



Ontario Renal Network



Chronic Kidney Disease

Emergency Management Planning Guide 2015



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A Message from Rebecca Harvey and Dr. Peter Blake

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To CKD Service Providers,

Each year, in Ontario, we face a number of natural hazards including ice storms, tornadoes, floods and wild fires across regions. These and other hazards may also result in emergency situations for people who live in Ontario, including loss of hydro power, health pandemics, power outages, or chemical and biological disasters. Over the past decade, Ontario has encountered more than 30 natural, health and/or biological disasters which have impacted us and resulted in fatalities, personal injuries, disease outbreak (infection) and/or evacuation. Emergencies can occur suddenly and without warning; we need to be prepared and know what to do in advance. We all have a role to play in being prepared for an emergency.

Service Providers in Ontario are required to have CKD Emergency Management Plans in place at all sites that provide services for people with kidney disease, including the regional program sites, satellites and Independent Health Facilities (IHF). The Ontario Renal Network CKD Emergency Management Planning Guide ('The Guide') is designed to support you to develop and maintain your local emergency preparedness plan. The intent of The Guide is to augment existing Hospital Emergency Preparedness Plans with a focus on the unique needs of people with kidney disease. This guide is structured as a four (4) step process, each containing key information, resources, tools, and recommended actions to support your work.

You will know from experience that Emergency Preparedness is a continuous process of development and improvement that requires working in collaboration with local, regional and provincial partners. During times of disaster, your Program plays a critical role in the Ontario Renal Network to ensure the continuity of care for people living with kidney disease. Let's be prepared together!

Sincerely,



Dr. Peter Blake

Provincial Medical Director, Ontario Renal Network

Rebecca Harvey

Vice President, Ontario Renal Network

INTRODUCTION

EMERGENCY MANAGEMENT PLANNING IN CHRONIC KIDNEY DISEASE (CKD)

Emergencies can occur suddenly and without advance warning. Over the past decade in Ontario, there have been over 30 emergency hazards and disasters impacting local residents, resulting in fatalities, personal injuries, disease outbreak and/or evacuation.

“emergency” means a situation or an impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident or an act whether intentional or otherwise;”

(Emergency Management and Civil Protections Act, R.S.O.. 1990, Chapter E9 www.e-laws.gov.on.ca)

In Ontario, over 22,000 people are currently living with end-stage renal disease and receive pre-dialysis or renal replacement therapy, and over 6,700 people are living with a functioning kidney transplant. People living with end-stage renal disease are dependent upon life-sustaining treatment in the form of dialysis therapy or kidney transplant. Dialysis therapy is provided through peritoneal dialysis or hemodialysis. Whether the emergency is health related, biological, chemical, natural or accidental, a coordinated effort across partners is needed to support CKD patients. Being prepared is the key to a successful response. Everyone has a role to play in being prepared for an emergency.

THE ONTARIO RENAL NETWORK CKD EMERGENCY MANAGEMENT PLANNING GUIDE

Healthcare organizations often develop site-specific emergency management plans to ensure the continuity of healthcare services in the event of an emergency. People living with CKD have unique healthcare conditions requiring specialized clinical care and service support which may not be sufficiently addressed in healthcare organizational emergency management plans. The role of every CKD Service Provider is to ensure local emergency management plans have thoroughly incorporated the unique requirements of the CKD patient population through all stages of the emergency management planning process.

The primary objective of the Ontario Renal Network CKD Emergency Management Planning Guide (EMPG) – “The Guide” – is to define a standardized planning framework necessary to drive local CKD Emergency Management Plan development across all areas of planning: mitigation, prevention, preparedness, response and recovery. The secondary objectives of The Guide are to:

- Ensure the safety of patients, visitors and staff in the event of an emergency;
- Promote awareness of local, regional and provincial roles in emergency management;

- Identify and assess local hazards and risks;
- Develop strategies to shift the ability of a renal program to respond with available resources, deliver an effective and coordinated response and restore renal services to a normal state as soon as possible after an emergency;
- Encourage cooperation and collaboration between organizations and municipalities in the development of local emergency management plans; and,
- Establish a process of annual reviews, updates and ongoing improvement to plans.

The Guide will support CKD Service Providers in the development of a comprehensive CKD Emergency Management Plan through the use of a four (4) step approach that is designed to address the unique requirements of the CKD population:

- Step 1:** Establish a Planning Team
- Step 2:** Complete a Program Capacity and Capabilities Assessment
- Step 3:** Conduct a CKD Hazard Identification and Risk Assessment (HIRA)
- Step 4:** Develop a CKD Emergency Management Plan

Take the time to familiarize and read through the content of The Guide. Each step will detail the key planning objectives, resources and tools developed to support local planning efforts. The use of The Guide will assist CKD Service Providers in ensuring continuity of clinical services and minimize the impact of any future emergency event.

ICONS are used throughout The Guide to highlight key information and actions required as you progress through the planning process. A description of each icon used throughout The Guide is offered in the following table.

ICONS

DESCRIPTION



A green box with an “I” is used to reference key **“Information”** within The Guide.



A dark green box with a “T” details additional **“Tools”** and resources developed to support the local emergency management planning process.



A purple box with an “A” will highlight **“Recommended Actions”** to complete prior to moving on to the next step in the process.



A chartreuse box with an “H” will highlight **“Helpful Hints”** to assist the reader in further understanding the material or completing an activity.



This symbol represents **“Suggested Readings”** relevant to the emergency management planning process. Cited references may be located on-line.

KEY INFORMATION

The Ontario Renal Network CKD EMPG is designed to capture your program's unique CKD requirements and should be used to augment your organization's existing emergency management plan. Be sure to follow the process outlined in The Guide and complete the key planning activities designed to meet the needs of your CKD population.



RECOMMENDED ACTIONS

In preparation for Step 1 of the planning process, it is recommended that you:

1. Review your current local CKD Emergency Management Plan to familiarize yourself with the content and,
2. Consider the unique requirements of your renal program and patients and how these needs can be met in the event of an emergency.



Ontario Renal Network

STEP 1

Establish a Planning Team

"Chance favours the prepared mind."

Louis Pasteur
(Chemist, Microbiologist)

team

STEP 1: ESTABLISH A PLANNING TEAM

OVERVIEW

The Emergency Management and Civil Protections Act (1990) ensures both provincial and municipal governments and agencies have mutually supportive roles in emergency management. Understanding your role in emergency management and the role of others is essential to the planning process.

The objectives of Step 1 in the planning process are as follows:

- Increase awareness and understanding of the roles of various stakeholders in emergency management planning;
- Familiarize planners with the Accreditation Canada Leadership Standards for emergency preparedness and management; and,
- Introduce the concept of mutual aid in CKD Emergency Management Planning.

UNDERSTANDING ROLES: FEDERAL, PROVINCIAL, REGIONAL AND LOCAL

Emergency planning requires a coordinated effort across all levels of government, provincial agencies and local healthcare provider organizations. The Ontario Renal Network is accountable to the Ministry of Health and Long Term Care (MOHLTC) to ensure that all CKD Service Providers have an emergency management plan in place. **Figure 1** shows the relationships between federal, provincial, regional and local governments, agencies, health planners, and healthcare organizations within the context of emergency management. **Figure 2** highlights the key responsibilities in emergency management planning and the support of each partner within the healthcare system.

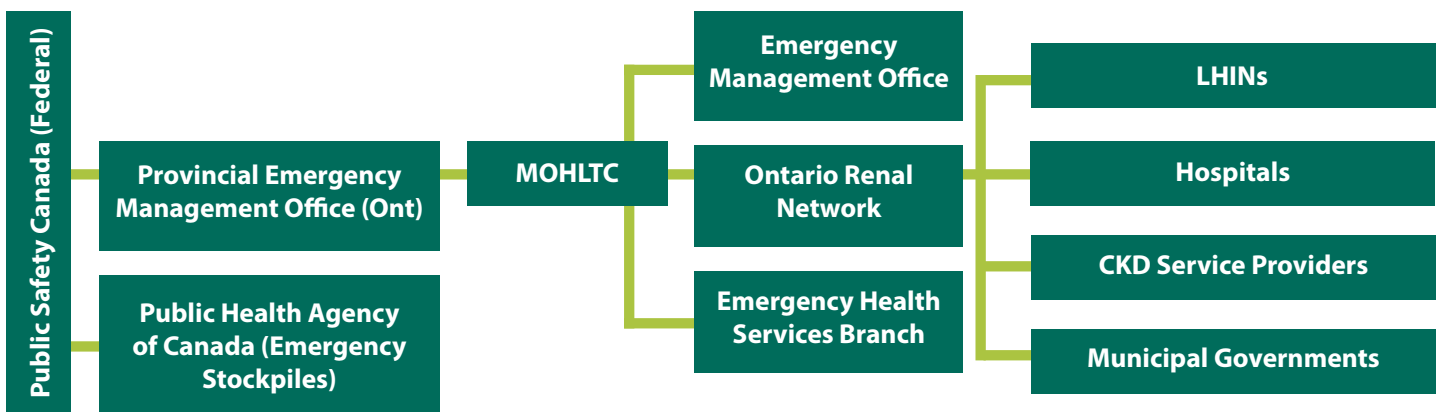


Figure 1 - Federal, Provincial, Regional and Local Roles in Emergency Management

FEDERAL LEVEL

PUBLIC SAFETY CANADA

Jurisdiction over emergency responses associated with air and sea travel, border security, foreign affairs, foreign animal disease control and nuclear safety.

PUBLIC HEALTH AGENCY OF CANADA (PHAC)

Manages the National Emergency Stockpile System accessed by provincial Ministries of Health in the event of an emergency.

PROVINCIAL LEVEL

MOHLTC

Responsible for the Ministry Emergency Response Plan (MERP) specific to human health, disease and epidemics, and health services during an emergency. Publishes other hazard specific response plans (i.e. Ontario Health Plan for Influenza). Collaborates with Health Canada on Federal Nuclear Emergency Plan and First National and Inuit Health Program.

EMERGENCY MANAGEMENT OFFICE (EMO)

Responsible for Provincial Emergency Response Plan (PERP) for Government of Ontario. Designates MOHLTC to develop MERP.

EMERGENCY MANAGEMENT BRANCH (EMB)

Coordinates the MOHLTC emergency management activities; including EMAT services.

EMERGENCY MEDICAL SERVICES (EMS)

Coordinates EMS services provincially.

REGIONAL & LOCAL LEVEL

LHINS

Responsible to the MOHTLC for local health integrated planning of regional healthcare services to meet population needs. Their role in emergency management planning is currently under development.

HOSPITALS

Responsible to develop emergency management plans addressing the risks of disasters and emergencies for their facility.

CKD SERVICE PROVIDERS

Responsible to develop complementary emergency management plans to meet the unique needs of the renal population in the event of an emergency.

MUNICIPAL GOVERNMENTS

Responsible for local emergency response plans. Areas of interest to healthcare providers: power, water, utilities, transportation.

Figure 2 - Federal, Provincial, Regional and Local Responsibilities in Emergency Management

LEADERSHIP STANDARDS

Accreditation Canada is an independent, not-for-profit organization that develops standards and accreditation programs for healthcare organizations designed to improve the quality, safety and efficiency of services delivered. The Qmentum Program offers four core standards focused on organizational services: governance, leadership, infection prevention and control and medication management. The Accreditation Canada Leadership Standards define standards related to emergency preparedness and management; and, provide a framework for the assessment and evaluation of existing CKD emergency plans in order to improve and evolve local emergency plans over time. The Leadership Standards focus on the:

- Identification and analysis of actual and potential risks;
- Development and implementation of plans to prevent and mitigate risk;
- Development, implementation and evaluation of an All-Hazard Emergency Response Plan;
- Development of business continuity plans for critical operations and back-up systems;
- Training and education of patients and providers in relation to the emergency plan; and,
- Involvement of patients and providers in debriefing opportunities to support plan improvements.

A complete list of the Accreditation Canada - Leadership Standards (R1) is included in the Reference Information section of The Ontario Renal Network Emergency Management Guide. It is recommended to refer to the Accreditation Canada Standards, as well as the information and resources provided within this guide to support local CKD emergency management planning efforts.



THE SPIRIT OF MUTUAL AID

Mutual aid is defined as a collaborative effort between local, regional and provincial partners to provide and receive assistance to ensure continuity of healthcare service delivery in the event of an emergency. Emergency management plans should detail how mutual aid is coordinated when local resources, capacity or capabilities would hinder the ability of a CKD Service Provider to effectively ensure continuity of care.

Mutual Aid Agreements (MAA) are one mechanism used to formalize the terms and conditions between partners to augment emergency management plans. In Ontario, Mutual Aid Agreements are used by Fire Departments within a specified region, as one example, so ready access to specialized equipment and personnel is available in the event of an emergency. MAAs may include, but are not limited to, the ability of organizations to share resources (i.e. capital equipment, products), personnel (i.e. staff) and transfer of patients to alternative sites of care (i.e. municipal facilities, other renal facilities). Areas for consideration when establishing a mutual aid agreement are listed in **Figure 3**.

Formal agreements in the form of a MAA may be considered between local healthcare service providers, agencies and facilities within a region when a coordinated effort of resource support is required in the event of an emergency. Commencing in 2015/16, the Ontario Renal Network CKD Operating Funding Agreements will incorporate language to reflect mutual aid accountability between provincial renal service providers in the event of an emergency.

AREAS FOR CONSIDERATION

- Define mutual aid
- Establish minimum criteria for support and conditions for participation
- Identify process for activation and termination of support
- Define roles and responsibilities
- Address right to refusal to support under specific circumstances
- Address reciprocity of mutual aid with no cost incurred
- Address considerations regarding liability to the satisfaction of both parties
- Ensure mutual aid does not impact daily operations of lending facility

Figure 3 - Areas for Consideration when Establishing Mutual Aid

INITIATE EMERGENCY MANAGEMENT PLANNING

In order to be effective, planning should include a broad representation of skills and expertise to support the planning process and work involved. The following are key components required in establishing a planning team and process:

1. Establish a Planning Team
2. Define Team Roles and Responsibilities
3. Establish a Governance Framework
4. Establish Meeting Timelines/Frequencies and Deliverables
5. Assess and Evaluate Your Team's Readiness

Establish a Planning Team

Team membership is best represented by individuals, both internal and external to the organization, who collectively offer the team a broad range of perspectives, knowledge, skills and experience necessary for the development of a comprehensive emergency management plan.



How do you know if you have the right team?

Consider inviting individuals to participate on your team who have direct and indirect responsibility in the delivery of care, who represent teams and organizations both internal and external to your facility.

Define Team Roles and Responsibilities

A variety of tools are available to support local teams in assigning accountability and responsibility. The RACI (Responsible Accountable Consulted Informed) model is one example of a framework used to define team members' level of participation required to complete key tasks and deliverables assigned. Team members may have different levels of participation depending on the activity; however, usually only one individual is accountable for the overall plan.



When using the RACI model, remember only one individual has accountability for the overall plan.

However, any number of individuals may be held **responsible** to support completion of assigned tasks or activities. Individuals who are **consulted** should bring knowledge and expertise to the discussions and decisions to be made. **Informed** team members are those who may not participate on a regular basis, however, maintaining open lines of communication is important for alignment and support needed for the project.

Establish a Governance Framework

Planning is the work completed by teams; governance provides the organizational structure for teams to do the work. A governance framework offers clarity and direction; defines terms of reference; assigns individual and team responsibilities, establishes the planning cycle and timelines; and, provides a forum for discussion, debate and decision making.



Governance frameworks do not need to be complex , and, ultimately, the structure will

depend on the size of the program and the number of team members available to support the planning process. Take the time to establish a governance framework that meets the needs of your program.

Establish Meeting Timelines/ Frequencies and Deliverables

The process of CKD emergency management planning should be incorporated into your organizations' annual business planning cycle and include the following key activities: (i) annual reviews and updates to local plans; (ii) staff training and education; (iii) emergency management exercises and debriefing opportunities; and, (iv) renal patient awareness campaigns. Establishing a regular planning process to initiate and ensure ongoing review and evolution of emergency management planning is essential.



Emergency management planning is a dynamic process and should be integrated within the normal business planning cycle versus being viewed as a standalone activity.

RECOMMENDED ACTIONS

The first step of planning is to establish a planning team and disciplined process. The Planning Resource Checklist is a questionnaire designed to help identify and detail requirements to establish a team, team membership, roles, governance and meeting cadence.



Complete **Appendix A - Planning Resource Checklist** to ensure you have the right membership, governance structure, and focus required to begin the planning process. The tool asks a series of questions requiring a "Yes" or "No" response. Consider "Yes" responses a potential area of strength and "No" responses as potential gaps to be addressed. Use the "Action Required" column to document additional notes or next steps required. Additional planning reference information is available in R5: Governance and Planning. Refer to this reference information sheet when you begin emergency management planning in Step 3 of The Guide.

After completing the checklist, review the assessment and begin to recruit team membership; secure leadership support; establish roles, responsibilities and governance; and, using the resources provided, initiate the planning process. A list of suggested readings following this section offers a number of resources on emergency management planning which may assist in local planning efforts. In Step 2 of The Guide, teams will complete a detailed assessment of the CKD Program Capacity and Capabilities.



SUGGESTED READINGS

Public Safety Canada (2010). Emergency Management Planning Guide 2010 – 2011. Accessible on-line at

<http://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/mrgnc-mngmnt-pnnng/index-eng.aspx>

Public Safety Canada (2011). National Emergency Response System – January 2011. Accessible on-line at

<http://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/ntnl-rspns-sstm/ntnl-rspns-sstm-eng.pdf>

Ministry of Health and Long-Term Care's Emergency Response Plan (May 2013). Accessible on-line at

http://www.health.gov.on.ca/en/pro/programs/emb/pan_flu/docs/emerg_resp_plan.pdf

Emergency Management Ontario. Emergency Management Doctrine for Ontario (2010). Accessible on-line at

<https://www.emergencymanagementontario.ca/stellent/groups/public/@mcscs/@www/@emo/documents/abstract/ec081624.pdf>

Emergency Management and Civil Protection Act. R.S.O. 1990, Chapter E.9. Accessible on-line at

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90e09_e.htm

Accreditation Canada website <http://www.accreditation.ca/>

Christian, M.D., Kollet, D. and Schwartz, B. (2005). Emergency preparedness: what every healthcare worker needs to know. Canadian Journal of Emergency Medicine, Volume 7 (5), pp. 330 – 337.



