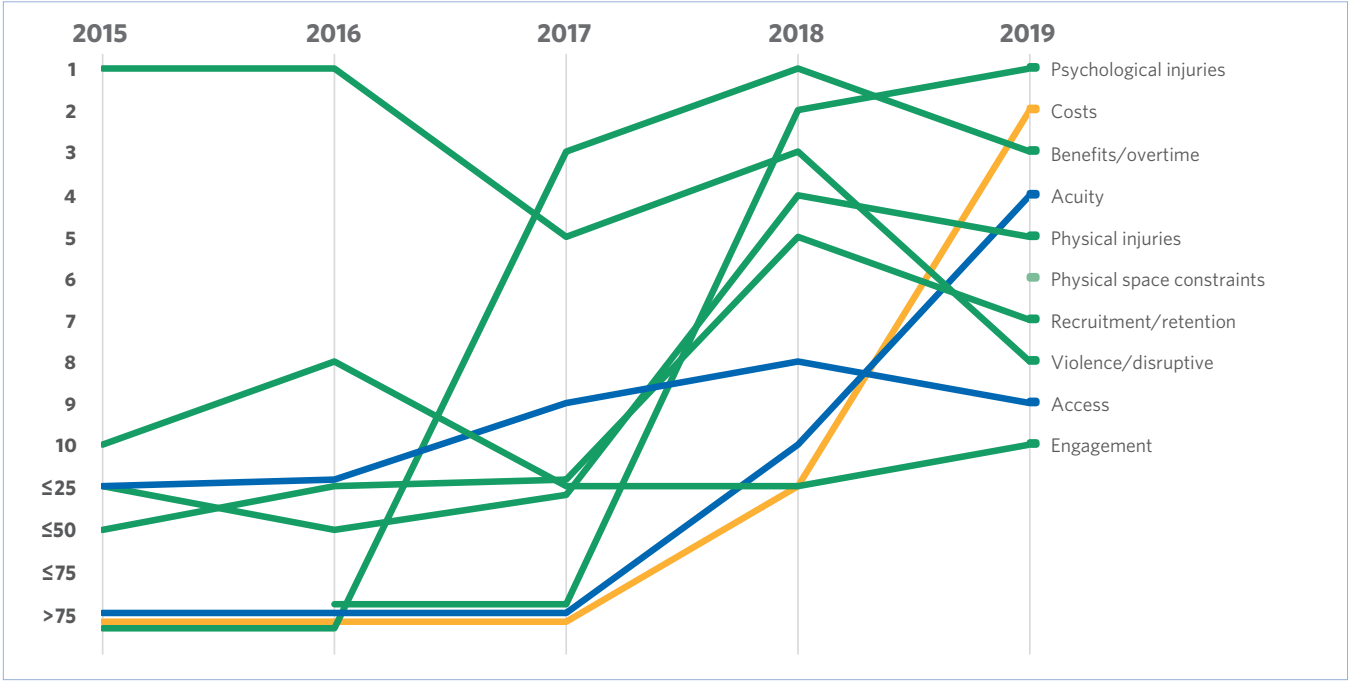
We observed some slight movement in the top 10 ranking by likelihood over the last year. Three risks from 2018 were displaced—*patient falls, building project/construction,* and *revenue/funding*.

Human Resources risks are predominant in the top 10 ranking for the last two years (top five risks in 2018, and six in 2019). *Psychological injuries, costs,* and *acuity* risks had upward movement in the likelihood ranking over the last two years. *Violence/disruptive* risks, presented over the last five years, have had a downward likelihood ranking since 2016.

***Table 6**. Trend of top 10 ranking by **likelihood** of Risk Register tracked risks*

Rank	Category	Risk
1	HR	Psychological injuries
2	Financial	Costs
3	HR	Benefits/overtime
4	Care	Acuity
5	HR	Physical injuries
6	Facilities	Physical space constraints
7	HR	Recruitment/retention
8	HR	Violence/disruptive
9	Care	Access
10	HR	Engagement

***Figure 11**. Trend of top 10 ranking by **likelihood** of Risk Register tracked risks*



Top Healthcare Risks: Acute Care

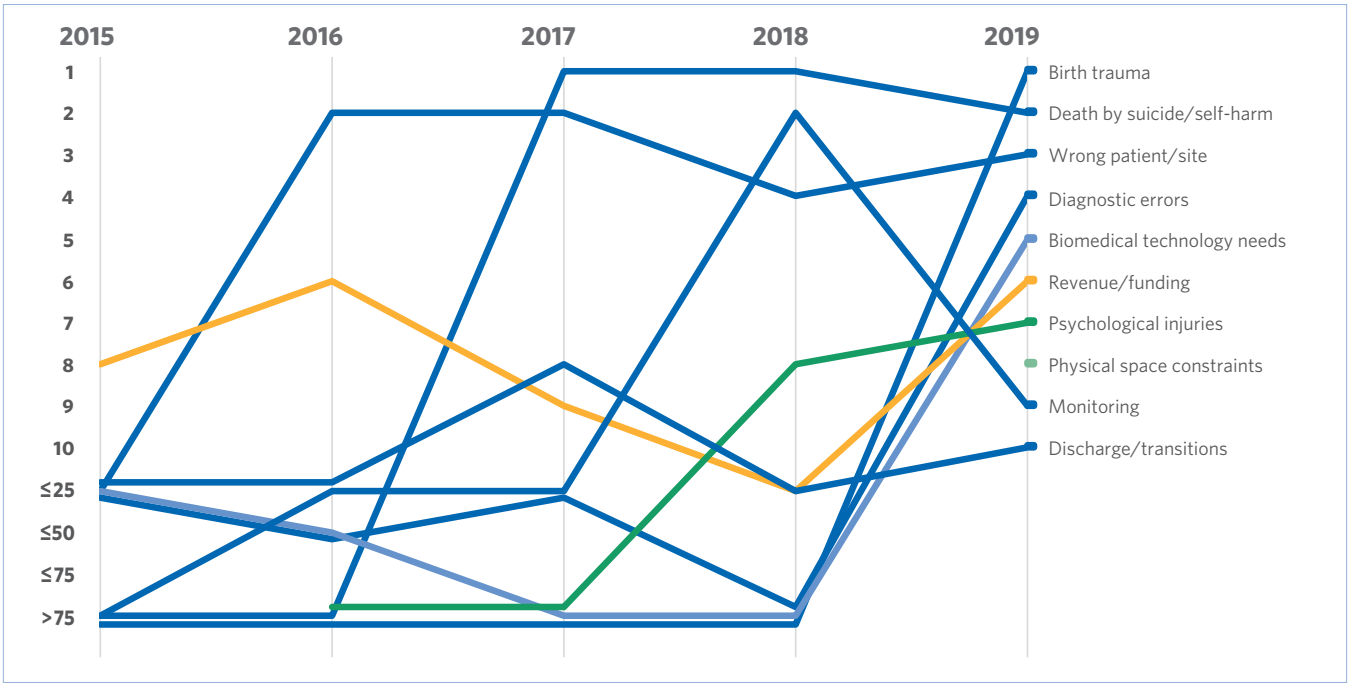
Risks by *impact*

This year there has been a shift in which risks ranked within the top 10 by impact compared to 2018. Six risks from 2018 were displaced: *experience/relations, information gaps, hazardous materials, patient falls, strategic projects,* and *access. Care* risks were predominant in the top four ranks for the last two years—for a total of six risks in both the 2018 and 2019 top 10 rankings. The top risk in 2019 is related to maternal/neonate.

