

### Facilities - Aging/Maintenance

An organization's aging infrastructure and lack of maintenance can lead to several impacts including and not limiting to loss of operations, injuries, increase in waste/inventory, poor patient experience and flow, financial impact, and reputational loss. This risk can also impede an organization's ability to meet strategic goals and objectives, and result in risk of non-compliance with regulations, codes, and standards. This Risk Profile includes building facilities and equipment-related aging and maintenance issues. This document contains information identified by HIROC subscriber healthcare organizations (acute and non-acute) in the Risk Register application to help you in your assessment of this risk.



#### Key controls/Mitigation strategies

- Strategic planning/budgeting
  - ✓ Capital planning and long-term planning for anticipated infrastructure needs
  - $\checkmark$  Annual capital budgeting process
  - $\checkmark$  Dedicated funds allocated for upgrades of aging infrastructure and emergencies
  - Infrastructure and facilities align with the organization's strategic priorities (e.g., service excellence, safety)
  - ✓ Computerized maintenance management system which provides advanced notice of replacement needs and assets nearing end of life (e.g., utilized for medical asset planning)
  - Emergency Department infrastructure planning with expertise in safety and security considered
  - Prioritization of redevelopment or replacement of aging infrastructure across multiple sites based on resource availability
- Funding
  - $\checkmark$  Strong relationship with regional health authorities
  - $\checkmark$  Regular communication with government representatives to increase awareness
  - $\checkmark$  Prioritization of funding requirements
  - $\checkmark$  Continuous efforts to apply for grants and funded infrastructure projects

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- Internal policies and processes
  - ✓ Safety and security of staff and patients are always kept at the forefront when making decisions related to capital planning and equipment purchases
  - $\checkmark$  Formal committee to oversee all capital projects and emergency requests
  - ✓ Regular inspections and assessments to identify potential problem areas (e.g., fire inspections, infrastructure risk assessments, life safety assessments, environmental assessments, etc.)
  - ✓ Formal risk analysis (e.g., matrix) to understand impact of circumstances and urgency
  - ✓ Continuous risk identification and prioritization process for infrastructure upgrades
  - $\checkmark$  Grouping of similar repair costs together to get better pricing/funding
  - ✓ Appropriate level of information about conditions and life expectancy of facilities and equipment are provided to decision makers
  - ✓ Formal preventative maintenance program actively followed, manufacturers recommendations identified
  - Access to knowledgeable and experienced maintenance team and/or engineers
    on call 24/7
  - ✓ Appropriately managed contracted service providers
  - Monitor temperature and humidity in areas such as operating room and medical devices reprocessing, etc.
  - $\checkmark$  An inventory of equipment and infrastructure assets are maintained
  - ✓ Regular alerts and recalls reviews
  - $\checkmark$  Infection control issues are identified and managed as required
  - ✓ Inventory of all manufacturers' warranties
  - $\checkmark$  Spare parts inventory management
  - $\checkmark$  Participation in groups with other facilities regarding planned maintenance
  - Documented plant management to reduce the risk of knowledge loss (e.g. succession planning)

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### Facilities - Aging/Maintenance

- ✓ Contingency plans/Emergency Code procedure and response plans in place including back up equipment (e.g, backup generators)
- ✓ Decommissioning of unsafe equipment
- ✓ Backup equipment (e.g. smaller cooler, additional ventilators)
- Physical controls
  - $\checkmark$  Electrical improvements and red emergency power outlets
  - ✓ Updated plumbing in older buildings
  - ✓ Sprinkler system
  - $\checkmark$  Updated fire alarm system, fire exit door replacement
  - $\checkmark$  Appropriate sewers and storm drainage system
  - ✓ Updated communication system
  - ✓ Roof repairs
  - $\checkmark$  Heating, Ventilation, and Air Conditioning (HVAC) system replacement
  - $\checkmark$  Upgrade security systems such as cameras, building access, and alerts
  - ✓ Oil tank replacement
  - ✓ Floor plan review of current design functionality (use of space designer/architect)
  - $\checkmark$  Workplace hazards monitored and addressed on a timely manner
  - ✓ Signage of any hazards



#### Monitoring/Indicators

- $\checkmark$  % of scheduled preventive maintenance tasks completed on time
- ✓ % of reported broken/hazardous equipment reported which are within the preventative maintenance program
- $\checkmark$  % downtime or % uptime

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- $\checkmark$  # of Infection Prevention and Control (IPAC) audits for specific medical equipment
- $\checkmark$  Hospital occupancy and use of isolation room (flow metrics)
- $\checkmark$  Problem areas and # of maintenance service requests
- ✓ Alerts and recalls-code/standard compliance (e.g. building codes, fire codes, Canadian Standards Association)
- ✓ # capital project requests
- ✓ Budgets/forecasting
- ✓ Missing equipment
- ✓ Workplace hazards
- ✓ Facility conditions (e.g., daily monitoring of HVAC)
- $\checkmark$  Infrastructure projects and their statuses
- ✓ Staff/patient/visitor complaints
- $\checkmark$  Building automation system to monitor equipment and report on performance
- ✓ Regular audits
- $\checkmark$  Periodic inspections by third parties to verify condition of assets
- ✓ Air quality testing results
- $\checkmark$  Emergency code testing results (i.e. code grey, red)
- $\sqrt{}$  # of code grey and/or loss of a critical service/equipment annually
- ✓ Accreditation results

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