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STEP 2

Complete a Program Capacity and Capabilities Assessment

"Everyone deserves a chance to survive."

James Hubbard, MD
(*"The Survival Doctor, Author, Family Physician"*)

assess

STEP 2: COMPLETE A PROGRAM CAPACITY AND CAPABILITY ASSESSMENT

OVERVIEW

Planning for an emergency can be complex. Emergency management planning is designed to identify risk and ensure that contingency plans are developed to provide continuity of clinical care and service in the event of an emergency. The Ontario Renal Network CKD EPMG is designed to assist local teams to focus on the unique requirements of the CKD population and program needs across key areas of emergency management planning.

During emergency events, an increased demand on services and resources is common. Understanding the current CKD program capabilities and capacity by way of a comprehensive assessment is essential to optimize the use of available resources in the event of an emergency. In this chapter, a series of CKD Program Capabilities and Capacity Assessment tools will quickly assess the unique requirements of a CKD Service Provider in a number of key areas. Results from each assessment will highlight areas of strength, opportunities for improvement, and identify areas where further emergency management planning is required.

The objective of Step 2 is to complete a comprehensive assessment of the current CKD program capacity and capabilities using the resources provided. The program areas to be assessed in detail include the following:

- Clinical Services Listing;
- Priority Service Areas;
- Surge Demand and Capabilities;
- Critical Infrastructure; and,
- Dialysis Equipment and Supplies.

As you read through the following details, each program area to be assessed will have corresponding resource(s) cited and available in the identified appendix.

PROGRAM CAPACITY AND CAPABILITIES ASSESSMENT AREAS

Prior to an emergency event, having a detailed record of the current program service areas, defined priority clinical service areas and emergency service level capacities is essential for planning purposes. The renal program capabilities and capacity assessment will utilize the following resources:

TOOLS AND TEMPLATES

- Clinical Services Listing (Appendix B)
- Priority Services Checklist (Appendix C)
- CKD Surge Demand and Capabilities Checklist (Appendix D)
- Critical Infrastructure Checklist (Appendix E)
- Emergency Renal Product Supply Checklist (Appendix F)
- Dialysis Capital Equipment Inventory (Appendix G)



Clinical Services Listing

Appendix B – Clinical Services Listing will help to document a summarized view of current program clinical services. Clinical service details within the assessment include service by site/location, service level capacity (normal, emergency) and key infrastructure details of each service area (i.e. power supply, water supply, oxygen, suction and isolation capabilities).



The **Clinical Services Listing (Appendix B)** provides a brief description of the template definitions, instructions for use and an example for reference. The completed template should be incorporated into the final CKD Emergency Management Plan documentation and be updated as required over time.

The **Clinical Services Listing** template is designed to capture a summarized view of current program clinical services offered across all program

Priority Clinical Service Areas

Every CKD Service Provider should utilize a consistent method to prioritize patient types and provide clinical services. **Appendix C – Priority Services Checklist** is a questionnaire designed to assess existing emergency management plans in key areas including: Priority Patient Types, Priority Clinical Services, and Triage and Screening Processes to be used during an emergency. Upon completion of this assessment, local teams should utilize the results to establish action plans to address any gaps and ensure the content is incorporated into local emergency management plans.

Every CKD Emergency Management Plan should define Priority Patient Types, Priority Clinical Services, and Triage and Screening Processes to be used during an emergency. Leverage existing hospital emergency plans and resources, as available. Following the completion of **Appendix C – Priority Services Checklist**, note areas of strength and opportunities to improve CKD plans.

CKD Surge Demand and Capability

Emergency events such as natural disasters or health pandemics can increase demands on clinical services and resources. Determining the capability of the CKD Service Provider to expand beyond normal expected service capacity is essential to meet increased demands for clinical care in response to an emergency. Surge demand refers to an increase in patient volumes during an emergency; surge capability refers to the ability to meet a broad range of clinical care requirements of the patient population during an emergency. While not all emergencies are predictable, the need to assess CKD surge demand and capabilities is essential in the development of mitigation, preparedness and response plans for CKD. **Appendix D – The CKD Surge Demand and Capability Checklist** is a questionnaire designed to assist local teams in assessing the CKD Service Provider's ability to manage increased demands on resources and services in the event of an emergency.

Understanding surge demand and capabilities, regardless of hazard type, are critical in order to develop comprehensive preparedness plans which address surge demand and capabilities required of a local CKD Emergency Management Plan.

Critical Infrastructure

Creating contingency plans designed to address a potential disruption in critical infrastructure and services is one of the unique considerations in emergency management planning for CKD Service Providers. **Appendix E – Critical Infrastructure Checklist** is a questionnaire designed to assess the following key areas: emergency power and water supply; laboratory and radiology support; and HVAC and biohazard waste management services.



Critical infrastructure failures can be catastrophic during an emergency event. Local hospital or facility emergency plans may already address the critical infrastructure supports required in the event of an emergency. CKD Service Providers should assess local facility plans and determine if the critical infrastructure support detailed will be sufficient to maintain priority clinical services for CKD patients during an emergency event.

Dialysis Equipment and Supplies

During an emergency, dialysis equipment and supplies will need to be easily located and potentially transported to alternative sites of care to ensure continuity of clinical care. In addition, the need to identify and maintain the volume of local emergency dialysis equipment and product supply is essential. Throughout the literature, a minimum of a four (4) week product supply is a common standard. **Appendix F – Emergency Renal Product Supply Checklist** will assess emergency supply, storage, re-supply capabilities and vendor support available in the event of an emergency. **Appendix G – Dialysis Capital Equipment Inventory** will list details of current inventory.

RECOMMENDED ACTIONS

Using the tools and templates provided in the appendices, complete the Program Capacity and Capabilities Assessments to evaluate key components required for your local CKD Emergency Management Plan.

- Clinical Services Listing – Appendix B
- Priority Services Checklist – Appendix C
- CKD Surge Demand and Capabilities Checklist – Appendix D
- Critical Infrastructure Checklist – Appendix E
- Emergency Renal Product Supply Checklist – Appendix F
- Dialysis Capital Equipment Inventory – Appendix G

After all assessments are complete, local teams should review the results and complete a gap analysis. The results of the program capacity and capabilities assessment and gap analysis will be utilized in Step 4 of The Guide to prioritize ongoing planning efforts required of the CKD Emergency Management Plan.



Ensure when developing contingency plans for dialysis equipment and supplies that estimated volumes will meet priority clinical service areas and capacity anticipated in the event of an emergency. Use the results from **Appendix F – Emergency Renal Product Supply Checklist** to identify opportunities to improve local planning efforts as it relates to dialysis equipment and supplies.





STEP 3

Conduct a Hazard Identification and Risk Assessment

"Opportunity doesn't make appointments, you have to be ready when it arrives."

Tim Fargo
(Author)

identify

STEP 3: CONDUCT A CHRONIC KIDNEY DISEASE (CKD) HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA)

OVERVIEW

Assessing hazards and their associated risks is a key step in the emergency management planning cycle. Hazards are events which may be perceived or real; however, all could have an impact on the community and the ability to respond effectively in the event of an emergency. Not all hazards are created equal and the impact of any one hazard may be very different based on the community or resources available, population characteristics, local economy, geography or the proximity of industry to the healthcare facility. In addition, documenting current capacities and capabilities from Step 2 will help support future planning efforts when resources may be constrained in the event of an emergency. The objective of Step 3 is to complete a comprehensive hazard identification and risk assessment using the resources provided.

HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Hazard Identification and Risk Assessment (HIRA) is a risk management process (Figure 4) applied to ensure that a consistent method is used to assess, evaluate and prioritize risks in order to develop mitigation strategies specific to program needs. Hazard mitigation is important to ensure losses are minimized and risks are reduced in advance of an emergency. Building partnerships with members from your program, organization, municipal offices, local emergency service providers and the community will support the development of mitigation strategies not previously addressed. Four key steps are involved in completing a HIRA for your CKD Program:



- Step 1: **Hazard Identification:** list all hazards
- Step 2: **Risk Assessment:** assess likelihood and impact
- Step 3: **Risk Analysis:** quantify each risk
- Step 4: **Monitor and Review:** review and update

Figure 4 - Hazard Identification and Risk Assessment Process

When completing a HIRA for CKD it is important to ensure that a broad range of potential and real threats are assessed so as not to become focused primarily on one critical area. For example, a CKD Service Provider may have defined a comprehensive strategy to manage power failures as a key hazard and risk; however, may not have considered the potential hazard of a contaminated incoming water supply for hemodialysis treatments in the event of an emergency.

A CKD HIRA excel based workbook has been developed to support your local hazard risk, assessment and analysis process and has been included as Appendix H in this Guide. The content and framework presented in this workbook represents a CKD adaption of Emergency Management Ontario’s (EMO) 2012 HIRA workbook. Note, some definitions and categories have been modified to better align to CKD requirements. When completing the CKD HIRA process, it is important to ensure that all information used to assess hazards is reliable, accurate and current. Remember, risks are not the same as issues. Issues may drive risk, but are not risks in and of themselves. Further details on how to complete the Risk Analysis process are included in **Appendix H – CKD Hazard Identification and Risk Assessment (HIRA) Workbook**. The following highlights each step of the HIRA process for easy reference:

Step 1: Hazard Identification

Identifying a list of potential and real hazards is the first step in the process. Any hazard has the potential to evolve into a disaster which may or may not be predicted in advance. Leveraging any current facility, program or municipal HIRA will support this step of the process. For the purpose of completing a HIRA, hazards have been classified as natural, accidental, environmental, technological or health related. A list of hazard types by category is provided in **Table 1** below:

Category	Hazard Types
<i>Natural</i>	Tornadoes, Hurricanes, Ice Storms, Wildfire, Floods, Earthquakes, Extreme temperatures
<i>Accidental</i>	<i>Intentional:</i> Civil riots, Acts of Terrorism, War
	<i>Non-intentional:</i> Oil or natural gas explosion; Airplane crash, Nuclear Plant Disaster
<i>Technological</i>	IT, Communications, Electrical, Heating, Cooling or Water Systems Failures
<i>Health Related</i>	Epidemics, Outbreaks, Mass Casualties

Table 1 - Hazards: Category and Type

As you familiarize yourself with the **CKD HIRA Workbook (Appendix H)**, you will see under the tab “Facilities HIRA Template (CKD)” a prepopulated list of hazards. Each hazard listed is not required to be assessed; however, each hazard has been given a recommendation of Mandatory, Preferred or Optional in order to provide flexibility in the use of the tool across all CKD Service Providers. The workbook also offers users the ability to enter unique local hazards, not previously listed if required.

TOOLS AND TEMPLATES

- CKD HIRA Workbook (Appendix H)
- CKD HIRA Case Example (Appendix I)
- CKD HIRA Instructions for Use (Appendix J)



Table 2 below details the three types of recommendations found in the CKD HIRA Workbook.

HIRA

Recommendation

Definition

Mandatory

Hazards in this category have been listed as **essential** to review based on a greater likelihood of occurrence in Ontario and impact on a CKD Service Provider’s ability to ensure continuity of care. A select number of hazards have been listed as mandatory.

Recommended

Hazards in this category are listed as **important** to review and determine the likelihood of local impact to the CKD Service Provider based on local probability of the hazard occurring. Not all hazards listed need to be assessed and local teams need to evaluate the number of hazards they should assess for their program.

Optional

Hazards listed in this category are **optional** to review and may be more local in nature, or may not directly impact the ability to continue to deliver CKD care. Not all hazards listed need to be assessed and local teams need to evaluate the number of hazards they should assess for their program.

Table 2 - Three Recommendation Types Used in the CKD HIRA Workbook

Research information on local hazards relevant to your location by searching a variety of public reports, government and public websites, environmental scans and municipal offices. When completing the CKD HIRA process, it is important to ensure that all information used to assess hazards is reliable, accurate and current. Risks are not the same as issues. Issues may drive risk, but are not risks in and of themselves.



Step 2: Risk Assessment

During Step 2, all identified hazards are further assessed for risk using three variables: (i) frequency (likelihood of hazard occurring), (ii) consequence (impact of hazard), and (iii) change in risk (dynamic nature of the hazard occurring over time). The CKD HIRA Workbook has been formatted to provide both a standardized method and approach to assess each hazard individually, and automatically calculate a total risk score for each hazard assessed. The CKD HIRA Workbook (Appendix H) will walk you through the Risk Assessment process for each hazard identified as depicted in **Figure 5** below.

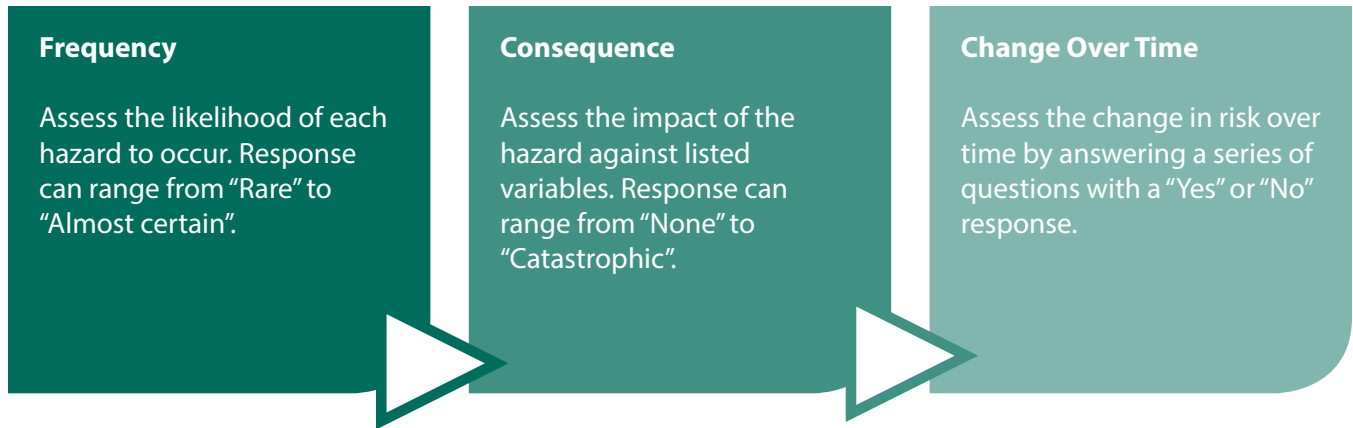


Figure 5 - Risk Assessment Process

Conducting a CKD HIRA is a team exercise and may require a series of meetings to complete. Results obtained will vary by likelihood of occurrence of the hazard and the potential impact on CKD care.



Step 3: Risk Analysis

A risk analysis ranks each hazard identified based on the risk assessment completed in order to prioritize the development of mitigation/prevention or preparedness strategies for your local CKD Emergency Management Plan. Building upon the work from the previous two steps, the total risk score will be automatically calculated using the formulas within the workbook, and the results will be presented in two formats: (i) table and/or (ii) graph.

Figure 6 offers an example of how individual hazards are ranked by total score based upon inputs from the risk assessment. A risk analysis summary divides results by those identified as mandatory vs non-mandatory (preferred or optional).

Mandatory Assessments		Non-Mandatory Assessments	
ORN HIRA Recommendation	Mandatory	ORN HIRA Recommendation	(Multiple Items)
Local Hazard	Yes	Local Hazard	Yes
Row Labels	Sum of Total Risk Score	Row Labels	Sum of Total Risk Score
Extreme	235	Extreme	144
Human health emergency	96	Snowstorm/blizzard	72
Water emergency (supply)	75	Extreme temperatures	72
Energy emergency (supply)	64	Very High	90
High	36	Terrorism/ CBRNE	45
Drinking water emergency	36	Oil/natural gas emergency	45
		High	108
		Tornado	40
		Geomagnetic storm	36
		Hurricane	32
		Moderate	54
		Freezing rain	30
		Cyber attack	24
		Low	84
		Agricultural and food emergency	12
		Transportation emergency	12
		Lightning	12
		Forest/wildland fire	12
		Windstorm	12
		Hazardous materials incident	12
		Landslide	12
		Very Low	26
		Flood	10
		Explosion/fire	10
		Land subsidence	4
		Earthquake	2

Figure 6 - Example of a Risk Analysis Summary

Figure 7 offers an example of a risk analysis summary with results presented in graph form. The size of the circle is representative of the total score for the risk assessed.

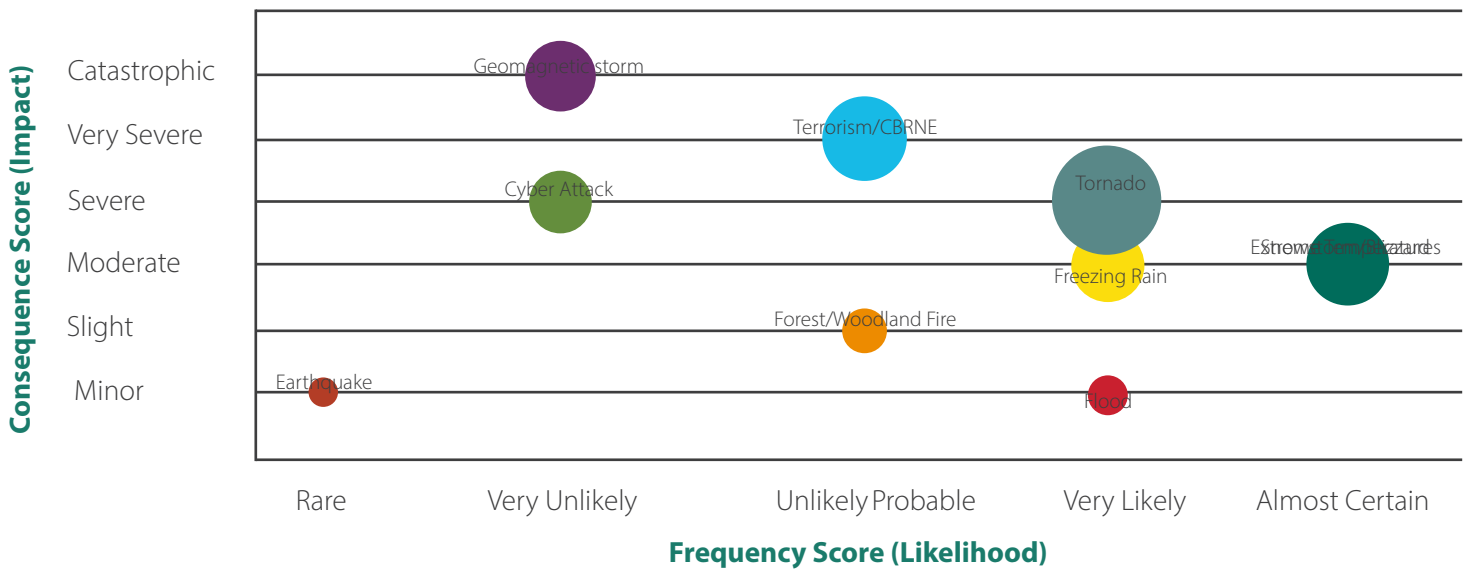


Figure 7 – Examples of a Risk Analysis Summary - Graph

The **Appendix H - CKD HIRA Workbook** will automatically prioritize each hazard by calculating a total risk score using formulas embedded within the tool. Each summary result (table or graph) can be located within the CKD HIRA Workbook under the following tabs: Facility HIRA Table, Facility HIRA Graph.