***Table 7**. Trend of top 10 ranking by **impact** of Risk Register tracked risks*

Rank	Category	Risk
1	Care	Birth trauma
2	Care	Death by suicide/self-harm
3	Care	Wrong patient/site
4	Care	Diagnostic errors
5	IM/T	Biomedical technology needs
6	Financial	Revenue/funding
7	HR	Psychological injuries
8	Facilities	Physical space constraints
9	Care	Monitoring
10	Care	Discharge/transitions

***Figure 12**. Trend of top 10 ranking by **impact** of Risk Register tracked risks*



Top Healthcare Risks: Acute Care

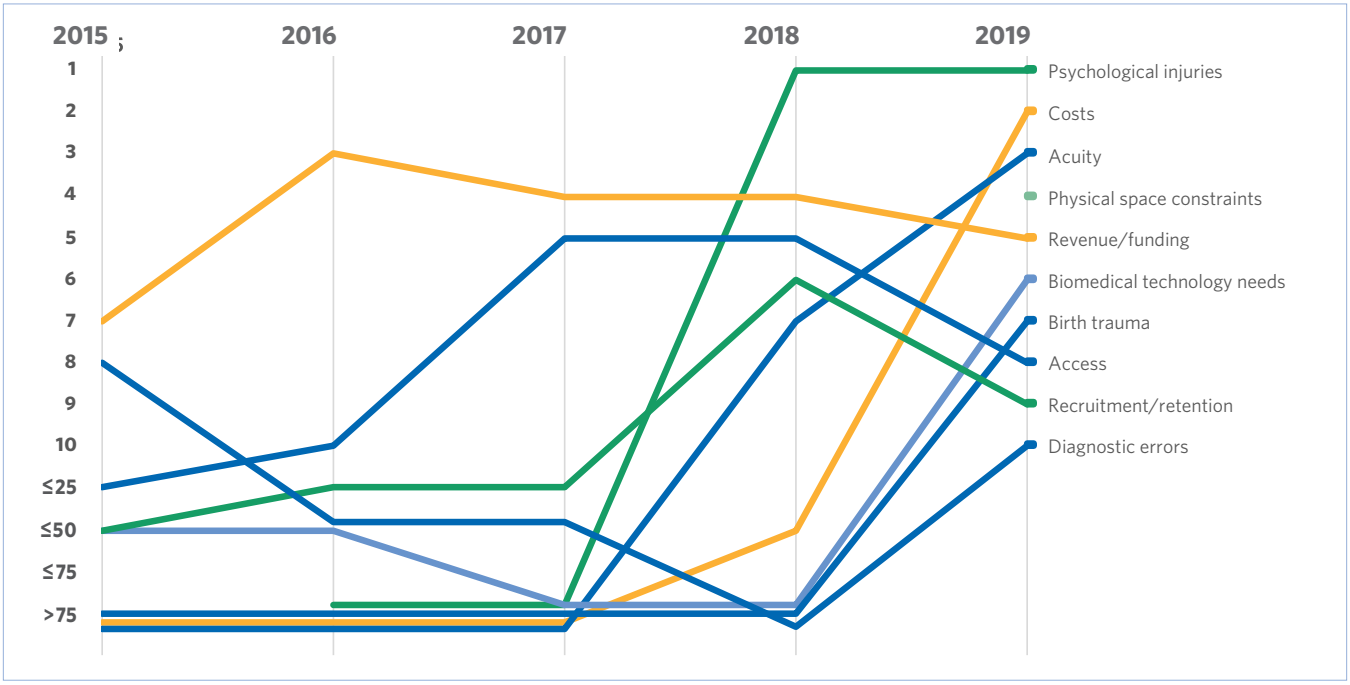
Risks by ***rating***

Movement on the likelihood and impact rankings affects the rating ranking. As such, several of the top 10 risks from previous years have been displaced, explaining the introduction of *costs, physical space constraints, biomedical technology needs, birth trauma,* and *diagnostic errors* to the top 10 ranking by rating.

Table 8*. Trend of top 10 ranking by* ***rating*** *of Risk Register tracked risks*

Rank	Category	Risk
1	HR	Psychological injuries
2	Financial	Costs
3	Care	Acuity
4	Facilities	Physical space constraints
5	Financial	Revenue/funding
6	IM/T	Biomedical technology needs
7	Care	Birth trauma
8	Care	Access
9	HR	Recruitment/retention
10	Care	Diagnostic errors

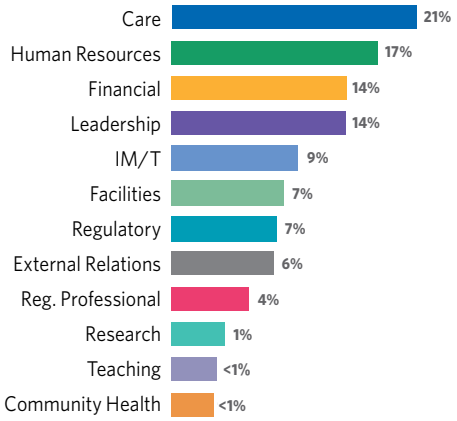
Figure 13*. Trend of top 10 ranking by* ***rating*** *of Risk Register tracked risks*



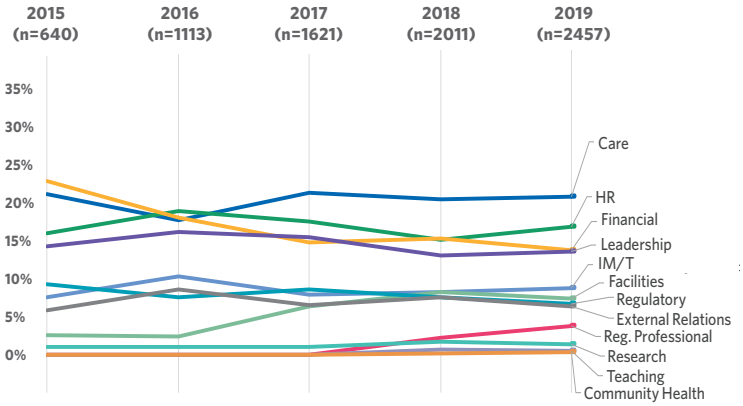
SNAPSHOT

Top Healthcare Risks: Non-Acute Care

Distribution of Risk Register 2019 tracked risks by *strategic objective category*



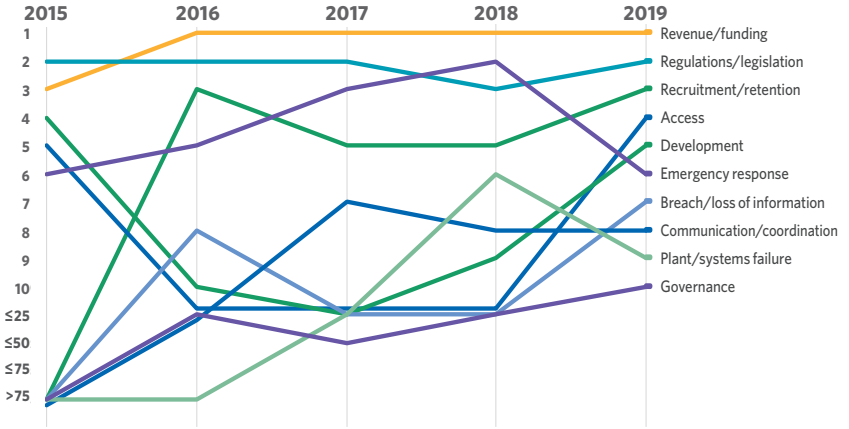
Five-year trend of distribution of Risk Register tracked risks by *strategic objective category*



Top 10 Risk Register 2019 tracked risks by *frequency*

#	Category	Risk
1	Financial	Revenue/funding
2	Regulatory	Regulations/legislation
3	HR	Recruitment/retention
4	Care	Access
5	HR	Development
6	Leadership	Emergency response
7	IM/T	Breach/loss of information
8	Care	Communication/coordination
9	Facilities	Plant/systems failure
10	Leadership	Governance

Trend of top 10 ranking by *frequency* of Risk Register tracked risks



Top 10 Risk Register 2019 tracked risks by *likelihood*

#	Category	Risk
1	Care	Supply shortages
2	Care	Access
3	Leadership	Change management
4	Care	Complaints management
5	Leadership	Politics
6	Care	Patient falls
7	Leadership	Information gaps
8	HR	Recruitment/retention
9	HR	Psychological injuries
10	Financial	Revenue/funding

Top 10 Risk Register 2019 tracked risks by *impact*

#	Category	Risk
1	IM/T	Breach/loss of information
2	Leadership	Culture
3	Financial	Revenue/funding
4	IM/T	Records management
5	IM/T	Systems reliability
6	Ext. Relations	Donor relations
7	HR	Psychological injuries
8	Care	Experience/relations
9	Care	Security/assault
10	Facilities	Aging/maintenance

Top 10 Risk Register 2019 tracked risks by *rating*

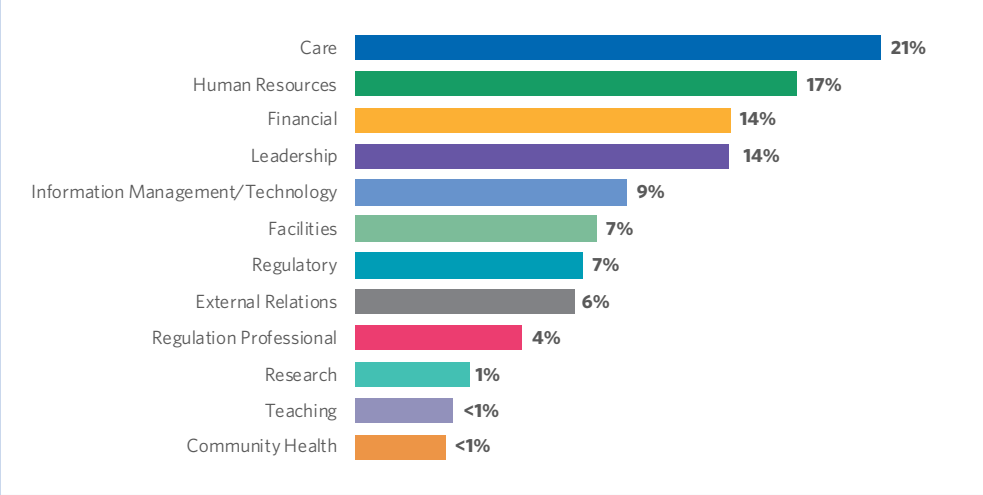
#	Category	Risk
1	Financial	Revenue/funding
2	Care	Complaints management
3	Care	Access
4	Leadership	Change management
5	Leadership	Politics
6	HR	Psychological injuries
7	Care	Supply shortages
8	HR	Recruitment/retention
9	IM/T	Systems reliability
10	Care	Patient falls

Top Healthcare Risks: Non-Acute Care

Risks by ***strategic objective category***

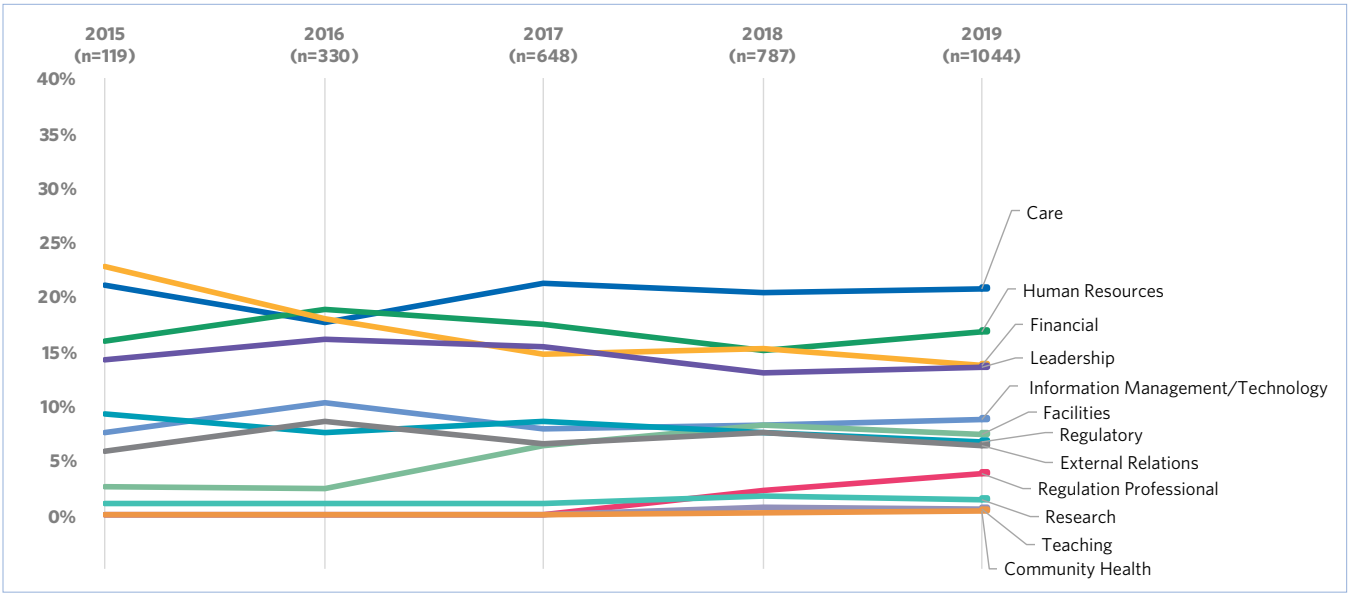
Eighty-two per cent of tracked risks across non-acute care organizations can be clustered into two main groups: risks related 1) to people, and 2) to organizational infrastructure. *Care* and *Human Resources* risks account for 38% of tracked open risks in the Risk Register. The following 44% of risks belong to either *Financial, Leadership, Information Management/Technology,* or *Facilities* risk categories.

Figure 14**. Distribution of Risk Register tracked risks by **strategic objective category



There have been some slight shifts in the ranking of risk categories over the last five years. The proportions of *Care, Human Resources,* and *Leadership* risks remain fairly consistent. There has been a decrease in the proportion of risks tracked under the *Financial* risk category from 23% in 2015 to 14% in 2019.

Figure 15**. Trend of distribution of Risk Register tracked risks by **strategic objective category



Top Healthcare Risks: Non-Acute Care

Risks by ***frequency***

We observed some change in the top 10 ranking by frequency over the last year. Three risks from 2018 were displaced—*infection control, physical injuries,* and *community relations.*

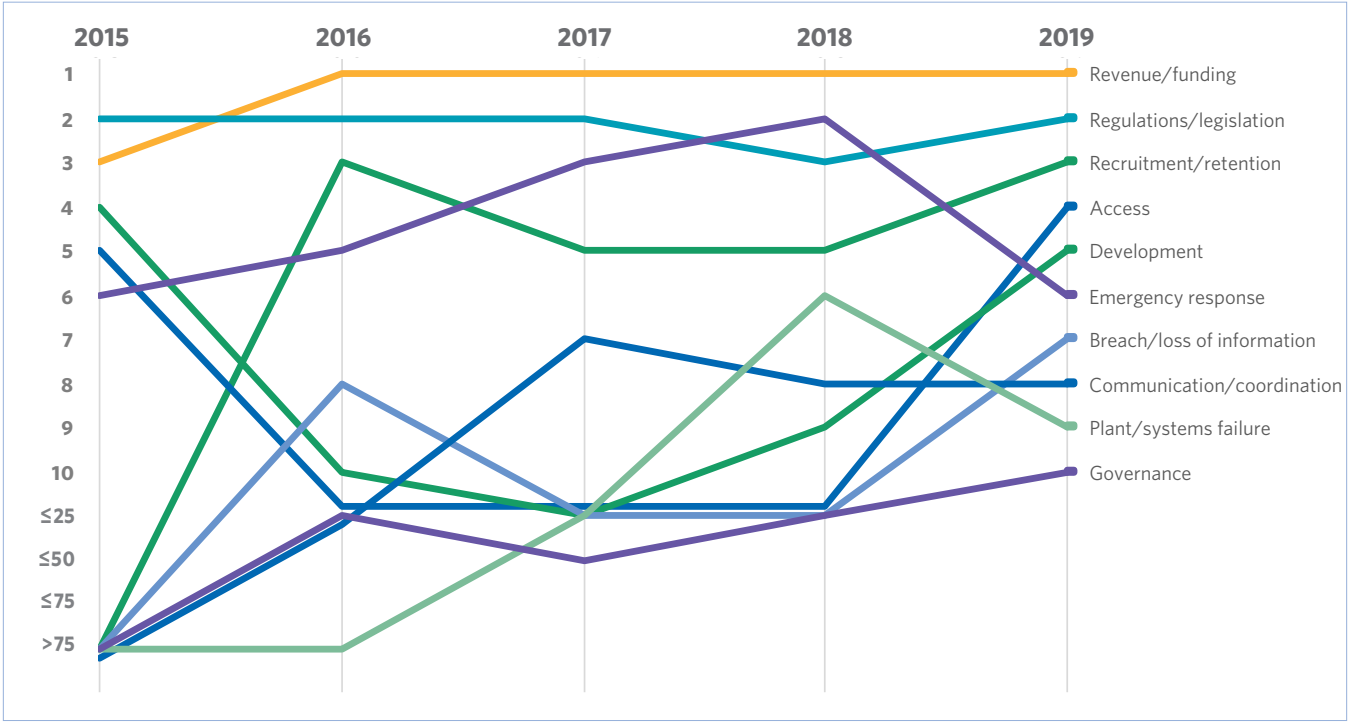
Overall, *revenue/funding* and *regulations/legislation* risks continue to be the most-frequently tracked risks, as they have ranked in the top three ranks over the last five years.