Step 4: Monitor and Review

As previously mentioned, not all hazards are predictable and many are dynamic in terms of both the likelihood and impact. The last step in completing a CKD HIRA is the requirement to routinely monitor and review hazards and re-evaluate risks on an ongoing basis.



An annual review of your facility's CKD HIRA is recommended as a minimum standard. Step 4 of The Guide will require teams to establish an annual review process and an ad-hoc review process (debriefing) after an actual emergency as two ways to routinely reassess hazards and associated risks.

RECOMMENDED ACTIONS

Complete a CKD HIRA for your program using the tools and resources provided:

1. Read the CKD HIRA Instructions for Use (Appendix J) prior to starting your local hazard and risk assessment;
2. Review the definitions included under the first tab;
3. Read all instructions on how to complete a CKD HIRA using the CKD HIRA Workbook (Appendix H) provided;
4. Use the CKD HIRA Workbook (Appendix H) to complete a hazard identification and risk assessment for your program; and,
5. Use the results to prioritize contingency planning required in Step 4 of The Guide.





STEP 4

Develop a Chronic Kidney Disease (CKD) Emergency Management Plan

"One of the tests of leadership is the ability to recognize a problem before it becomes an emergency."

Arnold H. Glasgow
(Author)

plan

STEP 4: DEVELOP A CHRONIC KIDNEY DISEASE (CKD) EMERGENCY MANAGEMENT PLAN

OVERVIEW

Healthcare organizations and facilities often develop local emergency management plans to address facility-wide emergencies which may pose a risk to the continuity of services. CKD Emergency Management Plans are extensions of the healthcare organization emergency management plans, and focus on addressing the unique considerations of a renal program. CKD Emergency Management Plans should reduce overall risk, improve responsiveness, ensure effective resource utilization and detail actions required to ensure continuity of clinical service. The objective of Step 4 is to utilize prior program assessments (Step 2 and 3) to develop the CKD EMP content including the key components detailed below.

KEY COMPONENTS

Up to now, a comprehensive assessment of program hazards, risks, capacity and capabilities has identified areas where detailed emergency management planning may be required. Results from the assessments should be used to prioritize planning activities necessary to develop plans which address all phases of emergency planning.

The key components required of a comprehensive CKD Emergency Management Plan are listed in **Table 3** below and should be incorporated within each local plan. The key components listed in **Table 3** are not intended to be exhaustive; therefore, local discretion to add relevant content to CKD EMPs as required is recommended. Broad primary goals for each key component are provided as a guide in the development of a CKD Emergency Management Plan.



A detailed description of the benefits, key activities, timing and anticipated outcomes of each stage of the emergency management planning process is provided under Reference Information **R3 – Emergency Management Planning Process**.

Key Component

Priority Clinical Services
(Appendices B, D, F)

Primary Goal

To identify and differentiate between essential and non-essential renal clinical services and supplies required to ensure continuity of care in the event of an emergency.

Complete a Clinical Services Listing and prioritize how services may be organized and delivered in different ways; be as site specific as required; and, manage additional capacity (surge) requirements within each area of the program.

Key Component

Primary Goal

Priority Patient Groups
(Appendix C)

To develop a fair and consistent approach to prioritizing patient needs and provide priority clinical services in the event of an emergency.

Triage and Screening
(Appendix C)

To develop a standardized process for triage and screening of renal patients by priority patient groups and priority renal clinical service areas for use in the event of an emergency.

Emergency planning should also consider physical space requirements, the use of standardized screening tools, and health record documentation tools required of triage and screening activities.

Critical Infrastructure
(Appendix E)

To maintain essential critical infrastructure necessary for program operations.

Detailed contingency plans should address the following areas:

- *Emergency power to priority renal clinical service areas*
- *Emergency water supply for hemodialysis treatment in the event of water treatment system failure, contamination of incoming water supply and total failure (lack of) incoming water supply*

The following areas should also be considered and plans developed if renal service support has not been previously included within the hospital/facility emergency preparedness plans:

- *Biohazard waste removal*
- *Laboratory services*
- *Radiology and diagnostic imaging services*

Dialysis Equipment and Supplies
(Appendix F)

To define minimum levels of emergency dialysis equipment and supplies necessary to ensure continuity of clinical care in the event of an emergency.

Emergency supply of dialysis equipment and supplies should include supplies required to sustain priority clinical services in the event of an emergency. Emergency plans should address capital equipment requirements, renal therapy product consumable supplies and renal drug supplies.

Hazard Management
(Appendix H)

To develop plans necessary to mitigate, prevent or prepare for identified hazards and risks based on risk assessment.

Emergency planning should detail plans required to address natural, accidental or pandemic planning.

Key Component

Primary Goal

Emergency Staffing Plans
(Appendix M)

To define the minimum staffing requirements by role and function required in the event of an emergency by priority clinical service area.

Emergency staffing plans should take into consideration compounding variables such as reduced staff availability, key roles and responsibilities, deferred responsibilities, and available staffing support.

Alternative Sites of Care
(To be developed locally)

To identify potential alternative sites for priority clinical services and detailed plans required to ensure continuity of clinical services in the event of an emergency.

Emergency planning should consider alternative sites of care for priority renal clinical services both within and external to an organization. Capacity and capability assessments of alternative sites should inform detailed plan requirements.

Communications
(Reference Information – R4)

To develop an emergency CKD communications plan for staff, patients and families.

Emergency plans should always include: key program updates, current key contact information, clearly defined communication processes and alternative methods of communication available in the event primary communication channels are not functioning in an emergency.

Rapid Transport
(To be developed locally)

To establish capabilities to ensure rapid transport of patients and staff in the following ways:

- *Emergency transfer of patients to in-patient unit*
- *Emergency transfer of patients and staff to alternative sites of care*

Training and Education
(To be developed locally)

To develop a comprehensive training and education program for:

- CKD Patients and Family Members/Caregivers
- Program Staff

Consider how training and education can be incorporated into an annual cycle of activities regarding emergency preparedness for your program.

Partnerships
(To be established locally)

To identify and detail potential resources and support available from local, regional and provincial partners and incorporate into local plans.

Consider how to expand emergency resources and response support from community organizations, agencies and municipalities not previously identified in existing plans.

Table 3 - Components of a CKD Emergency Management Plan

ADDITIONAL PLANNING RESOURCES

In addition to the program assessment tools, the following planning tools have been developed and are available in the Appendix/Reference sections of The Guide.

TOOLS AND TEMPLATES

- CKD HIRA Workbook (Appendix H)
- Emergency Contact Information List (Appendix K)
- Staff Planning: Roles and Responsibilities (Appendix L)
- Staff Planning: Operational and Emergency FTE Requirements (Appendix M)
- Annual Training and Education Checklist (Appendix N)
- Developing Communication Plans for CKD (R4)



Emergency Contact Information and Communication

In the event of an emergency, ready access to accurate and current key contact information and lists is critical to coordinate clinical care and team effort. Often during emergencies, normal channels of communication can be out of service and alternative strategies need to be developed. The focus of this review will be to ensure key contact information is documented and incorporated into your local emergency management plan.

Appendix K – Emergency Contact Information List template is provided to capture, in one tool, the key contact information required in the event of an emergency. Once finalized, this template should be routinely updated and included within local emergency management plans.

Ideas and examples for developing a communication plan are available in **Reference 4 – Developing Communication Plans for CKD**.



Staff Planning

In the event of an emergency, the demand on existing resources may cause constraints requiring contingency planning to ensure continuity of priority clinical service and care. The following resources will help to detail the existing renal program staff roles and responsibilities and staff planning models in order to identify contingency plans which may need to be considered in the event of an emergency:

- Staff Key Roles and Responsibilities
- Staff Planning – Regular Operational FTE Requirements by Program Service Area
- Staff Planning – Emergency FTE Requirements by Priority Program Service Area

Annual Training and Education

Being prepared for an emergency involves advance training and practice. A critical component of a CKD EMP is the development of a training and education plan. Emergency preparedness training and education for staff and patients should be incorporated into the programs' annual planning cycle.

Additional key principles to consider in developing a training and educational plan include:

- Training programs should have learning objectives and criteria to evaluate effectiveness;
- Training exercises should be scheduled to provide all staff the opportunity to learn and participate;
- Training should test current plan effectiveness;
- Training participants should be solicited for feedback to identify opportunities for improvement;
- Training should utilize a variety of training methods to familiarize staff with your local CKD EMP; and,
- Training should be provided to CKD patients and caregivers on emergency preparedness.




Appendix L – Staff Planning: Roles and Responsibilities template is provided to detail key responsibilities by service area for all renal program staff by job title in the event of an emergency.

Appendix M – Staff Planning: Operational and Emergency FTE Requirements template is provided to detail emergency staffing requirements for priority service areas.

Annual ongoing testing and maintenance of the CKD EMP should include a comprehensive review of CKD HIRA results, program capabilities and capacity assessments, training program and exercises, debriefing opportunities and plan revisions as required.

CKD EMPs should be routinely reviewed:

- After an emergency event;
- After a change to the hospital/facility emergency management plans; and,
- After any change to CKD program services and/or infrastructure.



Appendix N – The Annual Training and Education Checklist is a questionnaire used to identify current capabilities with respect to staff and patient emergency preparedness training and exercises.



RECOMMENDED ACTIONS

The Ontario Renal Network CKD Emergency Management Planning Guide offers a framework for emergency planning for CKD Service Providers through the use of standardized assessment tools, templates, reference information and key content required of all emergency plans. The Guide is not intended to provide planning details as local planners need to consider the context of local hazards, capabilities, resources and existing plans in place.

The key concepts to consider in the development of a CKD EMP are:

- Complete a detailed assessment of program capacity and capabilities; and, hazards and risks;
- Complete a gap analysis and identify opportunities to improve upon existing local CKD EMPs;
- Prioritize planning requirements to guide the planning process;
- Utilize all available tools, workbooks and reference information to support team discussions;
- Detail mitigation and prevention strategies designed to minimize, reduce or eliminate risks identified;
- Develop preparedness strategies designed to support improved response and recovery during and after an emergency; and,
- Develop a CKD EMP annual review and training program for CKD staff and patients.



CONCLUSION

THE ONTARIO RENAL NETWORK CKD EMERGENCY MANAGEMENT PLANNING GUIDE

The primary objective of the Ontario Renal Network CKD EMPG is to provide a standardized framework to support CKD emergency management planning. The four (4) step approach included in The Guide focuses on the unique requirements of the CKD population.

- Step 1:** Establish a Planning Team
- Step 2:** Complete a Program Capacity and Capabilities Assessment
- Step 3:** Conduct a CKD Hazard Identification and Risk Assessment (HIRA)
- Step 4:** Develop a CKD Emergency Management Plan

The role of every CKD Service Provider is to ensure that local emergency management plans have thoroughly incorporated the unique requirements of the CKD patient population through all stages of the emergency management planning process. Through the use of the tools, templates and resources provided, detailed hazard, risk and program assessments will help to identify, prioritize and initiate emergency management planning to ensure the continuity of clinical services.



Appendix O – The Final Checklist can be used as a reminder of the various steps and key actions required throughout The Guide to support the development of local CKD Emergency Management Plans.



Ontario Renal Network

Appendices

prepare

Planning Resource Checklist

Understanding your role and the roles of others is key in emergency management planning. The planning process should include a broad representation of skills and expertise necessary to support the work involved in the development of emergency management plans. Complete the following planning resource checklist to assess and evaluate your team's readiness.

Key Areas to Consider

Establish a Planning Team	Yes	No	Action Required
Do you have a program administrative leader identified and assigned who is accountable for the development of a CKD Emergency Management Plan?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have a Physician Leader (Nephrologist) who will provide medical advice and direction as required throughout the planning process?	<input type="checkbox"/>	<input type="checkbox"/>	
Does your team membership include individuals who have direct accountability to deliver patient care within your program?	<input type="checkbox"/>	<input type="checkbox"/>	
Does your team membership include individuals who have indirect accountability to support the delivery of patient care within your organization?	<input type="checkbox"/>	<input type="checkbox"/>	

Establish a Planning Team (Cont'd.)	Yes	No	Action Required
--	------------	-----------	------------------------

Will your planning team include a CKD patient representative?	<input type="checkbox"/>	<input type="checkbox"/>	
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Will your planning team include any representatives from the local municipalities and/or emergency service providers? (i.e. Public Utilities, Emergency Medical Services)	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Will there be a need to expand your team's membership to include ad-hoc members, not previously listed, to support the planning process?	<input type="checkbox"/>	<input type="checkbox"/>	
--	--------------------------	--------------------------	--

Have all identified team members been successfully recruited to support the planning process?	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Define Team Roles and Responsibilities	Yes	No	Action Required
---	------------	-----------	------------------------

Using the RACI model for each team member identified, have you clearly identified their roles and responsibilities as it relates to the planning process?	<input type="checkbox"/>	<input type="checkbox"/>	
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Establish a Governance Framework	Yes	No	Action Required
---	------------	-----------	------------------------

Do you have an existing governance framework that works well for your renal program during a planning process?	<input type="checkbox"/>	<input type="checkbox"/>	
--	--------------------------	--------------------------	--

Do you have an Executive Sponsor for the CKD emergency management planning process?	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Establish a Governance Framework (Cont'd.)	Yes	No	Action Required
--	-----	----	-----------------

Will your planning team include small working groups who will address a specific issue or plan requirements; and, who have accountability to report back to the broader planning team?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Is your decision-making process clear?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Have you considered how conflict will be resolved amongst the team throughout the planning process?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Establish Meeting Timelines and Deliverables	Yes	No	Action Required
--	-----	----	-----------------

Have you determined the frequency of planning meetings?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Have you scheduled meetings well enough in advance to ensure adequate attendance?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Do you have standard tools/resources (i.e. Agenda, Meeting Minutes) to support meeting effectiveness?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Notes

Clinical Services Listing

The Clinical Services Listing template is used to capture a summarized high level view of current program services offered at each site (details in the table below) for inclusion in your local CKD Emergency Management Plan such as the following:

- Service Site
- Service Location
- Service Description
- Capacity (normal and emergency)

Template Glossary of Terms

Term	Description
------	-------------

<i>Service Site</i>	Name of facility
<i>Service Location within Site</i>	Name of location within facility
<i>Description</i>	Details specific program service offered
<i>Capacity</i>	Normal: Expected normal patient volumes for clinical service area
	Emergency: Potential or surge patient volumes for clinical service area in the event of an emergency (Refer to Appendix D – CKD Surge Demand and Capabilities Checklist)
<i>Infrastructure</i>	Power Supply: Detail type available for treatment
	Water Supply: Detail available water supply for treatment
	Oxygen Outlets: Detail # and type available
	Suction Outlets: Detail # and type available
	Isolation Available: Indicate whether isolation capabilities are available
<i>Comments</i>	Additional notes may be added here for reference (i.e. AED available)

RECOMMENDED ACTIONS

1. Using the template provided, complete one template for each site where renal program services are offered.
2. Incorporate the completed template into your final CKD Emergency Management Plan.



Clinical Services Listing by Site - Example

An example of a complete template is below for reference.

Service Site Name:

Renal Program ABC

Location	Description	Capacity		Infrastructure Details					Comments
		Normal	Emergency	Power Supply	Water Supply	Oxygen Outlets	Suction Outlets	Isolation Available		Additional Notes
	Treatment Area B – In-centre HD	24	30	15 Amp Duplex Regular Receptacles 15 Amp Duplex Emergency Receptacles	Main RO Water Supply	24	0	2 rooms, negative pressure available	AED on site
	Room 641 Off Unit HD	2	2	15 Amp Duplex Regular Receptacles	Portable RO Only	2	2	None	
	Clinic CKD	6	10	15 Amp Duplex Regular Receptacles	None	3	1	None	
	East Tower PD Clinic Rooms # 4,5,6	3	6	15 Amp Duplex Regular Receptacles	None	0	0	None	
	East Tower – HHD Clinic Room 7,8	2	4	15 Amp Duplex Emergency Receptacles	Portable RO Only	2	0	None	Cardiac Arrest Cart available on floor
	HD Isolation Room # 22	1	1	15 Amp Duplex Regular Receptacles 15 Amp Duplex Emergency Receptacles	Main RO	1	1		

Floor 2F

Priority Services Checklist

A **Priority Services Checklist** is provided to support and identify future planning required via assessment of current program capabilities as it relates to priority of patient groups and clinical services in the event of an emergency. The need to differentiate between the type and level of clinical service provided in the event of an emergency, identify priority patient groups, and define triage and screening processes is required in the development of effective response plans.

Key Areas to Consider

Priority Patient Types	Yes	No	Action Required
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Does your existing emergency plan have established criteria to prioritize patient types based upon presenting health status in the event of an emergency?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Tip: See Reference Information (R2) Priority Patient Groups for more information.

Priority Clinical Services	Yes	No	Action Required
----------------------------	-----	----	-----------------

Does your program have a list of all CKD Renal Program Services?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Tip: Appendix B – Clinical Services Listing is a template designed to collate this information.

Does your program have a detailed list of all essential services which *must* be maintained and delivered to CKD patients in the event of an emergency?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Priority Clinical Services (Cont'd.)	Yes	No	Action Required
--------------------------------------	-----	----	-----------------

Does your program have a detailed list of all non-essential services which *may* be maintained and delivered to CKD patients in the event of an emergency?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Has your program incorporated essential and non-essential clinical services and prioritized patient types into all other aspects of your existing emergency management plan?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Triage & Screening	Yes	No	Action Required
--------------------	-----	----	-----------------

Do you have a designed CKD Program Triage Officer (physician or advanced practice nurse) to oversee triage/screening operations of CKD in the event of an emergency?