Appendix H provides a summary of all open risks tracked in the Risk Register for non-acute care organizations. Risks are listed by frequency of occurrence within each risk category.

Table 9*. Trend of top 10 ranking by* ***frequency*** *of Risk Register tracked risks*

Rank	Category	Risk
1	Financial	Revenue/funding
2	Regulatory	Regulations/legislation
3	HR	Recruitment/retention
4	Care	Access
5	HR	Development
6	Leadership	Emergency response
7	IM/T	Breach/loss of information
8	Care	Communication/coordination
9	Facilities	Plant/systems failure
10	Leadership	Governance

Figure 16*. Trend of top 10 ranking by* ***frequency*** *of Risk Register tracked risks*



Top Healthcare Risks: Non-Acute Care

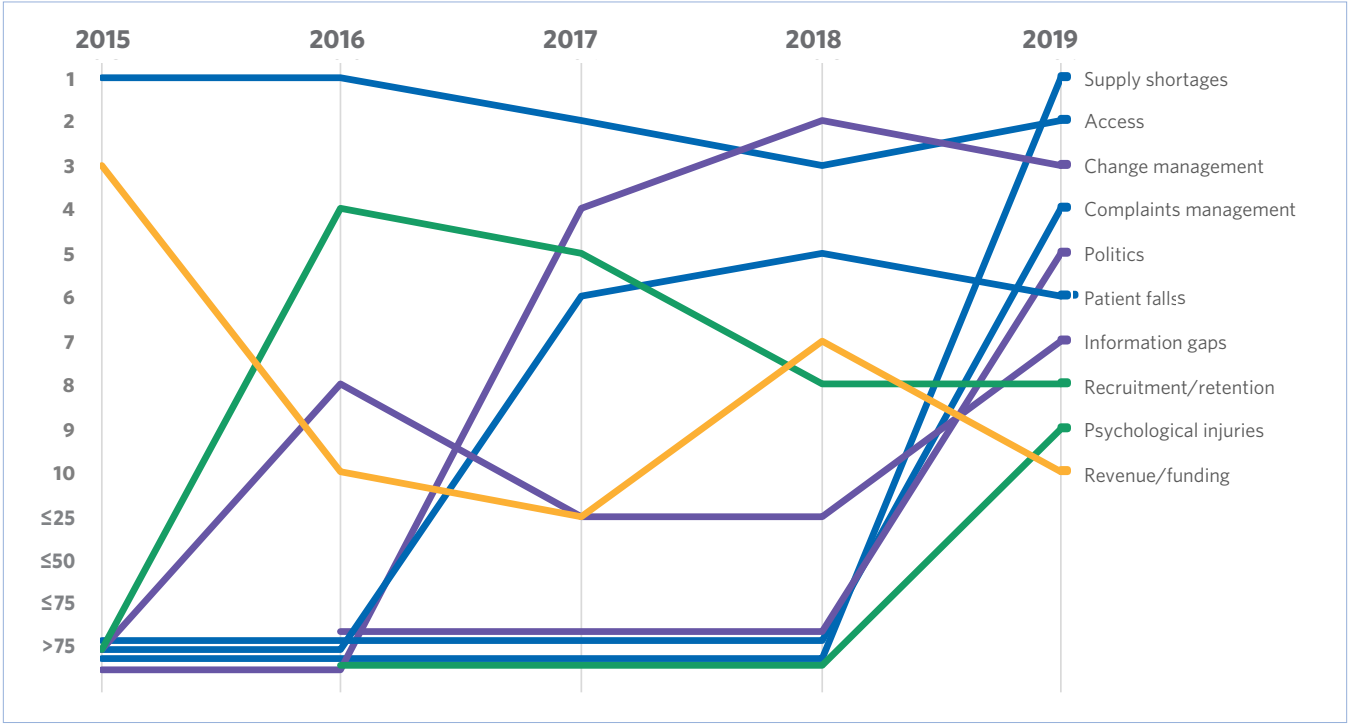
Risks by ***likelihood***

Compared to 2018, we observed movement in the top 10 ranking by likelihood this year. Five risks from 2018 were displaced—*partner relations, diagnostic errors, government relations, community relations,* and *shortage. Supply shortages* risks had an upward trend over the last year, ranking first in likelihood this year. Over the last five years, even though *access* risks have had a downward trend, they continue to be a predominant risk by likelihood, ranking second this year.

Table 10*. Trend of top 10 ranking by* ***likelihood*** *of Risk Register tracked risks*

Rank	Category	Risk
1	Care	Supply shortages
2	Care	Access
3	Leadership	Change management
4	Care	Complaints management
5	Leadership	Politics
6	Care	Patient falls
7	Leadership	Information gaps
8	HR	Recruitment/retention
9	HR	Psychological injuries
10	Financial	Revenue/funding

Figure 17*. Trend of top 10 ranking by* ***likelihood*** *of Risk Register tracked risks*



Top Healthcare Risks: Non-Acute Care

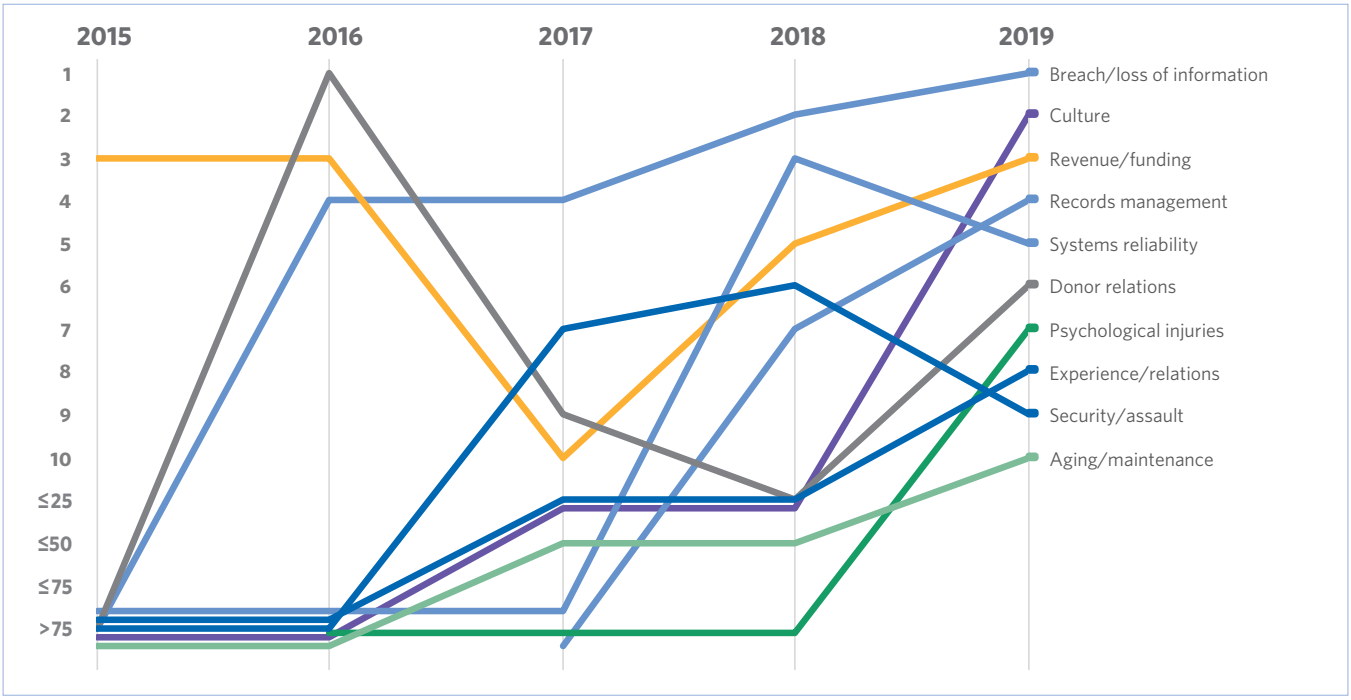
Risks by ***impact***

We also observed movement in the top 10 risks by impact compared to the previous years. Five risks from 2018 were displaced—*diagnostic errors, QA of clinical/medical practice, access, strategic projects*, and *general adverse events.* Risks related to b*reach/loss of information* and *revenue/funding* have had an upward trend over the last three years, ranking first and third based on impact score this year.

Table 11*. Trend of top 10 ranking by* ***impact*** *of Risk Register tracked risks*

Rank	Category	Risk
1	IM/T	Breach/loss of information
2	Leadership	Culture
3	Financial	Revenue/funding
4	IM/T	Records management
5	IM/T	Systems reliability
6	External Relations	Donor relations
7	HR	Psychological injuries
8	Care	Experience/relations
9	Care	Security/assault
10	Facilities	Aging/maintenance

Figure 18*. Trend of top 10 ranking by* ***impact*** *of Risk Register tracked risks*



Top Healthcare Risks: Non-Acute Care

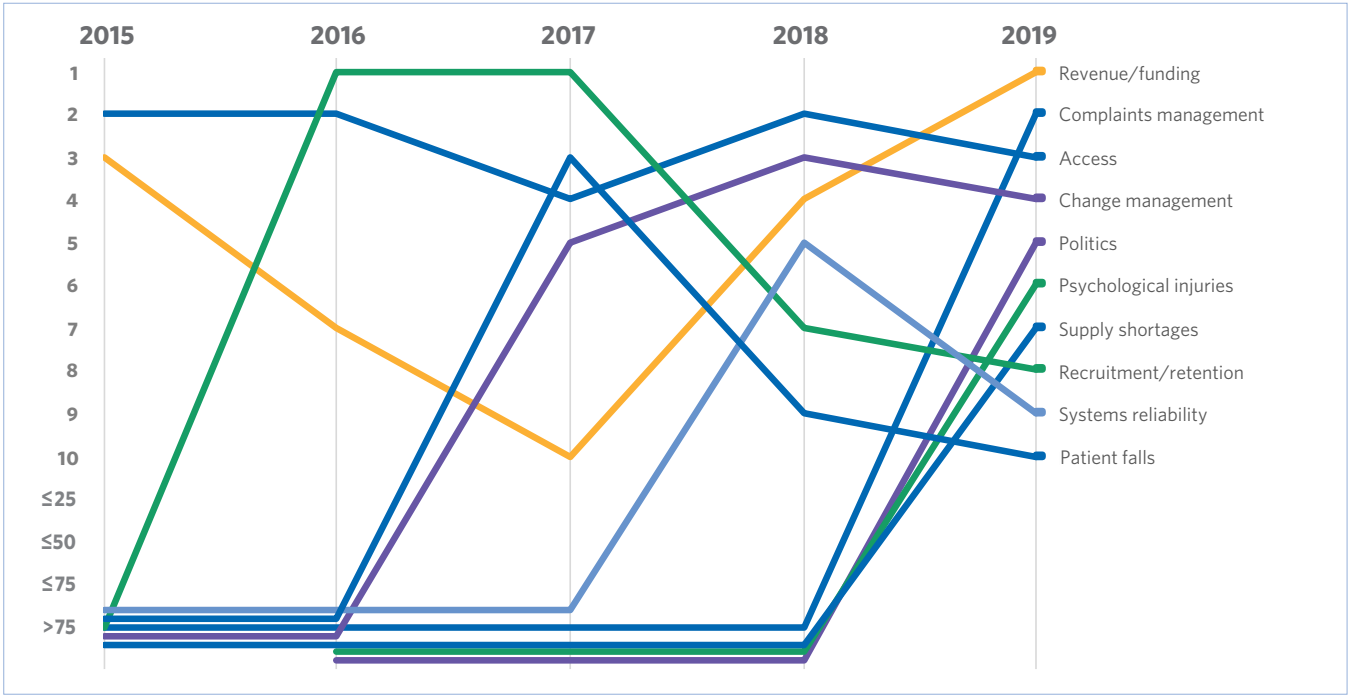
Risks by ***rating***

Movement on the likelihood and impact rankings affects the rating ranking. As such, several of the top 10 risks from previous years have been displaced, explaining the introduction of *complaints management, politics, psychological injuries, supply shortages,* and *systems reliability* risks to the top 10 ranking by rating.

Table 12*. Trend of top 10 ranking by* ***rating*** *of Risk Register tracked risks*

Rank	Category	Risk
1	Financial	Revenue/funding
2	Care	Complaints management
3	Care	Access
4	Leadership	Change management
5	Leadership	Politics
6	HR	Psychological injuries
7	Care	Supply shortages
8	HR	Recruitment/retention
9	IM/T	Systems reliability
10	Care	Patient falls

Figure 19*. Trend of top 10 ranking by* ***rating*** *of Risk Register tracked risks*



Turning the Corner on Patient Safety

Over the years, the IRM program and shared Risk Register application have spread at scale, including progression of a Canadian database. This allows for aggregate analysis of key risks healthcare providers are facing. The Top Healthcare Risks 2020 Report offers a unique lens on what healthcare organizations are concerned with across the Canadian healthcare system, and aims to provide insights and share knowledge to continually improve risk management practices.

How can this report help you advance your IRM program?

- This information can facilitate the conversation with your senior team and board to advance your IRM program. The analysis of aggregate data, which reveals top risks by frequency, and by average ratings of likelihood and impact can assist in risk identification. Consider significant risks in your own organization and the most important risks in healthcare—the risk of harm to patients and staff—while maintaining a balanced appreciation of other key areas.
- Review this report with your safety, risk, patient safety, and quality teams to build awareness of common risks. The information in this report is meant to help you systematically identify and assess key risks within your own organizations while developing mitigation strategies.
- Identify areas of opportunity in your own IRM program.

Creating investment through committed conversations on safety may foster meaningful and regional benchmarking between peer organizations and further refinement of the data by geographic location for additional comparisons. Evaluating the linkage of Risk Register data with other data sources, such as the HIROC claims database, is another area for HIROC to explore to further refine and evaluate the impact of risks.

The Risk Register application will continue to yield valuable insights and share knowledge to improve the management of key risks. Learnings gleaned from the Risk Register will assist in the achievement of strategic objectives across the healthcare system—particularly the objective of ensuring high-quality and safe care for all.

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Glossary

Acute-care organizations	Refers to hospitals, including large/teaching hospitals and regional health authorities.
All organizations	Includes both acute care and non-acute care organizations.
Closed risk	Risk status in the Risk Register is resolved or inactive.
Frequency	The number of times a particular risk has been entered into the Risk Register by organizations. The highest frequency risks are those with the highest count or prevalence in the system.
Likelihood	The probability of an event occurring. The Risk Register allows for risks entered into the system to be assessed on a five-point likelihood/probability scale, with five being the highest (See Appendix D for Common Risk Scoring Matrix and likelihood scale). Average likelihood scores are used for aggregate analysis of risks in the Top Healthcare Risks report.
Impact	The consequences and losses that could result if a risk were to be realized (e.g. patient harm, service interruption, financial costs). The Risk Register allows for risks to be assessed on a five-point impact/severity scale, with five being the highest (See Appendix D for Common Risk Scoring Matrix and likelihood scale). Average impact scores are used for aggregate analysis of risks in the Top Healthcare Risks report.
Integrated Risk Management (IRM)	Integrated Risk Management (IRM) is defined as "a continuous, proactive, and systematic process to understand, manage, *prioritize** and communicate risk from an organization-wide perspective in a cohesive and consistent manner. It is about supporting strategic decision-making that contributes to the achievement of an organization's overall objectives." (Treasury Board of Canada Secretariat, 2016), *added by HIROC
Non-acute care organizations	Refers to primary/community health centers, long-term care, hospices, rehab centers, mental health, and organizations that do not provide direct patient care.
Open risk	Risk status in the Risk Register is active or under initial review.
Rating	The overall risk rating is generated in the Risk Register system as the multiplication of likelihood and impact scores, with a total of 25 being the highest score.
Risk	The possibility of loss or injury. (Merriam-Webster, 2017) The terms risk and hazard are not interchangeable. A hazard is a source of potential damage or harm (e.g. water on the floor), while a risk is the potential that harm will occur if exposure to the hazard occurs (e.g. visitor fall). (Health Canada, 2009) A risk is the "chance or possibility of danger, loss, or injury. For health services organizations, this can relate to the health and well-being of clients, staff and the public, property, reputation, environment, organizational functioning, financial stability, market share and other things of value." (Accreditation Canada, 2009)
Risk category	Concise list of key risks related/aligned to a common set of strategic objectives.
Risk register	Online record and tool providing a high-level summary of the risks to the organization, including information related to risk lead, risk ratings, and key controls.
Trend	Long-term pattern that is currently evolving.