<input type="checkbox"/>	<input type="checkbox"/>
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Do you have a well-defined standardized triage process designed for CKD patients in order to manage patient intake, identification and triage of both acute and chronic renal patients in the event of an emergency?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Is the CKD program triage system and processes consistent with your Hospital /Facility?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Triage & Screening (Cont'd.)	Yes	No	Action Required
Do you have a clinical area(s) within your CKD Program or facility identified for use for triage and screening in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have an alternative clinical area(s) within your program or facility identified for use for triage and screening in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Does your program have defined CKD surge demand (patient volumes) which trigger activation of alternative triage support in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have established triage protocols for CKD patients in the event of an emergency in order to optimize accuracy of the triage process?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have standardized screening tools in place for screening patients during triage? (i.e. Febrile Respiratory Illness - FRI)	<input type="checkbox"/>	<input type="checkbox"/>	
Does your program have standardized triage and screening documentation tools developed for use in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Has your program considered how a CKD triage and screening process may impact other areas of your hospital or facility?	<input type="checkbox"/>	<input type="checkbox"/>	

CKD Surge Demand and Capabilities Checklist

The **CKD Surge Demand and Capabilities Checklist** will assist local teams to assess key areas for consideration to determine emergency capacity and capabilities required in the development of effective emergency response plans. Surge demand refers to an increase in patient volumes during an emergency; surge capability refers to the ability to meet a broad range of clinical care requirements of the patient population during an emergency.

Key Areas to Consider

Surge Demand and Capability	Yes	No	Action Required
Does your existing CKD Emergency Management Plan detail the surge demand (patient volumes) by priority clinical service areas?	<input type="checkbox"/>	<input type="checkbox"/>	
Does your existing CKD Emergency Management Plan detail the surge capabilities (the broad range of clinical service support) available within priority clinical service areas?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have the ability to increase capacity by utilizing other physical locations within your program or hospital/facility for patient overflow?	<input type="checkbox"/>	<input type="checkbox"/>	
Does your existing CKD Emergency Management Plan detail the surge demand and capability against varying degrees of CKD staffing resources available in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	

Surge Demand and Capability (Cont'd.)	Yes	No	Action Required
Do you have the ability to increase capacity by utilizing staff from other clinical areas to support the program?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have the ability to increase capacity by increasing hours of operation across priority clinical service areas during an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have the ability to identify, train and support patients who could be managed on a home-based therapy during an early pandemic alert period prior to the emergency event?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have the ability to increase capacity by transporting equipment, supplies, staff and patients to alternative sites of care?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have the ability to refer non-essential patient clinical services to another hospital or facility in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have the ability to refer non-essential patient clinical services to home care agencies in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have the ability to refer essential patient clinical services to another hospital or facility in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	

Critical Infrastructure Checklist

The **Critical Infrastructure Checklist** is provided to support identification of current capabilities required by a CKD Service Provider in terms of the unique considerations for CKD programs in evaluating critical infrastructure requirements in the event of an emergency. The following should be reviewed as it relates to critical infrastructure requirements: Emergency Power Supply, Emergency Dialysis Water Supply, Emergency Laboratory/Radiology Support, HVAC and Biohazard Waste Removal.

Key Areas to Consider

Emergency Power Supply	Yes	No	Action Required
Does your Hospital or Facility have emergency power generation capabilities?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the CKD Program one of the identified priority clinical service areas to receive emergency power generation support in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have a dedicated emergency power generation supply for your CKD program?	<input type="checkbox"/>	<input type="checkbox"/>	

Emergency Power Supply

Yes

No

Action Required

Which of the following clinical service areas within the CKD program is emergency power or generation supply required:

- In-centre hemodialysis
- Home dialysis
- Clinic areas
- Water treatment facility/room
- Biomedical room

Tip: Add specific details as to which locations within each clinical service area as required.

Do you know how long the emergency power generation supply can run without refueling?

Document the known duration of the emergency power generation supply in hours or days.

Do you know the frequency of back-up testing for the emergency power generation system?

Notes

Emergency Dialysis Water Supply

Yes

No

Action Required

Does your Hospital or Facility have emergency water supply contingency plans in the event of an emergency?

Is the CKD Program one of the identified priority clinical service areas to receive emergency water supply support in the event of an emergency?

Which of the following clinical service areas within the CKD program is emergency water supply required:

- In-centre hemodialysis
- Home dialysis
- Clinic areas
- Water treatment facility/room
- Biomedical room

Tip: Add specific details as to which locations within each clinical service area as required.

Will the Hospital or Facility emergency management plan for water supply provide sufficient water supply to the CKD Program to maintain priority clinical service areas in the event of an emergency?

Does the CKD program have an independent contingency plan for incoming water supply for hemodialysis therapy in the event of a complete failure of the hospital/facility water system?

Emergency Dialysis Water Supply (Cont'd.)	Yes	No	Action Required
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Has the total water volume requirements been calculated to maintain hemodialysis service in the event of an emergency where there is a disruption in water supply?	<input type="checkbox"/>	<input type="checkbox"/>	
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Emergency Laboratory and Radiology Support	Yes	No	Action Required
--	-----	----	-----------------

Would the CKD program utilize hospital or facility laboratory services in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
--	--------------------------	--------------------------	--

Would the CKD program utilize hospital or facility radiology services in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Does the CKD program have a policy and procedures for the use of laboratory and radiology services in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
--	--------------------------	--------------------------	--

Does the hospital or facility have contingency plans for alternative arrangements for laboratory or radiology services in the event of an emergency and if on-site facilities are inoperable?	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Other Considerations

Does the CKD program have designated clinical areas capable of having the heating, ventilation and/or air conditioning (HVAC) shutdown in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
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Emergency Renal Product Supply Checklist

The **Emergency Renal Product Supply Checklist** is provided to support identification of current plans in place with respect to ensuring sufficient emergency renal product supply. The focus of this assessment is in two key areas: renal product consumables and renal pharmacy supply.

Key Areas to Consider

Renal Dialysis Product Supply	Yes	No	Action Required
-------------------------------	-----	----	-----------------

Do you have an identified type/name of renal product consumables required for the CKD Program in the event of an emergency?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Tip: Take into consideration all clinical service area requirements:

- In-centre Hemodialysis
- Peritoneal Dialysis
- Home Hemodialysis
- Clinics

Do you have a minimum of 4 weeks supply of renal product consumables for hemodialysis treatment based on planned capacity needs in the event of an emergency?

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

If not, please indicate how many weeks supply of product:

Renal Dialysis Product Supply (Cont'd.)	Yes	No	Action Required
Do you have a minimum of 4 weeks supply of renal product consumables for peritoneal dialysis treatment based on planned capacity needs in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
If not, please indicate how many weeks supply of product:	<input type="text"/>		
Is an emergency supply of renal product consumables for dialysis therapy stored on site?	<input type="checkbox"/>	<input type="checkbox"/>	
Is an emergency supply of renal product consumables for dialysis therapy stored off site?	<input type="checkbox"/>	<input type="checkbox"/>	
If emergency supplies of renal product consumables are stored off site, is there a process identified for the rapid transfer of product supply to the CKD program in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have an emergency product supply agreement with product vendors?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have both a primary and secondary product supply vendor in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have 24/7 emergency contact information and support available for renal product suppliers?	<input type="checkbox"/>	<input type="checkbox"/>	

Renal Dialysis Product Supply (Cont'd.)

Yes

No

Action Required

Do vendors have local and/or regional warehousing or logistics support of product supplies to support CKD program needs in the event of an emergency?

Tip: Note details of product vendor support with off site by way of warehousing or logistics capabilities.

Are emergency renal product consumable supplies designated "For Use in the Event of an Emergency Only"?

Are emergency renal products designated as "Emergency Use Only" labelled, inventoried, managed and secure?

Notes

Renal Pharmacy Products

Yes

No

Action Required

Have you identified the type/name of renal pharmacy products required for the CKD Program in the event of an emergency?

Tip: Take into consideration all clinical service area requirements:

- In-centre Hemodialysis
- Peritoneal Dialysis
- Home Hemodialysis
- Clinics

Do you have a minimum of 4 weeks supply of renal pharmacy products based on planned capacity needs in the event of an emergency?

If not, please indicate how many weeks supply of product:

Is an emergency supply of renal pharmacy products for CKD patients stored on site?

Is an emergency supply of renal pharmacy products for CKD patients stored off site?

If emergency supplies of renal pharmacy products are stored off site, is there a process identified for rapid transfer of product supply to the CKD program in the event of an emergency?

Renal Pharmacy Products (Cont'd.)	Yes	No	Action Required
-----------------------------------	-----	----	-----------------

Do you have an emergency product supply agreement with product vendors?	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Do you have both a primary and secondary product supply vendor in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
--	--------------------------	--------------------------	--

Do you have 24/7 emergency contact information and support available from renal product suppliers?	<input type="checkbox"/>	<input type="checkbox"/>	
--	--------------------------	--------------------------	--

Do vendors have local and/or regional warehousing or logistics support of renal pharmacy supplies to support CKD program needs in the event of an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	
--	--------------------------	--------------------------	--

Tip: Note details of product vendor support with off site by way of warehousing or logistics capabilities.

Are emergency renal pharmacy product supplies designated "For Use in the Event of an Emergency Only"?	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Are emergency renal pharmacy products designated as "Emergency Use Only" labelled, inventoried, managed and secure?	<input type="checkbox"/>	<input type="checkbox"/>	
---	--------------------------	--------------------------	--

Notes

Dialysis Capital Equipment Inventory

The **Dialysis Capital Equipment Inventory** template is provided to summarize details (listed below) of the CKD program capital equipment available in the event of an emergency. A completed template may be included within your local CKD Emergency Management Plan for reference.

- Service Site
- Capital Equipment Type
- Capital Equipment Volume
- Emergency Power Supply
- Emergency Water Supply
- Water Supply Source
- Hours of Operation

Template Glossary of Terms

Term	Description
Service Site	Name of service site and location
Capital Equipment Type	Capital equipment make and model
Capital Equipment Volume	Capital equipment number (#)
Emergency Power Supply	Emergency Power provided at site/location (as applicable) as indicated by Yes/No response
Emergency Water Supply	Emergency water provided at site/location (as applicable) as indicated by a Yes/No response
Water Supply Source	Details regarding service site/location water supply source (as applicable)
Hours of Operation	Details on hours of operation of site/location in the event of an emergency
Comments	Additional notes may be added here for reference

RECOMMENDED ACTIONS

1. Using the template provided complete one template to detail the capital equipment of the CKD program.
2. Incorporate the completed template into your final CKD emergency management plan as a key reference tool.



Dialysis Capital Equipment Inventory

An example of a complete template is below for reference.

Service Site Name: *CKD Program ABC*

Site Location	Location #1	Location #2	Location #3	Location #4	Location #5
Capital Equipment Type (make & model)	FMC Hemodialysis Medical Device	Gambro Hemodialysis Medical Device	Bellco Hemodialysis Medical Device	Baxter Peritoneal Dialysis Device	
Capital Equipment Volume (#)	24	6	4	10	
Emergency Power Supply Available	Yes (Hospital Generator)	Yes (Hospital Generator)	Yes (CKD Program Generator)	Yes (Hospital Generator)	
Emergency Water Supply Available	Yes	No	No	N/A	
Water Supply Source	Primary Dialysis Water Treatment System	Portable RO Only	Portable RO Only	N/A	
Hours of Operation	6 am – 1 am (7 days/week)	24 hrs/7 days week	6 am – 11 pm	24 hrs/7 days week	
Additional Comments				See medical device operating manual for details regarding battery life during power failure.	

Notes

Dialysis Capital Equipment Inventory - Template

Service Site Name: _____

Site Location	Location #1	Location #2	Location #3	Location #4	Location #5
Capital Equipment Type (make & model)					
Capital Equipment Volume (#)					
Emergency Power Supply Available					
Emergency Water Supply Available					
Water Supply Source					
Hours of Operation					
Additional Comments					

Notes

CKD Hazard Identification and Risk Assessment Workbook

The **CKD Hazard Identification and Risk Assessment (HIRA) Workbook** is an Excel based workbook designed to help identify hazards and assess their associated risks. The workbook has been designed and adapted from the Emergency Management Office (2012) Hazard Identification and Risk Assessment for the province of Ontario. The methodology used to calculate scores has been leveraged and definitions have been adapted to better reflect the needs of CKD Service Providers. This resource is designed to be used to complete your local CKD HIRA in order to identify hazards and risks unique to your region. Additional information regarding the HIRA process, hazard assessment and analysis can be located under the appropriate tab within the workbook.

Appendix I

CKD Hazard Identification and Risk Assessment Case Example

The **CKD Hazard Identification and Risk Assessment Case Example** is a workbook example of a completed CKD HIRA for educational and reference purposes only. Inside the workbook you will be able to review the results from a mock CKD HIRA review.



Additional resources have been provided to support the process of conducting a CKD Hazard Identification and Risk Assessment.

The three resources are:

- CKD HIRA Workbook (Appendix H) – *excel based workbook to complete the CKD HIRA*
- CKD HIRA Case Example (Appendix I) – *case example of a completed CKD HIRA*
- CKD HIRA Instructions for Use (Appendix J) – *detailed instructions on how to use the excel-based workbook in order to complete the CKD HIRA*

As all appendices are excel based files, electronic copies of Appendix H and I will be provided separately. Appendix J (CKD HIRA Instructions for Use) are included below.

CKD HIRA Instructions for Use

The **CKD HIRA** is a risk management planning tool designed to help identify hazards and assess their associated risks, as the first step in the emergency management planning cycle. The focus of the CKD HIRA is to better identify and understand hazards specific to your CKD program needs which may not have been previously or adequately addressed by the hospital's Emergency Preparedness Plan.

PART 1 - GETTING STARTED

Open the **CKD HIRA Workbook** and note the five tabs along the bottom of the document.

The screenshot displays the 'CKD HIRA Workbook - Case Example' document. The main content area is titled 'Hazard Identification and Risk Assessment (HIRA) Workbook' and includes introductory text about the tool's purpose and usage. A circular diagram illustrates the HIRA process with four steps: Hazard Identification, Risk Assessment, Risk Analysis, and Monitor & Review. Below the diagram, the 'HIRA Process' section lists these four steps. At the bottom, the Excel tab bar is visible, with a red arrow pointing to the 'HIRA Process' tab. Other tabs include 'Facility HIRA Template (CKD)', 'Facility HIRA Analysis - Table', 'Facility HIRA Analysis - Graphs', 'Provincial HIRA (CKD)', 'Lists', and 'Calculations'.

TAB DETAILS

The **HIRA Process** tab provides a high-level version of this document explaining how to use the workbook. This guide complements these Instructions by elaborating on methodologies used, describing expectations set by the Ontario Renal Network and providing a few helpful hints regarding how to use Excel.

The **Facility HIRA Template (CKD)** tab is the working document used to assess CKD program and facility hazards. The content and framework represent an interactive CKD adaption of Emergency Management Ontario's 2012 HIRA workbook. Note that some definitions and categories have been modified to better reflect CKD requirements.

The **Facility HIRA Analysis – Table** tab is the first of two outputs from the Facility HIRA Template tab. This tab will summarize, in a few easy steps, the risk assessments from your responses to each hazard assessed.

The **Facility HIRA Analysis – Graph** tab is the second of two outputs from the Facility HIRA Template tab. This tab will summarize in graph format the total scores from each hazard assessed in a visual format. Both tables and graphs will support the next steps of emergency management planning.

The **Provincial HIRA (CKD)** tab is for reference only. The details on this tab have been obtained from a review of the MOHLTC and Province of Ontario HIRA tools. This tab provides additional resource and information, which, when used in combination with the program/facility and municipal HIRA, can be leveraged to ensure all hazards and risks associated with CKD have been identified and thoroughly assessed. There are no mandatory actions associated with this spreadsheet. The Provincial HIRA references used to support the page content were obtained from:

- The 2012 Ontario HIRA as assessed by Emergency Management Ontario (EMO), including hazard descriptions
- The 2007 Ministry of Health and Long-Term Care HIRA as assessed by the Ministry's Emergency Management Unit
- Ontario Renal Network's supplemental CKD considerations for identified Ontario risks

PART 2 - THE CKD HIRA PROCESS

This guide will walk you through each of the essential actions in developing and maintaining a HIRA.

- i. Hazard Identification:** identify which hazards can impact your program and those that cannot
- ii. Risk Assessment:** assess the level of risk for each of the relevant hazards
- iii. Risk Analysis:** analyze the hazards to support prioritization for your emergency management program
- iv. Monitor & Review:** monitor and review hazards and their associated risks on at least an annual basis

HAZARD IDENTIFICATION AND RISK ASSESSMENT

Open the Facility HIRA Template (CKD) tab, as shown below. Both the (i) Hazard Identification and (ii) Risk Assessment steps will be completed using this spreadsheet.

Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard	Frequency Assessment			Consequence Assessment					
				Frequency Assessment	Frequency Score	Frequency Notes	Fatalities	Injuries	Evacuation	Property Damage	Critical Infrastructure	Environmental Damage
Natural	Drinking water emergency	Mandatory										
Natural	Human health emergency	Mandatory										
Technological	Water emergency (supply)	Mandatory										
Technological	Energy emergency (supply)	Mandatory										
Human-caused	Cyber attack	Recommended										
Human-caused	Terrorism/CBRNE	Recommended										
Natural	Earthquake	Recommended										
Natural	Extreme temperatures	Recommended										
Natural	Flood	Recommended										
Natural	Forest/wildland fire	Recommended										
Natural	Freezing rain	Recommended										
Natural	Geomagnetic storm	Recommended										
Natural	Snowstorm/blizzard	Recommended										
Natural	Tornado	Recommended										
Technological	Nuclear facility emergency	Recommended										
Technological	Radiological emergency	Recommended										
Human-caused	Civil disorder	Optional										
Human-caused	Sabotage	Optional										
Human-caused	Special event	Optional										
Human-caused	War and international emergency	Optional										
Natural	Agricultural and food security	Optional										
Natural	Drought/low water	Optional										
Natural	Erosion	Optional										
Natural	Fog	Optional										
Natural	Hail	Optional										

Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard	Frequency Assessment	Frequency Score	Frequency Notes
Natural	Drinking water emergency	Mandatory				
Natural	Human health emergency	Mandatory	Yes			
Technological	Water emergency (supply)	Mandatory	No			
Technological	Energy emergency (supply)	Mandatory				
Human-caused	Cyber attack	Recommended				
Human-caused	Terrorism/CBRNE	Recommended				
Natural	Earthquake	Recommended				
Natural	Extreme temperatures	Recommended				

ONTARIO RENAL NETWORK HIRA RECOMMENDATIONS

A detailed list of potential hazard (types, names) are listed on this tab. The Ontario Renal Network HIRA Recommendation drop down menu identifies each potential hazard as either Mandatory, Recommended or Optional. Ontario Renal Network HIRA Recommendations cannot be modified within the tool.

- i. Mandatory** – Hazards listed as ‘mandatory’ require every renal program and facility to complete a HIRA for the specific hazard type/name. There are four (4) mandatory hazards each program must assess using the tool.
- ii. Recommended** – Hazards listed as ‘recommended’ require every renal program and facility to review the hazard type and determine if the hazard and associated risks are relevant based on local, historical or regional factors. There are twelve (12) recommended hazards each program/facility should review and determine if the listed hazard is applicable to their local environment.
- iii. Optional** – Hazards listed as ‘optional’ should be reviewed and a complete hazard identification and risk assessment completed for each as relevant to local, historical or regional factors.

STEP 1: HAZARD IDENTIFICATION

Review the complete list of hazards and identify whether the hazard applies to you by selecting the adjacent cell under “Local Hazard” (column E) and choosing “Yes” or “No” from the drop down menu that appears.

Note: All **Mandatory CKD HIRA** require a “Yes” response under Local Hazard.

Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard	Frequency Assessment	Frequency Score	Frequency Notes
Natural	Drinking water emergency	Mandatory				
Natural	Human health emergency	Mandatory	Yes			
Technological	Water emergency (supply)	Mandatory	No			
Technological	Energy emergency (supply)	Mandatory				
Human-caused	Cyber attack	Recommended				
Human-caused	Terrorism/CBRNE	Recommended				
Natural	Earthquake	Recommended				
Natural	Extreme temperatures	Recommended				



Helpful Hint: You can find high level descriptions of these hazards, along with the Ontario Renal Network's evaluation of the potential impact to CKD care, on the *Provincial HIRA (CKD)* tab.

STEP 2: ADD HAZARDS NOT PREVIOUSLY LISTED AS REQUIRED

Identify any additional critical local hazards not previously listed and enter them on this worksheet.

Note: We also recommend you review your facility and municipal HIRA for any critical local hazards that may impact the delivery of CKD care. The workbook allows you to enter these into the spreadsheet, leveraging blank rows at the bottom. Please be sure to classify these as *Mandatory*, *Recommended* or *Optional* based on your assessment of the impact to CKD care and remember to save your work.

	Hazard Type	Hazard	ORN HIRA Recommendation
3			
41	Technological	Oil/natural gas emergency	Optional
42	Technological	Transportation emergency	Optional
43	Other		
44	Other		
45	Other		
46	Other		
47	Other		
48	Other		
49	Other		
50	Other		

Helpful Hint: After reviewing the risks to see if they are applicable to you, you can filter the list to only show the hazards that apply to you, or sort the list so all the hazards that apply to you are at the top. See the images below for both options.



Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard	Frequency Assessment
Natural	...	...	Yes	Likely
Natural	...	...	Yes	Likely
Natural	...	...	Yes	Likely
Natural	Geomagnetic storm	Recommended	Yes	Very Unlikely
Natural	Snowstorms/blizzard	Recommended	Yes	Almost Certain
Natural	Tornado	Recommended	Yes	Likely
Natural	Drinking water emergency	Mandatory	Yes	Unlikely
Human-caused	Civil disorder	Optional	No	
Human-caused	Sabotage	Optional	No	
Human-caused	Special event	Optional	No	
Human-caused	War and international emergency	Optional	No	

Select the little box with a triangle under local hazard to bring up the menu shown below.

To bring all of the "Yes" responses to the top of the table, select "Sort Z to A"

To only showcase the hazards that apply to you, unclick "No"

Select "OK" once you have completed the desired action described above.

RISK ASSESSMENT



Helpful Hint: With up to 50 local hazards to assess, consider completing this assessment in phases, beginning with hazards assessed as “Mandatory” by the Ontario Renal Network and expanding scope on a quarterly or annual basis.

The Ontario Renal Network reviewed the Ontario hazard list and identified which hazards could have an impact on the delivery of CKD therapy, leveraging the definitions below:

Ontario Renal Network Recommendation Description

Mandatory

Hazards with a significant impact on the delivery of CKD care and a probable or greater likelihood of occurrence in Ontario.

Recommended

Hazards with a likely impact to CKD care with varied probabilities.

Optional

Hazards which are either local in nature or may not directly impact CKD care.

The Risk Assessment evaluates the likelihood, impact and changes to risk over time for each hazard identified. The CKD HIRA Workbook allows you to quickly evaluate each hazard and associated risk using a standardized approach. Complete the Risk Assessment by following the steps outlined below:

STEP 1: FREQUENCY ASSESSMENT (LIKELIHOOD)

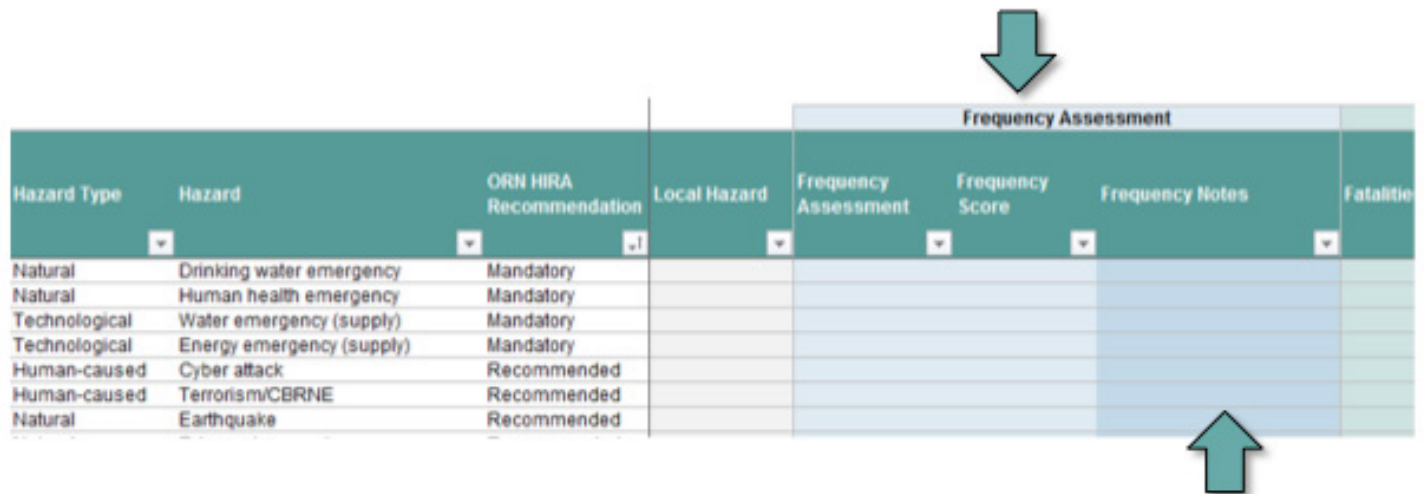
Complete the frequency risk assessment evaluating the likelihood of each hazard you are assessing by selecting the appropriate response from the drop-down menu as shown below, leveraging the definitions below.

Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard	Frequency Assessment		
				Frequency Assessment	Frequency Score	Frequency Notes
Natural	Drinking water emergency	Mandatory				
Natural	Human health emergency	Mandatory				
Technological	Water emergency (supply)	Mandatory				
Technological	Energy emergency (supply)	Mandatory				
Human-caused	Cyber attack	Recommended				
Human-caused	Terrorism/CBRNE	Recommended				
Natural	Earthquake	Recommended				
Natural	Extreme temperatures	Recommended				

Frequency Assessment Definition

Rare	Less than a 1% chance of occurrence in any year. Hazards with return periods >100 years.
Very Unlikely	Between a 1% - 2% chance of occurrence in any year. Occurs every 50 - 100 years and includes hazards that have not occurred but are reported to be more likely to occur in the near future.
Unlikely	Between a 2% - 10% chance of occurrence in any year. Occurs every 20 - 50 years.
Probable	Between a 10% - 50% chance of occurrence in any year. Occurs every 5 - 20 years.
Likely	Between a 50% - 100% chance of occurrence in any year. Occurs within 5 years.
Almost Certain	100% chance of occurrence in any year. The hazard occurs annually.

The “Frequency Score” will auto-populate a numeric value associated with your rating, where 1 equals “rare” and 6 equals “almost certain”.



			Frequency Assessment				
Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard	Frequency Assessment	Frequency Score	Frequency Notes	Fatalities
Natural	Drinking water emergency	Mandatory					
Natural	Human health emergency	Mandatory					
Technological	Water emergency (supply)	Mandatory					
Technological	Energy emergency (supply)	Mandatory					
Human-caused	Cyber attack	Recommended					
Human-caused	Terrorism/ CBRNE	Recommended					
Natural	Earthquake	Recommended					

The “Frequency Notes” column allows you to input any comments regarding the frequency of the hazard. For instance, under “energy emergency” if your facility’s back-up generator was in need of replacement and a risk is therefore more likely, you could capture this here.

STEP 2: CONSEQUENCE ASSESSMENT (IMPACT)

For each hazard you are assessing, complete the consequence assessment.

The consequence assessment examines the impact the hazard will have, evaluating the following factors: fatalities, injuries, evacuation requirements, property damage, critical infrastructure, environmental damage, business continuity, and psychosocial impacts.

Select each of the appropriate cells to access the drop down menu to input your assessment. Definitions for each factor are below. Remember to save your work regularly.

Hazard	ORN HIRA Recommendation	Consequence Assessment							
		Fatalities	Injuries	Evacuation	Property Damage	Critical Infrastructure	Environmental Damage	Business Continuity Impact	Psychosocial Impact
Drinking water emergency	Mandatory								
Human health emergency	Mandatory								
Water emergency (supply)	Mandatory								
Energy emergency (supply)	Mandatory								
Cyber attack	Recommended								
Terrorism/CBRNE	Recommended								
Earthquake	Recommended								

The definitions for assessing each consequence factor are as follows:

Fatalities Assessment Definition

None	Not likely to result in fatalities within the community.
Minor	Could result < 5 fatalities within the community.
Moderate	Could result in 5 - 10 fatalities within the community.
Severe	Could result in 10 - 50 fatalities within the community.
Catastrophic	Could result > 50 fatalities within the community.

Injuries Assessment Definition

None	Not likely to result in injuries within the community.
Minor	Could injure < 25 people within the community.
Moderate	Could injure 25 - 100 people within the community.
Severe	Could injure > 100 people within the community.

Evacuation Assessment

None

Definition

Not likely to result in an evacuation shelter-in-place orders or people stranded.

Minor

Could result in < 50 people being evacuated, sheltered-in-place, or stranded.

Moderate

Could result in 50 - 100 people being evacuated, sheltered-in-place, or stranded.

Severe

Could result in > 100 people being evacuated, sheltered-in-place, or stranded.

Property Damage Assessment

None

Definition

Not likely to result in property damage within the community.

Minor

Could cause minor and mostly cosmetic damage.

Moderate

Localized severe damage (a few buildings destroyed).

Severe

Localized severe damage (a few buildings destroyed).

Critical Infrastructure Failure/Service Impact Assessment

None

Definition

Not likely to disrupt critical infrastructure services.

Minor

Could disrupt 1 critical infrastructure service such as water, power, and capital equipment (HD machines, water treatment machines, portable water machines, backup generators).

Moderate

Could disrupt 2-3 critical infrastructure services such as water, power, and capital equipment (HD machines, water treatment machines, portable water machines, backup generators).

Severe

Could disrupt > 3 critical infrastructure services such as water, power, and capital equipment (HD machines, water treatment machines, portable water machines, backup generators).

Environmental Damage Assessment

None

Definition

Not likely to result in property damage within the community.

Minor

Could cause minor and mostly cosmetic damage.

Moderate

Localized severe damage (a few buildings destroyed).

Severe

Localized severe damage (a few buildings destroyed).

Business Continuity Impact Assessment Definition

None	Not likely to disrupt business/financial activities.
Moderate	Could result in losses for a few businesses.
Severe	Could result in losses for an industry.

Psychosocial Impact Assessment Definition

None	Not likely to result in significant psychosocial impacts.
Moderate	Significant psychosocial impacts including limited panic, hoarding, self-evacuation, and long-term psychosocial impacts.
Severe	Widespread psychosocial impacts, e.g. mass panic, widespread hoarding and self-evacuation and long-term psychological impacts.

The consequence score and assessment are calculated automatically leveraging the responses you provide to the individual factors. This calculation is based on Emergency Management Ontario’s (EMO) methodology where:

- Fatalities are scored on a scale of 0 to 4 where none equals 0 and catastrophic equals 4.
- Injuries, evacuation, property damage, critical infrastructure, and environmental damage are scored on a scale of 0 to 3, where none equals 0 and severe equals 3.
- Business continuity impact and psychosocial impact are scored on a scale of 0 to 2, where none equals 0 and severe equals 2.

These values are subtotaled and then adjusted to allow equal weighting of frequency and consequence assessments in the evaluation, calculated as per the table below:

Consequence Subtotal	Consequence Assessment	Consequence Score
1-4	Minor	1
5-6	Slight	2
7-8	Moderate	3
9-10	Severe	4
11-12	Very Severe	5
>13	Catastrophic	6

Similar to the frequency assessment, the consequence assessment provides a cell for inputting any notes related to the impact of that hazard, as indicated below:

Hazard Type	Hazard	ORN HIRA Recommendation	Assessment				Consequence Notes	Is the hazard an emergency occurrence?
			Business Continuity Impact	Psychosocial Impact	Consequence Assessment	Consequence Score		
Natural	Human health emergency	Mandatory	Severe	Severe	Catastrophic	6		
Technological	Water emergency (supply)	Mandatory	Severe	Severe	Very severe	5		
Technological	Energy emergency (supply)	Mandatory	Moderate	Severe	Severe	4		
Natural	Agricultural and food emergency	Optional	None	Moderate	Minor	1		
Natural	Hurricane	Optional	Moderate	Moderate	Severe	4		
Natural	Land subsidence	Optional	None	None	Minor	1		
Natural	Landslide	Optional	None	None	Slight	2		
Natural	Lightning	Optional	None	None	Minor	1		

STEP 3: CHANGE IN RISK (OVER TIME, DYNAMIC NATURE OF RISK)

Hazards and their risks do not remain static over time. Assess how the risks of this hazard will change in both their likelihood of occurring (frequency) and in how vulnerable your facility will be to that hazard (consequence) by answering “yes” or “no” to each of the questions in the table header, also written below.

Changing Risk Assessment									
Is the number of non-emergency occurrences of the hazard increasing?	Is human activity likely to lead to more interaction with the hazard or an increase in frequency?	Is there an environmental reason why the frequency of the hazard may increase?	Are human factors (e.g. business) more likely to increase the risk?	Change in Frequency Score	Is a large number of the population vulnerable or is the number of people vulnerable to this hazard increasing?	Does critical infrastructure reliance or a “just-on-time” delivery system make the population more vulnerable?	Are response agencies not aware of, practiced, and prepared for this hazard?	Are no prevention/ mitigation measures currently in use for this hazard?	Change in Vulnerability Score

Changing Risk = Change in Frequency + Change in Vulnerability

Change in Frequency Assessment

- Is the number of reported non-emergency occurrences of the hazard increasing?
- Is human activity (e.g. population expansion, altering of drainage flow patterns) likely to lead to more interaction with the hazard or an increase in frequency?
- Is there an environmental reason (e.g. climate change) why the frequency of the hazard may increase?
- Are human factors such as business, financial, international practices more likely to increase the risk?

Change in Vulnerability Assessment

- Is a large percentage of the population vulnerable or is the number of people vulnerable to this hazard increasing?
- Does critical infrastructure reliance or a “just-on-time” delivery system (e.g. hemodialysis and peritoneal dialysis solutions supply) make the population more vulnerable?
- Are response agencies not aware of, practiced, and prepared for this hazard?
- Are no prevention/ mitigation measures currently in use for this hazard?

For each assessment, the score is calculated automatically leveraging EMO’s methodology as described below:

- If the answer is “yes” to two or more questions, then the assessment score equals 2.
- If the answer is “yes” to one or fewer questions, then the assessment score equals 1.

As always, remember to save your progress.

STEP 4: TOTAL RISK SCORE

Calculate total risk – though there is no action required as the spreadsheet completes this for you! The Total Risk Score is based on the frequency, consequence, and changing risk assessments you completed for the applicable hazards.

The total risk score is determined by the formulas used within the workbook for both Frequency and Consequence. Each variable for frequency, consequence and changing risk selected as the response trigger an automatic score for each category. Therefore:

$$\text{Total Risk} = \text{Frequency} \times \text{Consequence} \times \text{Changing Risk}$$

Risk Analysis

The objective of the Risk Analysis is to rank hazards based on risk to prioritize for execution in your emergency management program. Based on the responses you submitted in the Risk Identification and Risk Assessment steps, the total risk has been calculated and is presented in two formats: pivot tables and bubble graphs.