Appendices

Appendix A: IRM Best Practices

1 Ensure board and senior leader ownership

Boards must take an active and direct role in IRM (Caldwell, 2012), asking probing questions of management about key risks (Stevens, Willcox, & Borovoy, 2019). (See **Appendix E** for a HIROC resource describing the questions boards should ask senior leaders about risk). There must also be visible ownership of risks by senior leaders, ensuring accountability and resources for effective risk management.

2 Focus on risks to key strategic objectives

Evidence shows that in healthcare, there is no dichotomy between risks that are strategic and those that are operational. Rather, *strategic risks* are risks that if left unchecked, could negatively impact achievement of *strategic objectives,* including risks in *operational* areas such as patient harm, staff harm, loss of resources or services. Operational events such as the high-profile death of a patient because of an adverse event or fraud by a key staff member can quickly impact strategic risks. In the Canadian healthcare system, there is alignment around a common set of strategic objectives (see examples in Table 13. Strategic objectives risk categories) and risks related to these objectives are largely known.

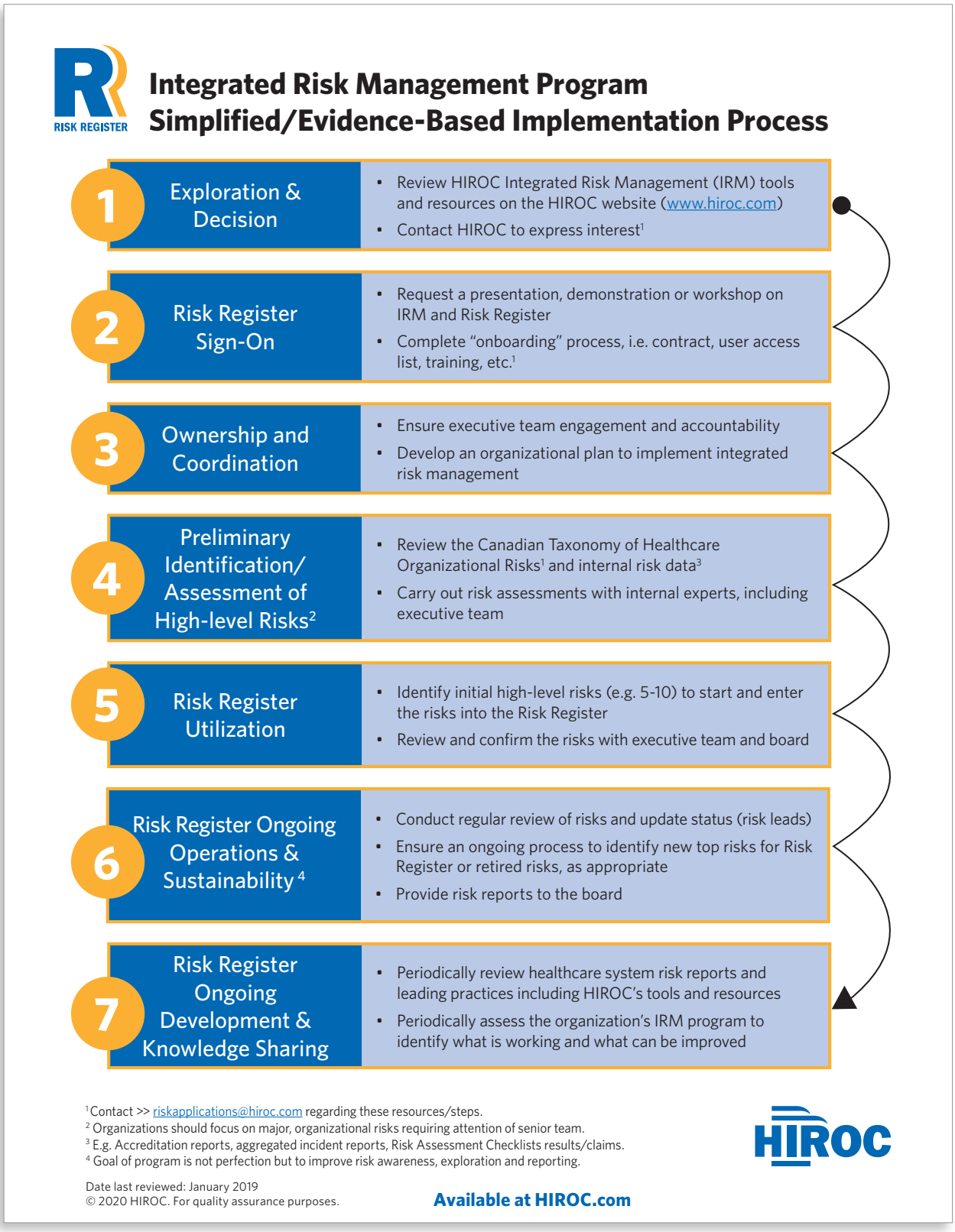
3 Keep it simple

In complex human-based systems (such as healthcare), some important risks are hard to quantify and risk assessments by individuals and groups are inherently biased (Mikes & Kaplan, 2014). Organizations that have been successful in implementing IRM, simplify processes, iterate, and start with a few key risks and actions to improve these.

***Table 13**. Strategic objectives risk categories*

RISK CATEGORIES	Sample strategic objective statement
Care	Deliver safe, high-quality care
Community Health	Develop effective health promotion and prevention programs
External Relations	Listen to the needs of our community
Facilities	Strategically invest in facilities
Financial	Maintain strong financial performance
Human Resources	Provide a safe and engaging work environment for staff and physicians
Information Management/Technology	Use technology to improve quality, safety and continuity of care
Leadership	Establish a culture that focuses on learning, collaboration, and improvement
Regulation-Professional	Maintain good professional practice standards
Regulatory	Achieve exemplary accreditation standing
Research	Develop new knowledge and innovations
Teaching	Educate healthcare providers on meeting the future needs of the community

Appendix B: IRM Process



Appendices

Appendix C: Risk Profiles

Risk Profiles contain information entered by HIROC Subscribers in the Risk Register with the aim of sharing best practices amongst healthcare organizations. Below is the list of Risk Profiles developed to date, ordered by risk categories.

Care

Access
Adverse events (general)
Communication/coordination
Diagnostic errors
Discharge/transitions
Infection control
Medication
Monitoring
Patient falls
Security/assault
Supply shortages
Wrong patient/site

Human Resources

Development
Staff engagement
Physical injuries
Psychological injuries
Recruitment/retention
Shortage
Workplace violence/disruptive behaviour

Financial

Costs
Fraud
Inefficiencies
Revenue/funding

Leadership

Change management
Emergency response
Governance
Strategic projects
Strategy alignment

Information Management/Technology

Breach/loss of information
Systems/technology failure
Systems/technology needs

Facilities

Aging/maintenance
Building project/construction
Plant/systems failure

Regulatory

Accreditation
Privacy
Regulations/legislation

External Relations

Community relations

Appendices

Appendix D: Common Risk Scoring Matrix

Adapted from 'A risk matrix for risk managers', National Patient Safety Agency, NHS, UK 2008 (NHS, 2008)

LIKELIHOOD SCALE

Category	Very Low	Low	Medium	High	Very High
Broad descriptors	• Will probably never occur/recur	• Do not expect it to happen/recur but it is possible	• Might happen or recur occasionally	• Will probably happen/ recur	• Will undoubtedly happen/recur, possibly frequently
Time-frame	• Not expected to occur for years	• Expected to occur at least annually	• Expected to occur at least monthly	• Expected to occur at least weekly	• Expect to occur at least daily
Probability	• <0.1%	• 0.1-1%	• 1-10%	• 10-50%	• >50%