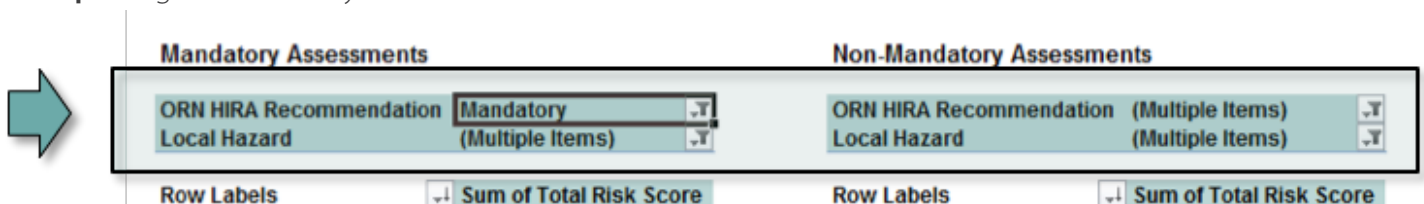
Pivot Tables

If you prefer your information presented in a table, this is the analysis for you. Start by opening the Facility HIRA Analysis – Table spreadsheet to see the following screen:

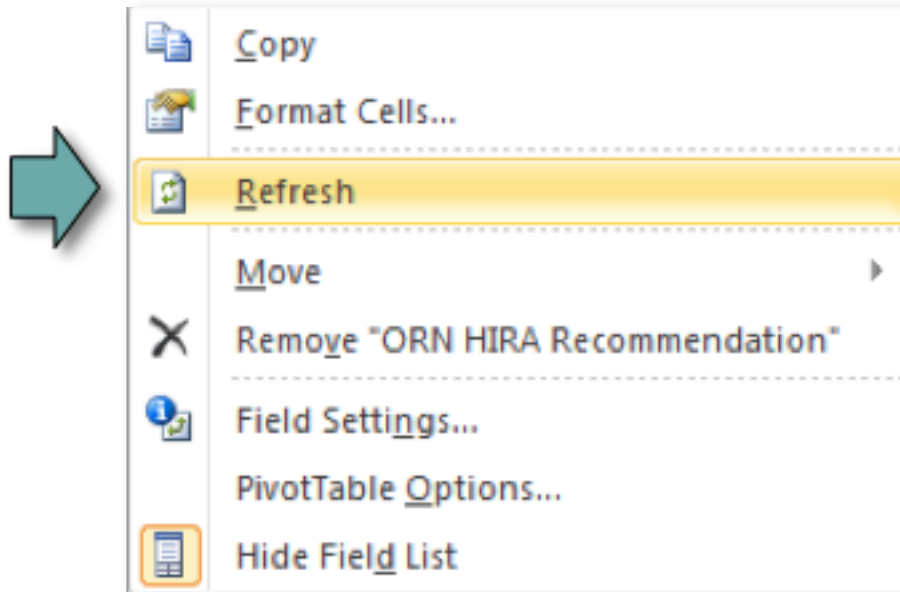
The screenshot shows a spreadsheet window titled "Facility HIRA Analysis - Table". It contains two pivot tables side-by-side. The left table is for "Mandatory Assessments" and the right is for "Non-Mandatory Assessments". Both tables have "Row Labels" and "Sum of Total Risk Score" as fields. The spreadsheet also shows a taskbar with other open files: "Facility HIRA Template (CKD)", "Facility HIRA Analysis - Graphs", and "Provincial HIRA (CKD)".

To Update the tables with your assessment results, simply follow these steps:

Step 1: Right-click on any of the teal-coloured cells in the table's header



Step 2: When you right-click a cell in the header, the menu below will appear. Select the “Refresh” button to update the table with your assessments.



Below is an example of what you should see, leveraging mock data. The two tables list all the local hazards you assessed, ranked by the total risk score (Frequency x Consequence x Changing Risk), and grouped by risk level (defined below). All of the hazards that the Ontario Renal Network mandated to assess as presented in one table, with recommended and optional assessments consolidated in another.

Mandatory Assessments

ORN HIRA Recommendation	Mandatory	
Local Hazard	Yes	

Row Labels	Sum of Total Risk Score
Extreme	235
Human health emergency	96
Water emergency (supply)	75
Energy emergency (supply)	64
High	36
Drinking water emergency	36

Non-Mandatory Assessments

ORN HIRA Recommendation	(Multiple Items)	
Local Hazard	Yes	

Row Labels	Sum of Total Risk Score
Extreme	144
Snowstorm/blizzard	72
Extreme temperatures	72
Very High	90
Terrorism/CBRNE	45
Oil/natural gas emergency	45
High	108
Tornado	40
Geomagnetic storm	36
Hurricane	32
Moderate	54
Freezing rain	30
Cyber attack	24
Low	84
Agricultural and food emergency	12
Transportation emergency	12
Lightning	12
Forest/wildland fire	12
Windstorm	12
Hazardous materials incident	12
Landslide	12
Very Low	26
Flood	10
Explosion/fire	10
Land subsidence	4
Earthquake	2

The risk level categories you see on the previous page are defined by EMO's HIRA methodology:

Total Risk Score	Total Risk Level Category
>50	Extreme
41-50	Very High
31-40	High
21-30	Moderate
11-20	Low
<10	Very Low

Next Steps:

For example, the CKD Program has identified a number of risks to be incorporated into your new local CKD Emergency Management Plan in order to develop and implement mitigation and prevention strategies targeting 8 hazards. Leveraging the previous mock data, consider starting first with any hazards with a high score which were flagged as Mandatory and hazards where total scores rated "Extreme" and "Very High" in the non-mandatory assessments. To optimize your resources, consider where hazards have similar strategies, such as an energy emergency and an oil/gas emergency.



Helpful Hint: Focus on the total risk scores associated with the individual hazards instead of the sum associated with the risk level grouping, which could be misleading. Let's look at a segment of the mock data as an example.

Here we are showing two risk levels (Moderate and Low) where the sum of the total risks under Moderate (54) is lower than that under Low (84).

Moderate	54
Freezing rain	30
Cyber attack	24
Low	84
Agricultural and food emergency	12
Transportation emergency	12
Lightning	12
Forest/wildland fire	12
Windstorm	12
Hazardous materials incident	12
Landslide	12

In isolation, this may appear to suggest that the program should focus on the Low risk level hazards given it represents a higher total risk. However, if you only have resources to prepare for one hazard, targeting one hazard under Moderate will always

provide a better return on your investment than a hazard under Low. As it is better to invest in mitigating a few high-risk hazards instead of many low risk hazards, the total risk score calculated at the risk level category should not be used for the purposes of prioritization.

Note: There is no easy way to hide those values from the pivot table, should you want to remove them so not to cause any confusion. However, you can always change the font of those cells to white so they are not visible on the white backdrop.

Helpful Hint: Note that if you added your own unique local hazards to the Facility HIRA Template (CKD) spreadsheet, they will default to the non-mandatory assessments unless you categorize them as “mandatory” (column D) on that spreadsheet.



	A	B	C	D	E
1					
2					
3		Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard
20	Natural	Extreme temperatures		Recommended	Yes
21	Natural	Flood		Recommended	Yes
22	Natural	Forest/wildland fire		Recommended	Yes
23	Natural	Freezing rain		Recommended	Yes
24	Natural	Geomagnetic storm		Recommended	Yes
25	Natural	Snowstorm/blizzard		Recommended	Yes
26	Natural	Tornado		Recommended	Yes
27	Natural	Drinking water emergency		Mandatory	Yes
28	Other	[Example hazard]			Yes
29	Human-caused	Civil disorder		Mandatory	Yes
30	Human-caused	Sabotage		Recommended	Yes
31	Human-caused	Special event		Optional	No
32	Human-caused	War and international emergency		Optional	No
33	Natural	Drought/low water		Optional	No
34	Natural	Erosion		Optional	No

Bubble Graphs:

If you prefer visuals, start by opening the Facility HIRA Analysis – Graphs spreadsheet.

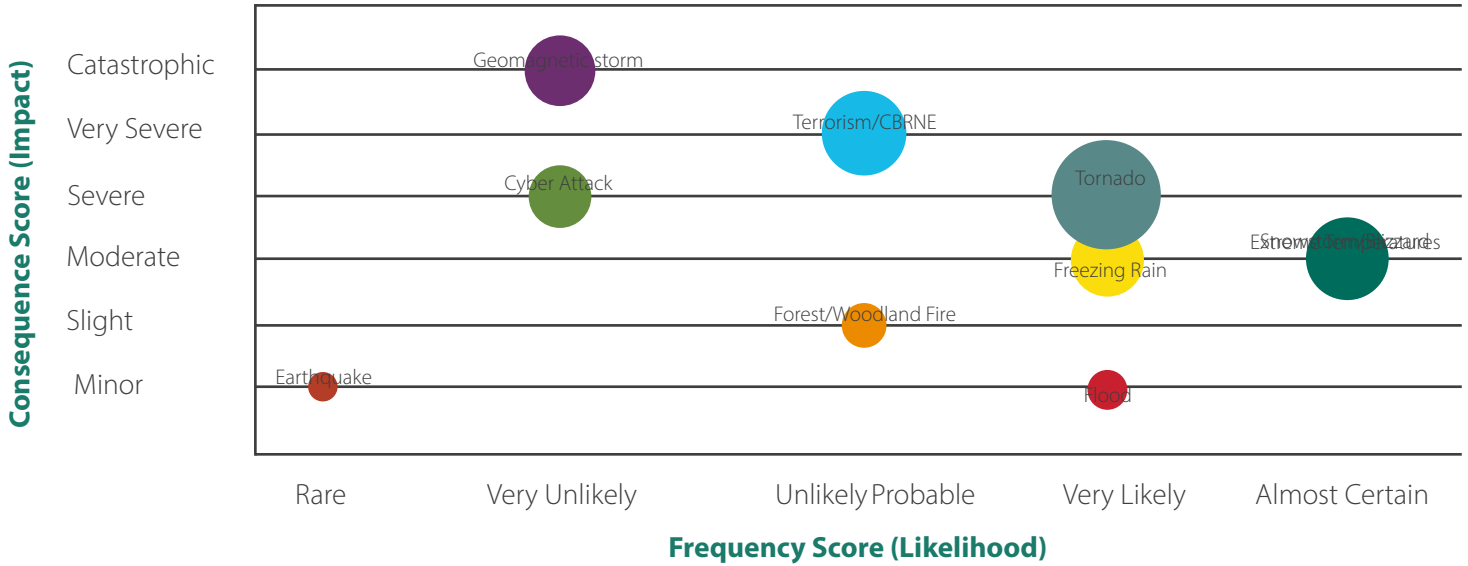


Helpful Hint: If you update your data on the Facility HIRA Template (CKD) spreadsheet, you will need to again update the pivot tables following the original directions provided above.

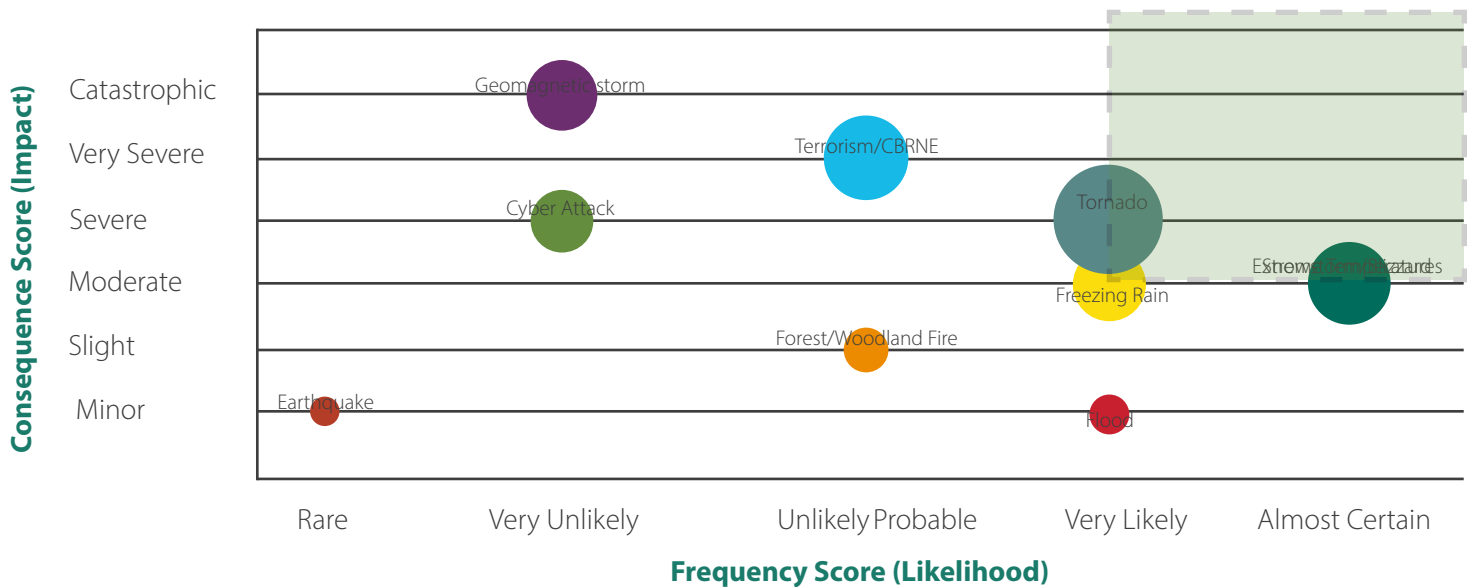
There are three graphs corresponding to the Ontario Renal Network’s recommendation for assessing the hazard: Mandatory, Recommended, and Optional. The size of the bubble represents the size of the total risk score (Frequency x Consequence x Changing Risk) and the location of that bubble on the axis is determined by its frequency (x axis) and consequence (y axis) scores.

These graphs update automatically so there are no additional actions for you to review your data, although as you will see in the helpful hints, you may need to tweak some of the labels.

Below is an example of what you might see. Note that for the purposes of the representation, mock data is used.



To leverage these graphs to prioritize for execution in your emergency management program, start with all hazards on the “Mandatory” graph, beginning with both the largest bubbles and any bubbles that appear in the upper right-hand quadrant, as highlighted below. Then move on to the “Recommended” graph, likewise beginning with the largest bubbles and any bubbles in the upper-right hand quadrant.



Helpful Hint: Note that if you added your own unique local hazards to the Facility HIRA Template (CKD) spreadsheet, they will not appear in any of these charts unless you selected a Mandatory, Recommended, or Optional response, based on the segment to which you feel this hazard belongs.



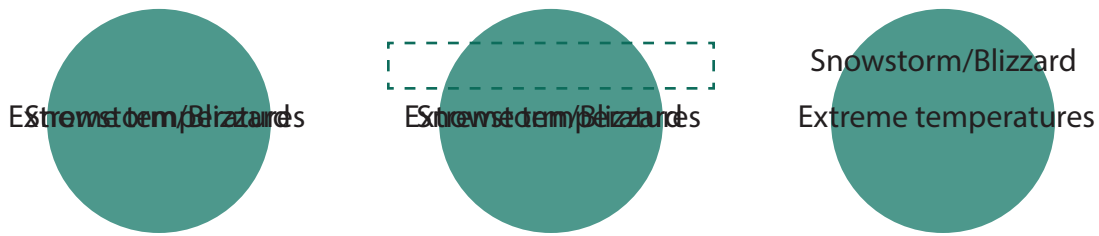
	A	B	C	D	E
1					
2					
3		Hazard Type	Hazard	ORN HIRA Recommendation	Local Hazard
20		Natural	Extreme temperatures	Recommended	Yes
21		Natural	Flood	Recommended	Yes
22		Natural	Forest/wildland fire	Recommended	Yes
23		Natural	Freezing rain	Recommended	Yes
24		Natural	Geomagnetic storm	Recommended	Yes
25		Natural	Snowstorm/blizzard	Recommended	Yes
26		Natural	Tornado	Recommended	Yes
27		Natural	Drinking water emergency	Mandatory	Yes
28		Other	[Example hazard]		Yes
29		Human-caused	Civil disorder	Mandatory	Yes
30		Human-caused	Sabotage	Recommended	Yes
31		Human-caused	Special event	Optional	Yes
32		Human-caused	War and international emergency	Optional	No
33		Natural	Drought/low water	Optional	No
34		Natural	Erosion	Optional	No



Helpful Hint: You are likely to end up with a few hazards that have the same frequency and consequence assessment, causing those hazard labels to be illegible as they overlap. In the example above, you can't make out "Snowstorm/blizzard" and "Extreme Temperatures" on the large light blue bubble.

Step 1:

Identify the applicable hazards by selecting a text label (left click and hold) and drag it up or down. You will see dotted lines around it while you move the label and when you let go of the mouse, the label will be in its new location. Now that the labels are easy to read, you can identify your hazards.



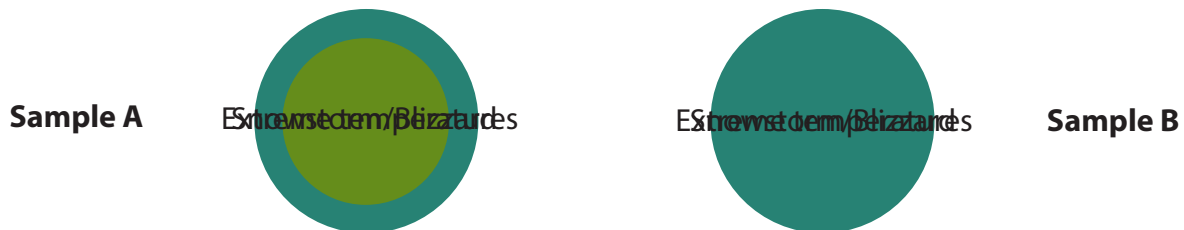
Step 2:

Identify whether they have different total risk scores.

While you know the frequency and consequence scores are the same, these hazards may have different changing risk assessments which could lead to a different total risk score and thus a different bubble size.

If the total risk scores are different, this may be self-evident (see Sample A below) or it may be hidden if the hazard with the larger risk, and therefore bigger bubble, is on top of the hazard with the smaller risk (Sample B), covering it up.

If the total risk scores are the same, the image you will see will also look like Sample B. Therefore you must identify the total risk values to understand how this data should best be represented.



To compare the total risk scores, you can either look up the values on the Facility HIRA Template (CKD) spreadsheet, as depicted below, or on the Facility HIRA Analysis – Table spreadsheet.

Hazard Type	Hazard	ORN HIRA Recommendation	Are no prevention/mitigation measures currently in use for this hazard?	Change in Vulnerability Score	Changing Risk Score	Total Risk Score	Risk Level Category
Natural	Human health emergency	Mandatory	No	2	4	96	Extreme
Technological	Water emergency (supply)	Mandatory	Yes	2	3	75	Extreme
Technological	Energy emergency (supply)	Mandatory	Yes	2	4	64	Extreme
Natural	Drinking water emergency	Mandatory	Yes	2	3	36	High
Human-caused	Cyber attack	Recommended	No	2	3	24	Moderate
Human-caused	Terrorism/CBRNE	Recommended	No	2	3	45	Very High
Natural	Earthquake	Recommended	No	1	2	2	Very Low
Natural	Extreme temperatures	Recommended	No	2	4	72	Extreme
Natural	Flood	Recommended	No	1	2	10	Very Low
Natural	Forest/wildland fire	Recommended	No	1	2	12	Low
Natural	Freezing rain	Recommended	No	1	2	30	Moderate
Natural	Geomagnetic storm	Recommended	Yes	2	3	36	High
Natural	Snowstorm/blizzard	Recommended	No	1	2	36	High
Natural	Tornado	Recommended	No	1	2	40	High
Natural	Agricultural and food emergency	Optional	No	2	3	12	Low
Natural	Hurricane	Optional	No	1	2	32	High

Step 3:

Adjust how the data is presented, as required.

Situation 1: Your overlapping hazards have the same total risk score.

In this circumstance, having two labels on the same bubble represents the data accurately. The only action you would need to take is to make the labels visible so they do not overlap, which you already completed in Step 1. Visually, the bubble on your graph would have resembled Sample B on the previous page and your total risk scores would be identical (which they are not in the table on the previous page).

Situation 2: Your overlapping hazards have different total risk scores and your bubbles looks like “Sample A” on the previous page.

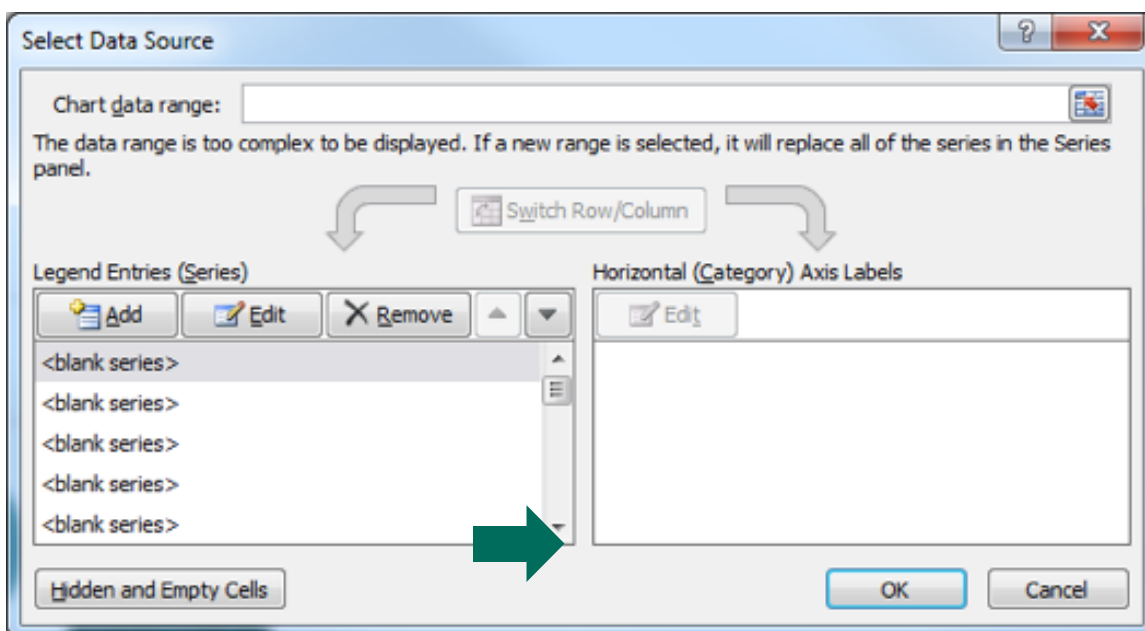
In this circumstance, you need to ensure that the label on the smaller, internal bubble corresponds to the hazard with the smaller risk score. Follow Step 1 if you need to reposition your labels. In the example on the previous page, the smaller bubble would be associated with “Snowstorm/blizzard”, so you will want to position that label accordingly to accurately reflect the appropriate bubble size and risk level.

Situation 3: Your overlapping hazards have different total risk scores and your bubbles looks like “Sample B” on the previous page.

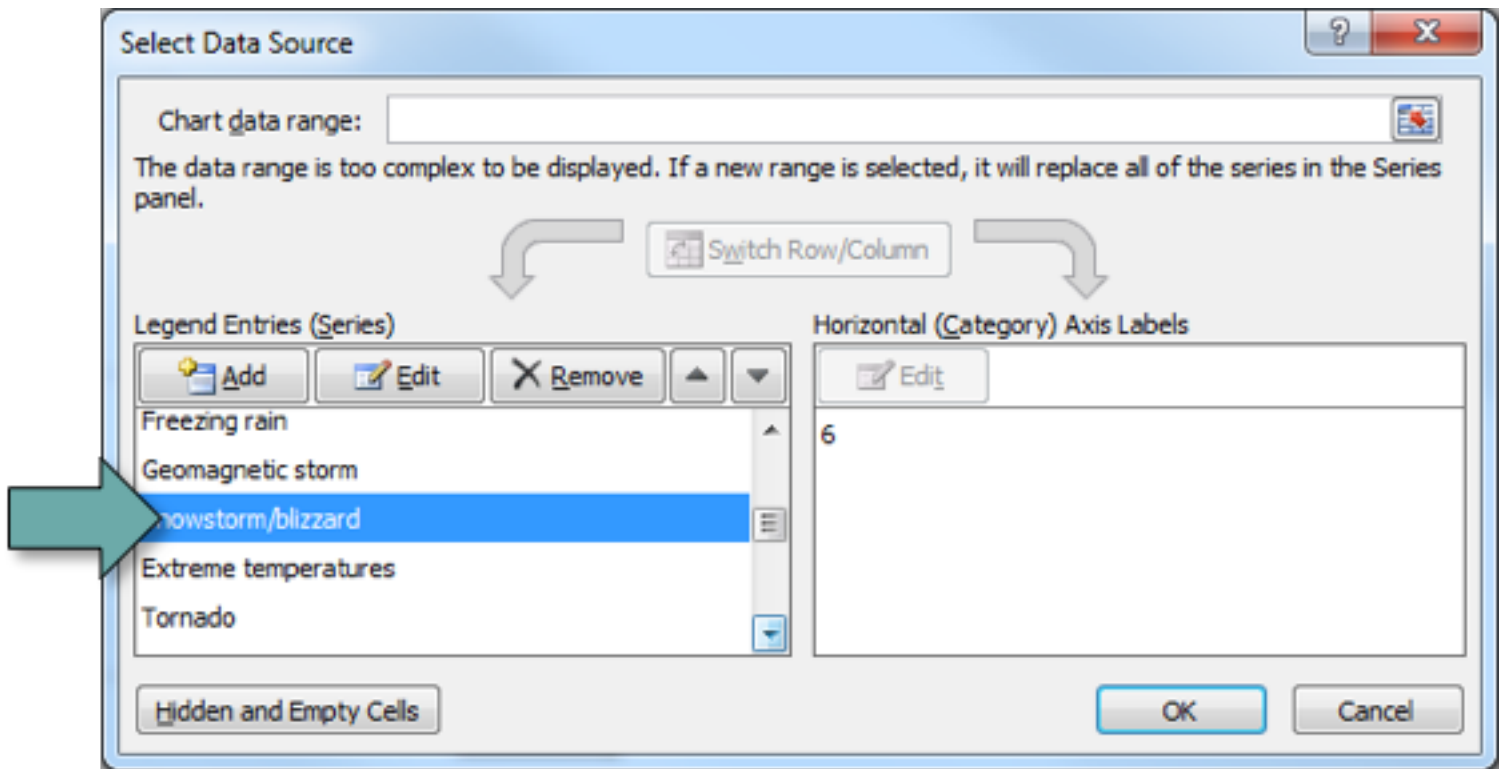
In this circumstance, the bubble associated with the larger risk is covering up the bubble associated with the smaller risk. To move the bigger bubble behind the smaller bubble, you need to reorder the data that is feeding this graph.

First: right-click anywhere on the respective graph and select “Select Data” from the menu that appears, as is shown to the right.

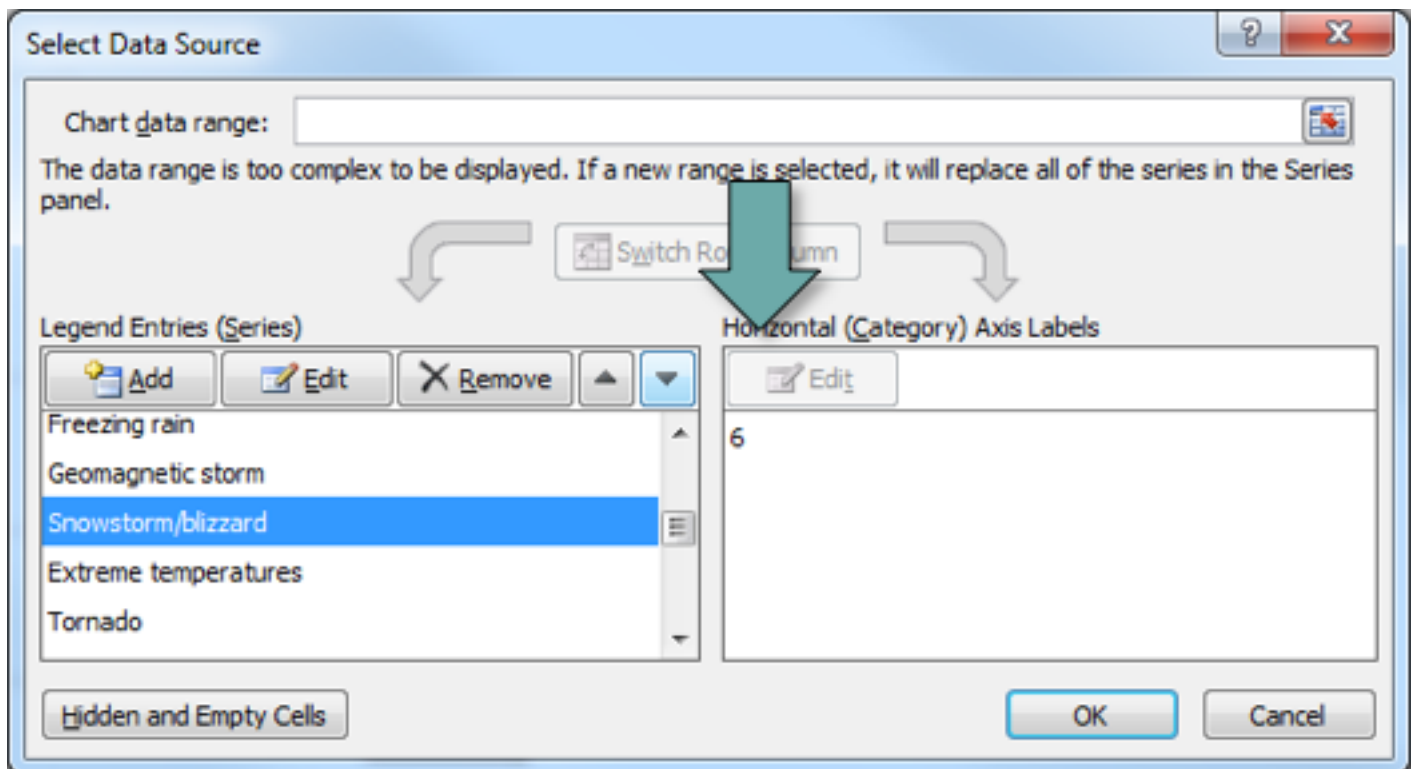
Next: the menu below will appear, listing all the data coming to this chart. Scroll down through the list until you find the associated hazard with the smaller risk score, by pushing on the indicated arrow below.



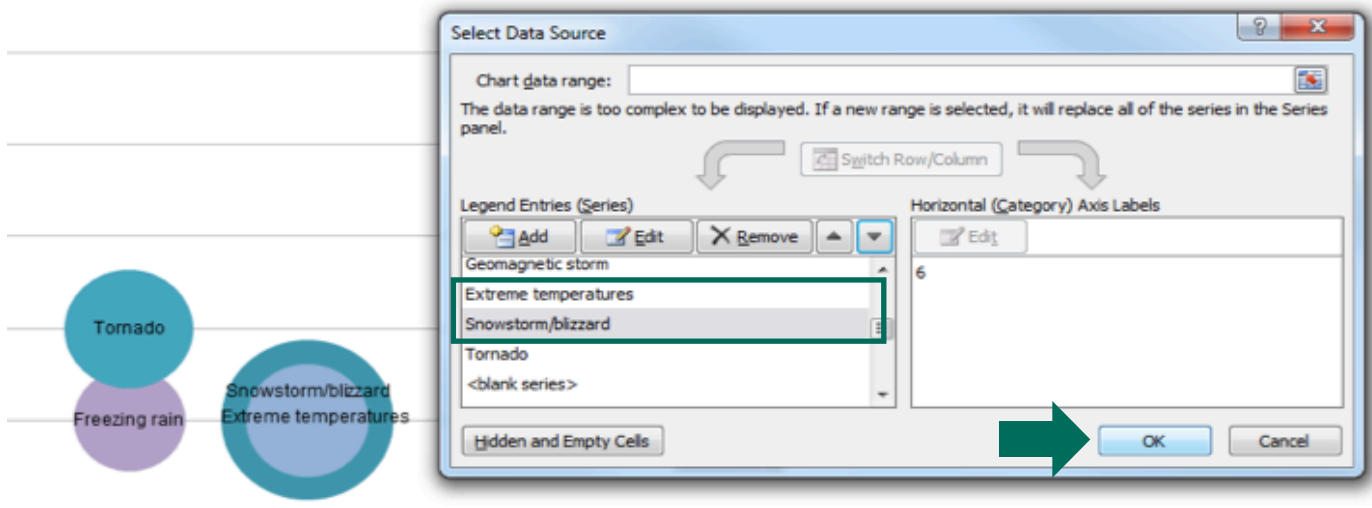
Select the hazard with the smaller risk score, in this case, "Snowstorm/blizzard". Do not select "OK" yet.



Now that you have selected the smaller hazard, you will want to move this hazard down the list so that it follows after the larger hazard, in this case "Extreme temperatures". Make sure the applicable hazard is highlighted, as is seen below, then push the down arrow as many times as necessary so that "Snowstorm/blizzard" comes after "Extreme temperatures", in the example shown here. It only needs to be pressed once.



Once you have done so, your graph will have moved the smaller bubble to the front. Select “OK” to close the window.



Just like in Situation 2 described above, you may need to move your labels so they clearly indicate which hazard is the larger risk. Complete that step here, if required (as it is in this example) and remember to save your work.

Monitor & Review

The last step in the HIRA process – congratulations on your progress!

Both the frequency of hazards we face and our vulnerability to them are dynamic and always changing. As such, it is critical to review your HIRA at least annually to ensure it reflects current risks. Further, if you have decided to tackle your HIRA in phases (e.g. only starting with the Mandatory hazard assessments), your pre-determined review cycle is an excellent opportunity to assess the next phase of hazards.

Emergency Contact Information List

The **Emergency Contact Information List** is provided to capture a summarized high level view of key contact information intended for use during an emergency. Key contact information should be readily available, updated on a routine basis and detail contact information for both CKD Program Staff and Patients. A template is offered on the following page, a template is offered as an example and may be modified to meet local requirements.

RECOMMENDED ACTIONS

1. Using the template provided, complete one template for CKD Program Staff and one template for CKD Patients.
2. Incorporate the completed template into your final CKD Emergency Management Plan.



Staff Planning: Roles and Responsibility

In the event of an emergency, the demand on existing resources may cause constraints requiring contingency planning to ensure continuity of priority clinical services and care. The objective of using the **Staff Planning: Roles and Responsibilities** template is to document the high level summary details of essential, deferred, reassigned roles and responsibilities by job title; and, identify key areas of how other facility staff who have been redeployed may be able to support prioritization of work of program staff in the event of an emergency. It is recommended that one template is used for each program service area to detail the staffing roles and responsibilities in the following categories:

- Essential Responsibilities
- Deferred Responsibilities
- Reassigned Responsibilities
- Redeployed Staff

Template Glossary of Terms

Term	Description
Staffing Role	Organization Job Title; Health Care Professional Designation (as applicable)
Essential Responsibilities	List of key areas of responsibility by role during an emergency
Deferred Responsibilities	List of responsibilities which could be deferred during an emergency
Reassigned Responsibilities	List of responsibilities deemed necessary to reassign to other identified job title/staff during an emergency
Redeployed Support Staff	List of areas where facility staff who have been redeployed from other areas may be used within a CKD program and require little to no training to support key activities during an emergency
Comments	Additional notes may be added here for reference



RECOMMENDED ACTIONS

1. Using the template provided, complete one template for all program staffing roles per program service area.
2. Complete details for each column as applicable within the template.
3. Incorporate the completed Staffing Responsibility Template into your final CKD Emergency Management Plan.

Staff Planning: Roles and Responsibility

Each program should develop templates based on local requirements. The example below is for educational purposes only.

Facility Name: Hospital XYZ **Program Area:** In-facility Hemodialysis Unit- North Tower

Key Roles and Responsibilities

Job Title	Essential	Deferred	Reassigned	Redeployed Support Staff	Comments
Program Manager	Program leadership, Staffing, scheduling of resources required for clinical care	Routine administration responsibilities	N/A	Other Facility Program Managers may be assigned to support	
Registered Nurse	Patient assessment & triage, patient assignments, medication administration, documentation	Routine health teaching; Frequency of assessment in stable patients	Dressing changes; Vital signs in stable patients	Patient registration	May be required to move resources to alternative sites of care
Dialysis Technologist	Machine set up and maintenance	Routine preventative maintenance	Machine set up/prime	N/A	May be required to move dialysis equipment to alternative sites of care
Social Worker	Counseling and support services for staff and patients	Coordination and placement of patients	N/A		
Renal Dietician	Dietary consultation and education	Comprehensive nutritional assessments in stable patients	N/A	N/A	
Clerical Staff	Patient registration; order entry as required; communication support	Routine administrative support functions		Communications Support	
Volunteers	Redirect patients and families			Other volunteers may be assigned duties	

Staff Planning: Roles and Responsibility Template

Facility Name: _____ Program Area: _____

Job Title Key Roles and Responsibilities

Job Title	Essential	Deferred	Reassigned	Redeployed Support Staff	Comments

Staff Planning: Operational and Emergency FTE Requirements

In the event of an emergency, the demand on existing resources may cause constraints requiring contingency planning on how to ensure continuity of priority clinical service and care. The **Staff Planning** templates are provided to document a high level summary of details related to staffing requirements by program service area, considering variables in capacity requirements and staffing availability in the event of an emergency. It is recommended that one template is used for each program service area to detail a staffing plan using the following categories:

- Normal Program Service Capacity
- Surge Program Service Capacity
- Current Staffing FTEs by Job Title
- Minimum Staffing Requirement FTEs by Job Title
- Key Considerations for Resource and Service Planning

Template Glossary of Terms

Term

Description

Normal Program Service Capacity

Total service capacity volume by service area during normal program operations.