POTENTIAL IMPACT SCALE

Dimension	Very Low	Low	Medium	High	Very High
Physical/ psychological harm	• Minimal harm, no/minimal intervention or treatment • No time off work	• Minor harm or illness, minor intervention • Time off work for <3 days • Increase in LOS by 1-3 days	• Moderate harm, professional intervention • Time off work for 4-14 days • Increase in LOS by 4-15 days • Small number of patients	• Major harm leading to long-term incapacity disability • Time off work for >14 days • Increase in LOS by >15 days • Mismanagement of patient care with long-term effects	• Incident may lead to death • Multiple permanent instances of harm, irreversible health effects • Large number of patients
Disengaged staff/ physicians	• Low level of internal grievances	• Grievances occurring but not in large numbers	• Grievances show an increasing pattern • Low staff morale	• Grievances are increasing and more pervasive • Very low staff morale	• Grievances preoccupy the organization, arbitration and external review • Loss of several key staff
Financial loss	• Small loss	• 1% of budget	• 1-2% of budget	• 2-5% of budget	• >5% of budget
Reputation with stakeholders (including: community, donor, media, gov't, public, partners)	• Rumours • Potential stakeholder concern	• Local media coverage (short- term) • Elements of stakeholder expectation not being met	• Local media coverage (sustained) • Short-term reduction in stakeholder confidence	• National media coverage (short-term) • Potential for political involvement • Longer-term reduction in stakeholder confidence	• National media coverage (sustained) • Political intervention • Sr. leader termination • Long-term reduction in stakeholder confidence
Service/ business interruption	• Interruption of >1 hour	• Interruption of >8 hours	• Interruption of >1 day	• Interruption of >1 week	• Permanent loss of service or facility
Compliance	• Minor non-compliance statutory duty	• Single failure to meet external standards or follow protocol • Recommendations to comply with external agency	• Repeated failures to meet external standards • Orders issued, report required by external agency	• Multiple statutory breeches /non-compliance with external standards • Prolonged inspection, significant findings • Prosecution initiated for non-compliance	• Gross failure to meet standards • Maximum fines • Criminal code violation • Impact on affiliation agreements
Business objectives/projects	• Insignificant schedule delay	• Minor schedule delay • Small number of objectives not met	• Moderate schedule delay • Some objectives not met	• Significant schedule delay • Key objectives not met	• Initiative not implemented • Key objectives not met

Appendix E: Guidance for Healthcare Boards

HIROC

21 Questions

Guidance for healthcare boards on what they should ask senior leaders about risk.

Drawing on strong ethical and evidence-based principles, HIROC, in collaboration with Subscribers, has developed guiding questions to help boards of healthcare organizations carry out a critical governance function – the oversight of key organizational risks.

Strategic context

1 What are the organization's vision and strategic objectives and do they reflect the core mandate of delivering high quality, safe care?

Board education

2 How does the board get the knowledge and experience necessary to oversee risk management in a healthcare organization?

Risk culture

3 What is the board doing to encourage speaking up across the organization about potential risks and unsafe practices?

Risk management program

4 What is the organization's policy/ plan/framework for identifying, assessing and managing key risks?

5 How do senior leaders demonstrate ownership for key risks?

Key risks (patients & staff)

6 What are the most significant risks related to care?

7 What are the themes/trends arising from patient complaints?

8 What are the most significant risks related to human resources?

Key risks (other)

9 What are the most significant risks related to finances?

10 What are the most significant risks related to leadership?

11 What are the most significant risks related to external relations?

12 What are the most significant risks related to information management/ technology?

13 What are the most significant risks related to facilities/infrastructure?

14 What are the most significant risks related to regulatory compliance?

15 What are other significant risks (e.g. research, education)?

Risk management

16 How are decisions made on additional controls or actions required to manage key risks?

Risk prioritization

17 How do senior leaders determine top organizational risks and which risks to report to the board?

Risk reporting

18 What records are kept for key risks and how do these roll-up into regular, effective reports for management and the board?

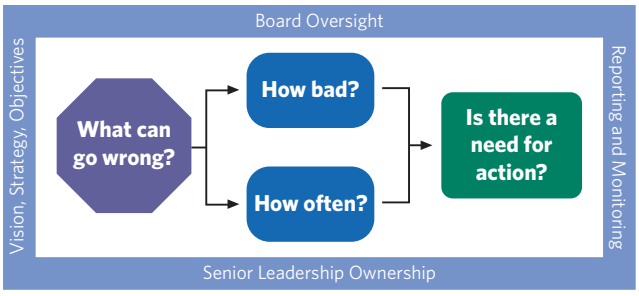
Crisis response

19 How does the organization plan for, respond to and learn from crises?

Assurance and evaluation

20 How is the board assured that controls for key risks are working?

21 How is the organization's risk management program evaluated?



A simplified risk management framework

 Available at HIROC.com December 2018

Appendices

Appendix F: Risks by Frequency – All Organizations

Below are all risks entered in the Risk Register to date for all organizations. They are sorted by most frequently cited within each category. See the "Taxonomy of Healthcare Organizational Risks" for full list of key risks and longer descriptions.

Risks by frequency - All Organizations

Care

1 Access
2 Communication/coordination
3 Medication
4 Infection control
5 Adverse events (AE)
6 Security/assault
7 Patient Falls
8 Monitoring
9 Laboratory/radiology
10 Supply shortages
11 Discharge/transitions
12 Experience/relations
13 Wrong patient/site
14 Pressure injuries
15 Care/consent conflicts
16 Complaints management
17 Acuity
18 Diagnostic errors
19 Death by suicide/self-harm
20 Elopement/unauthorized absence
21 Multi-incident
22 Support services
23 Abduction
24 Birth trauma
25 Contracted services monitoring
26 Length of stay
27 Pain management
28 Patient victimization
29 Restraints/entanglement/entrapment
30 Retained foreign objects
31 Readmissions

Human Resources

1 Recruitment/retention
2 Shortage
3 Development
4 Physical injuries
5 Violence/disruptive
6 Engagement
7 Labour relations
8 Scope of practice
9 Psychological injuries
10 Benefits/overtime
11 Agency issues
12 Rights
13 Wrongful dismissal

Financial

1 Revenue/funding
2 Costs
3 Inefficiencies
4 Fraud
5 Contracts
6 Reporting
7 Procurement
8 Fines/liabilities
9 Investments
10 Supply chain

Leadership

1 Emergency response
2 Governance
3 Strategy alignment
4 Change management
5 Succession
6 Strategic projects
7 Information gaps
8 Culture
9 Mergers
10 Politics
11 Alignment acute/non-acute
12 New program/technology
13 Conflict of interest

Information Management/Technology

1 Breach/loss of information
2 Systems/technology failure
3 Systems/technology needs
4 Systems reliability
5 Records management
6 Systems project
7 Systems integration
8 Technology use
9 Biomedical technology needs
10 Biomedical technology failure
11 Systems reliability
12 Systems/technology support

Facilities

1 Plant/systems failure
2 Aging/maintenance
3 Building access
4 Building project/construction
5 Property damage
6 Hazardous materials
7 Physical space constraints
8 Visitor falls

Regulatory

1 Regulations/legislation
2 Accreditation
3 Credentialing
4 Performance agreements

External Relations

1 Community relations
2 Partner relations
3 Media relations
4 Government relations
5 Donor relations

Regulation – Professional

1 Privacy
2 Facility accreditation/quality review
3 Quality assurance of clinical/medical practice
4 Complaints/resolution
5 Registration/licensure

Teaching

1 Student experience
2 Contracts (teaching)
3 Student performance
4 Accreditation (teaching)

Research

1 Funding (research)
2 Adverse events (research subjects)
3 Ethics
4 Contracts (research)
5 Intellectual property
6 Inspections (research)

Community Health

1 Demographics
2 Emergency medical services
3 Primary care
4 Chronic disease management

Appendices

Appendix G: Risks by Frequency – Acute Care

Below are all risks entered in the Risk Register to date for acute care organizations. They are sorted by most frequently cited within each category. See the "Taxonomy of Healthcare Organizational Risks" for full list of key risks and longer descriptions.

Risks by frequency - Acute Care

Care

1 Access
2 Communication/coordination
3 Medication
4 Adverse events (AE)
5 Patient Falls
6 Security/assault
7 Infection control
8 Monitoring
9 Discharge/transitions
10 Laboratory/radiology
11 Pressure injuries
12 Supply shortages
13 Care/consent conflicts
14 Wrong patient/site
15 Experience/relations
16 Acuity
17 Death by suicide/self-harm
18 Complaints management
19 Birth trauma
20 Diagnostic errors
21 Elopement/unauthorized absence
22 Length of stay
23 Multi-incident
24 Pain management
25 Retained foreign objects
26 Abduction
27 Patient victimization
28 Restraints/entanglement/entrapment
29 Support services
30 Contracted services monitoring
31 Readmissions

Human Resources

1 Recruitment/retention
2 Shortage
3 Violence/disruptive
4 Physical injuries
5 Engagement
6 Development
7 Labour relations
8 Psychological injuries
9 Scope of practice
10 Benefits/overtime
11 Agency issues
12 Wrongful dismissal
13 Rights

Financial

1 Revenue/funding
2 Inefficiencies
3 Costs
4 Procurement
5 Fraud
6 Fines/liabilities
7 Reporting
8 Contracts
9 Investments
10 Supply chain

Leadership

1 Change management
2 Emergency response
3 Culture
4 Strategic projects
5 Strategy alignment
6 Succession
7 Mergers
8 Information gaps
9 Governance
10 New program/technology
11 Politics
12 Conflict of interest

Information Management/Technology

1 Breach/loss of information
2 Systems/technology failure
3 Systems/technology needs
4 Systems reliability
5 Systems project
6 Technology use
7 Biomedical technology needs
8 Systems integration
9 Records management
10 Biomedical technology failure
11 Systems reliability
12 Systems/technology support

Facilities

1 Aging/maintenance
2 Plant/systems failure
3 Building project/construction
4 Building access
5 Property damage
6 Physical space constraints
7 Hazardous materials
8 Visitor falls

Regulatory

1 Regulations/legislation
2 Accreditation
3 Credentialing
4 Performance agreements

External Relations

1 Community relations
2 Partner relations
3 Government relations
4 Media relations
5 Donor relations

Regulation – Professional

1 Privacy
2 Quality assurance of clinical/medical practice
3 Facility accreditation/ quality review
4 Complaints/resolution
5 Registration/licensure

Teaching

1 Student experience
2 Contracts (teaching)

Research

1 Funding (research)
2 Adverse events (research subjects)
3 Contracts (research)
4 Ethics
5 Inspections (research)
6 Intellectual property

Community Health

1 Demographics
2 Primary care
3 Chronic disease management
4 Emergency medical services

Appendices

Appendix H: Risks by Frequency – Non-Acute Care

Below are all risks entered in the Risk Register to date for non-acute care organizations. They are sorted by most frequently cited within each category. See the "Taxonomy of Healthcare Organizational Risks" for full list of key risks and longer descriptions.

Risks by frequency - Non-Acute Care

Care

1. Access
2. Communication/coordination
3. Infection control
4. Medication
5. Adverse events (AE)
6. Laboratory/radiology
7. Monitoring
8. Experience/relations
9. Security/assault
10. Supply shortages
11. Wrong patient/site
12. Patient Falls
13. Complaints management
14. Diagnostic errors
15. Care/consent conflicts
16. Elopement/unauthorized absence
17. Contracted services monitoring
18. Discharge/transitions
19. Death by suicide/self-harm
20. Support services
21. Abduction
22. Acuity
23. Multi-incident
24. Patient victimization
25. Pressure injuries
26. Restraints/entanglement/entrapment

Human Resources

1. Recruitment/retention
2. Development
3. Physical injuries
4. Shortage
5. Labour relations
6. Engagement
7. Violence/disruptive
8. Scope of practice
9. Psychological injuries
10. Rights
11. Wrongful dismissal
12. Agency issues
13. Benefits/overtime

Financial

1. Revenue/funding
2. Costs
3. Contracts
4. Fraud
5. Reporting
6. Inefficiencies
7. Fines/liabilities
8. Procurement
9. Investments
10. Supply chain

Leadership

1. Emergency response
2. Governance
3. Strategy alignment
4. Information gaps
5. Succession
6. Strategic projects
7. Change management
8. Culture
9. Mergers
10. Politics
11. Alignment acute/non-acute

Information Management/Technology

1. Breach/loss of information
2. Systems/technology failure
3. Systems/technology needs
4. Records management
5. Systems reliability
6. Systems integration
7. Systems project
8. Technology use

Facilities

1. Plant/systems failure
2. Aging/maintenance
3. Hazardous materials
4. Building access
5. Property damage
6. Building project/construction
7. Physical space constraints
8. Visitor falls

Regulatory

1. Regulations/legislation
2. Accreditation
3. Performance agreements
4. Credentialing

External Relations

1. Community relations
2. Partner relations
3. Media relations
4. Donor relations
5. Government relations

Regulation – Professional

1. Facility accreditation/ quality review
2. Privacy
3. Complaints / resolution
4. Quality assurance of clinical/medical practice
5. Registration/licensure

Teaching

1. Student performance
2. Accreditation (teaching)
3. Contracts (teaching)
4. Student experience

Research

1. Funding (research)
2. Adverse events (research subjects)
3. Ethics
4. Contracts (research)
5. Intellectual property

Community Health

1. Demographics
2. Emergency medical services

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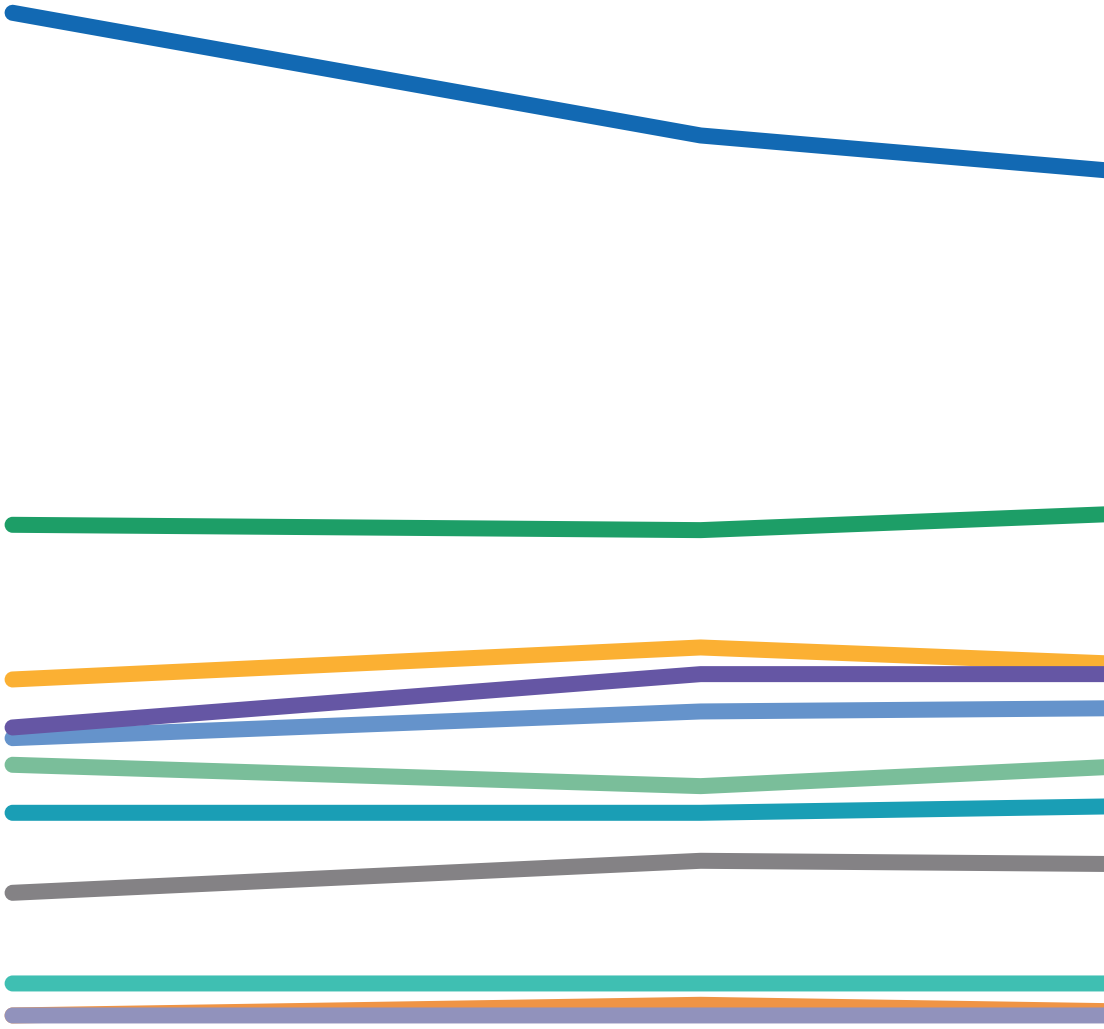

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