Surge Program Service Capacity

Total anticipated service capacity (surge) volume by program service area in the event of an emergency.

Current Staffing (FTEs) by Job Title

Total number of staff (FTEs) roles by program service area during normal program operations.

Minimum Staffing (FTEs) by Job Title

Total minimum number of staff (FTEs) roles by program service area required based on service capacity in the event of an emergency.

Key Considerations during Reduced Staff Availability

Notes to detail key considerations for staff planning by program service capacity in the event staff availability is reduced in the event of an emergency.

RESOURCE AND SERVICE PLANNING

In reviewing staffing requirements this exercise will help to assess current and future state requirements related to resource and service planning and will be completed in three parts using the templates provided:

- Appendix L - Staff Planning: Operational FTE Requirements by Program Service Area
- Appendix M - Staff Planning: Emergency FTE Requirements by Priority Program Service Area

RECOMMENDED ACTIONS



- 1.** Complete an inventory of Current Operational FTEs by service area and job title (Appendix L).
- 2.** Complete an inventory of Emergency Staffing FTE requirements by Program Priority Service Areas (Appendix M).
- 3.** Identify areas where further resource and service planning are required in the development of a local CKD EMP.
- 4.** Incorporate completed documents into your final CKD EMP.

Annual Training and Education Checklist

The **Annual Training and Education Checklist** is provided to identify current capabilities with respect to staff and patient emergency preparedness training and exercises. By answering these questions it will help to identify opportunities to enhance existing training plans.

Key Areas to Consider

Annual Training and Education	Yes	No	Action Required
<p>Does the CKD program have a CKD emergency management training program in place for Program Staff?</p> <p>How often is training provided for staff?</p> <p>When was the last training session provided?</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>Does the CKD program have a CKD emergency management training program in place for Patients?</p> <p>How often is training provided for patients?</p> <p>When was the last training session provided?</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>Does the CKD program have a CKD emergency management training program in place for Program Volunteers?</p> <p>How often is training provided for volunteers?</p> <p>When was the last training session provided?</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>When training CKD program staff, are training exercises conducted on all shifts?</p>	<input type="checkbox"/>	<input type="checkbox"/>	

What forms of emergency management training are used?

- Seminars
- Table Top Exercises
- Mock Disasters

Seminars: Informal education designed to inform and educate on emergency management policy and procedures.

Tabletop Exercises: Staff meet to review emergency management plans without an actual simulation of the disaster. Tabletop exercises may be case-based to focus on specific response efforts and used to assess existing plans, policies and procedures.

Mock Disasters: Staff are involved in a simulated disaster scenario training; training may involve more than one program/agency in order to implement and evaluate effectiveness of response.

Does your program have patient education materials on emergency preparedness?

Do emergency management training sessions include scenarios on emergency patient evacuation procedures to alternative sites of care?

Do emergency management training sessions include scenarios on managing CKD surge demand?

The Final Checklist

Understanding your role and the roles of others is key in emergency management planning. The planning process should include a series of assessments, analyses and prioritization exercises designed to focus planning effort and requirements in order to produce a comprehensive emergency management plan designed to meet the needs of the local CKD Program and population. **The Final Checklist** can be used as a reminder to ensure the various steps, activities and key actions presented throughout The Guide are addressed.

Key Activities and Actions

Step 1 – Establish a Planning Team and Process	Initiated	Complete	Notes
Administrative and Physician CKD EMP leaders identified.	<input type="checkbox"/>	<input type="checkbox"/>	
Planning team membership; roles and responsibilities established.	<input type="checkbox"/>	<input type="checkbox"/>	
Executive sponsorship for Planning team secured.	<input type="checkbox"/>	<input type="checkbox"/>	
Governance Framework established and operational.	<input type="checkbox"/>	<input type="checkbox"/>	
Review of existing emergency management plans, policies and/or procedures completed.	<input type="checkbox"/>	<input type="checkbox"/>	
Timelines and key deliverables for planning team established.	<input type="checkbox"/>	<input type="checkbox"/>	

Step 2 – Complete a Program Capacity and Capabilities Assessment	Initiated	Complete	Notes
Renal program Clinical Services Listing re-view and documentation completed.	<input type="checkbox"/>	<input type="checkbox"/>	
Priority Patient Groups identified.	<input type="checkbox"/>	<input type="checkbox"/>	
Triage and Screening processes identified.	<input type="checkbox"/>	<input type="checkbox"/>	
CKD surge demand and capabilities assessment completed and opportunities for improvement identified.	<input type="checkbox"/>	<input type="checkbox"/>	
CKD critical infrastructure assessment complete and potential hazards and risks identified and contingency planning commenced.	<input type="checkbox"/>	<input type="checkbox"/>	
Renal dialysis capital equipment inventory listing completed.	<input type="checkbox"/>	<input type="checkbox"/>	
Renal product consumables (supplies) assessment complete with contingency planning underway.	<input type="checkbox"/>	<input type="checkbox"/>	
Emergency supply and process for re-supply of renal consumable products established.	<input type="checkbox"/>	<input type="checkbox"/>	
Results of Program Capabilities and Capacity Assessment shared with senior leaders for feedback and recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	

Step 3 – Conduct a CKD HIRA	Initiated	Complete	Notes
CKD HIRA complete and local hazards and risks identified.	<input type="checkbox"/>	<input type="checkbox"/>	
CKD HIRA complete and local hazards and risks prioritized and planning requirements identified.	<input type="checkbox"/>	<input type="checkbox"/>	
Results of CKD HIRA shared with senior leaders for feedback and recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	
Step 4 – Develop a CKD EMP	Initiated	Complete	Notes
Develop detailed documentation of Priority Clinical Services available during an emergency.	<input type="checkbox"/>	<input type="checkbox"/>	
Develop detailed documentation for Priority Patient Groupings.	<input type="checkbox"/>	<input type="checkbox"/>	
Develop policies and procedures for local Triage and Screening of CKD Patients in the event of an emergency.	<input type="checkbox"/>	<input type="checkbox"/>	
Develop detailed contingency plans to maintain critical infrastructure including emergency power and water supplies.	<input type="checkbox"/>	<input type="checkbox"/>	
Develop detailed contingency plans to maintain other critical infrastructure services including: biohazard waste removal, laboratory and radiology services as required.	<input type="checkbox"/>	<input type="checkbox"/>	

Step 4 – Develop a CKD EMP (Con’t)	Initiated	Complete	Notes
Develop contingency plans necessary to mitigate, prevent or prepare for identified hazards and risks based on the CKD HIRA.	<input type="checkbox"/>	<input type="checkbox"/>	
Define and develop the necessary processes and procedures to support a minimum level of emergency dialysis equipment and supply required to ensure continuity of clinical care during an emergency event.	<input type="checkbox"/>	<input type="checkbox"/>	
Define the minimum emergency staffing requirements, key roles and responsibilities by identified priority service areas for use in the event of an emergency.	<input type="checkbox"/>	<input type="checkbox"/>	
Identify and develop contingency plans to utilize alternative sites of clinical care in the event of an emergency.	<input type="checkbox"/>	<input type="checkbox"/>	
Develop capabilities to ensure rapid transport of patients and staff to support emergency transfers to in-patient units; and, emergency transfers of patients and staff to alternative sites of care.	<input type="checkbox"/>	<input type="checkbox"/>	
Develop an emergency CKD specific communication plan for staff, patients and families.	<input type="checkbox"/>	<input type="checkbox"/>	
Develop a comprehensive training and education program for staff, patients, caregivers and volunteers.	<input type="checkbox"/>	<input type="checkbox"/>	

Step 4 – Develop a CKD EMP (Con’t)	Initiated	Complete	Notes
Identify and detail potential resource and support available from other local, regional and provincial partners and consider who to incorporate into local CKD plans.	<input type="checkbox"/>	<input type="checkbox"/>	
Compile all identified CKD EMP content into formal documentation formats as per local requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
Establish and conduct annual reviews of local CKD EMP to identify opportunities for continuous improvement.	<input type="checkbox"/>	<input type="checkbox"/>	



Ontario Renal Network

Reference Information

more

REFERENCE INFORMATION

ACCREDITATION CANADA – LEADERSHIP STANDARDS

R1

Below are the most recent Accreditation Canada (2015) Qmentum Leadership Standards (v10) adapted and used with permission for reference. Accreditation Canada plans annual updates to these standards and therefore, CKD Programs should refer to the Accreditation Canada website for more information. It is recommended in the development of local CKD Emergency Management Plans that these standards be used as a guide.

Accreditation Standards (2015) Qmentum Leadership Standards (v10) are as follows:

- A structured process is used to identify and analyze actual and potential risks or challenges.
- Plans for preventing and mitigating potential disasters and emergencies are developed and implemented.
- An all-hazard disaster and emergency response plan is developed and implemented.
- The all-hazard disaster and emergency response plan is aligned with those of partner organizations and local, regional and provincial governments.
- Education is provided to support the all-hazard disaster and emergency response plan.
- The organization's all-hazard disaster and emergency response plans are regularly tested with drills and exercises to evaluate the state of response and preparedness.
- The results from post-drill analysis and debriefings are used to review and revise the all-hazard disaster and response plans and procedures as necessary.
- An incident management system is developed and implemented to direct and coordinate actions and operations during and after disasters and emergencies.
- An emergency communication plan is developed and implemented.
- A business continuity plan is developed and implemented in order to continue critical operations during and following a disaster or emergency.
- The business continuity plan addresses back-up systems for essential utilities and systems during and following emergency situations.
- When disasters or emergencies occur, teams, clients, and the community are provided with support and debriefing opportunities.

More information can be located on the Accreditation Canada Website: www.accreditation.ca

PRIORITY PATIENT GROUPS

R2

The following is a guideline for CKD Service Providers and has been adapted from the Ontario Health Plan for an Influenza Pandemic (Aug 2008) – Chapter 17C – Chronic Kidney Disease. The table below provides a description of each priority group and examples of patient types.

Every CKD Service Provider should establish Priority Patient Groupings to be used in the event of an emergency.

Priority	Description	Examples
Priority A	<p>Patients are deemed critical; condition is immediately life threatening.</p> <p>Programs must find ways for treatment can be instituted or continued</p>	<p>CKD patients requiring life sustaining treatments (hemodialysis, peritoneal dialysis).</p> <p>Urgent body access to make dialysis possible; urgent PD catheter issues; any dialysis access failing or in jeopardy.</p> <p>Stage 4 and 5 ESRD patients for whom a kidney is available for a transplant; post-renal transplant patients with Stage 5 kidney disease who require renal replacement therapy; or, medically unstable kidney transplant patient requiring frequent medical review.</p> <p>Acute kidney injury patients or kidney failure requiring immediate treatment to avoid permanent loss of function.</p>
Priority B	<p>Patients whose condition is not deemed to be life threatening for whom services can be deferred or discontinued for a portion of the emergency event.</p> <p>Physicians will determine patients are not put at undue risk.</p> <p>Any change in patient status could move patient to Priority A Group.</p>	<p>Progressive renal insufficiency patients who require urgent clinical care.</p> <p>Home dialysis (hemodialysis or peritoneal dialysis) who are near the end of home training should complete training and be sent home.</p> <p>Post-renal transplant patients who require urgent clinical care; recently transplanted patients requiring ongoing monitoring to avoid organ rejection.</p>
Priority C	<p>Patients whose condition is not deemed to be life threatening for whom services can be discontinued for the duration of the emergency event.</p>	<p>Patients for whom routine follow-up or screening can reasonably wait until the emergency event is over.</p> <p>New home hemodialysis installations.</p> <p>Home dialysis patients who do not meet Priority A or B criteria.</p>

EMERGENCY MANAGEMENT PLANNING PROCESS

R3

Four key elements comprise the emergency management planning process. The development of prevention and mitigation strategies is focused on reducing the overall risk and impact so the potential event no longer results in a hazard or disaster. Preparedness strategies focus on improving the ability of a CKD Service Provider to respond to emergencies; therefore, shifting the threshold for which a hazard or disaster may occur through the effective use of resources and detailed action planning. Response planning is focused on a coordinated implementation of preparedness strategies. The recovery phase of emergency management planning focuses key actions necessary to return to a normal state as soon as possible after the emergency event.

Table 1 below highlights the key benefits, activities, timing and anticipated outcomes from each phase of emergency management planning.

Planning Phase	Benefits	Key Activities	Timing	Outcomes
Mitigation & Prevention	<ul style="list-style-type: none"> Build partnerships Increase awareness to local hazards and risk Improve resource allocation Communicate priorities Align with other risk reduction organizational activities 	<ul style="list-style-type: none"> Complete a CKD HIRA Share best practices and approaches Identify opportunities to continuously improve 	Activities take place before or after an emergency	<ul style="list-style-type: none"> Build capacity and capabilities Create system redundancies and contingencies Develop policies and procedures
Preparedness	<ul style="list-style-type: none"> Improve responsiveness Clarify roles and responsibilities Enhance knowledge and skill Establish formal agreements 	<ul style="list-style-type: none"> Secure resources necessary Develop training and educational programs for staff and patients Formalize working relationships with other organizations and facilities 	Key activities take place before the emergency	<ul style="list-style-type: none"> Annual training, education and exercises Annual patient education and awareness campaigns Establish dialysis product emergency supply initiatives
Response	<ul style="list-style-type: none"> Continuity of clinical services 	<ul style="list-style-type: none"> Execution of CKD EMPs 	Activities take place during the emergency	<ul style="list-style-type: none"> Timely response Effective resource allocation Continuity of care
Recovery	<ul style="list-style-type: none"> Timely return to normal state as soon as possible after the event 	<ul style="list-style-type: none"> Debriefing post event Formal transition to normal operations 	Activities commence during the emergency and continue after the emergency	<ul style="list-style-type: none"> Ongoing improvement and evolution of CKD EMPs

Table 1 - EMP Process

MESSAGES FOR USE IN THE EVENT OF AN EMERGENCY

Establishing communication tools in advance of an emergency includes not only the messages, but also the methods to disseminate critical information to staff, patients and the public. A detailed communication plan should be developed which meets local CKD Program requirements and optimizes the use of multiple forms of communication channels to disseminate the message to patients, staff and the public in the event of an emergency. Communication plans may be directed to support staff, patient and/or public informational needs.

Examples of communication methods include the following:

- Telephone
- Email
- Websites
- Voicemail
- Facility Signage
- Public Notices
- Newspaper
- Hospital Switchboard

In the pages to follow, a series of modifiable messages are included for reference in the development of local communication tools for use during an emergency event. The following examples are provided for educational purposes only and offer modifiable scripts with proposed indications for use and communication methods as a reference. CKD Service Providers are required to develop local communication tools and processes in consultation with hospital/facility personnel as appropriate. The details of the CKD Program Communication Plan should be included in the local EMP document.

EXAMPLE 1: PRIOR TO AN EMERGENCY – PUBLIC INFORMATION

Communication Method: CKD Program Website, Telephone Communication

An Important Notice Regarding Clinical Services at <CKD Program Name> During <Type of Emergency>

In anticipation of complications which may arise from <name/type of emergency> the <CKD Program name> recommends that CKD patients prepare themselves for the possibility of unavailability or delay in clinic/dialysis services. It is anticipated this delay may extend for a period of xxx days.

Further updates will be provided by <CKD Program name> on this website and program voicemail as new information becomes available.

EXAMPLE 2: DURING AN EMERGENCY – PATIENT COMMUNICATION

Communication Method: CKD Program Website; Telephone Communications

An Important Notice About Your Treatment/Care at <CKD Program Name> During <Type of Emergency>

Due to the <name/type of emergency> the <CKD Program name> will be closed until further notice.

If you are a CKD patient, please go to <location> as your <CKD Program Staff> have made arrangements for your treatment at an alternative renal program facility on <insert date/time here>. You should also bring with you information regarding your treatment prescription, medical history and a current list of medications you are taking.

EXAMPLE 3 - FOLLOWING AN EMERGENCY – PUBLIC OR PATIENT MESSAGING

Communication Methods: CKD Program Website, Telephone Communication Cascade to CKD Patients

An Important Notice Regarding Resuming CKD Treatment/Care Following <Type of Emergency>

Please note that <CKD Program Name> has reopened its facility as of <insert date/time here>. Although we are prepared and able to resume providing renal program services <include details>, we ask that you call ahead to confirm your scheduled treatment/clinic time in the event you have not heard from one of our program staff. We are making every attempt to see as many patients as possible and ask for your patience as we are experiencing a higher than usual volume of patients requiring services. <Programs should consider adding additional details as appropriate (i.e. extended hours of operation, changes to dialysis/clinic schedules)>.

EXAMPLE 4: PRIOR TO THE EMERGENCY – VOICEMAIL MESSAGE

Communication Method: CKD Program Phone / Voicemail Message

An Important Notice in Advance of a Known Emergency Event

Hello, you have reached <name of CKD Program> on <insert date/time>.

Please listen carefully to the following important information about the CKD Program and Services.

In anticipation of complications which may arise from <type of emergency> the <CKD Program name> recommends that patients <by service area> prepare themselves for the possibility of unavailability or delay in dialysis services for a period of xx hours/days.

The <CKD Program name> will provide updates on this voicemail system as they become available.

Thank you.

Whether you are the leader responsible for the development of the plan or a team member participating in plan development, everyone has a role in the planning process. The following information is for reference purposes to support local planning efforts.

ESTABLISH TEAM ROLES AND RESPONSIBILITIES

A variety of tools are available to support local teams to assign accountability and responsibility during the planning process. The RACI (Responsible, Accountable, Consulted and Informed) Model is one example of a framework used to define team members' level of participation required to complete key tasks and deliverables assigned. Team members may have different levels of participation depending on the activity; however usually only one individual is accountable for the overall action. In **Table 1 – RACI Model** below offers a brief description of team members' level of participation and role in the planning process.

Level of Participation	Role
Responsible (R)	Team member(s) who completes work required to achieve the task and/or deliverable as a part of the planning process.
Accountable (A)	Team member who may assign or delegate work and ensures work is completed as required by the person(s) Responsible as a part of the planning process.
Consulted (C)	Team member who has unique or specialized knowledge or skill; often referred to as a subject matter expert who are sought for their opinion and advise team members to support the completion of tasks and deliverables of the planning process.
Informed (I)	Team member who is kept informed and provided regular updates throughout the process.

Table 1 - RACI Model

ESTABLISH A GOVERNANCE FRAMEWORK

The value of an effective governance framework should not be underestimated. Governance refers to the processes used by the team to ensure clarity of purpose; effective interaction, communication and decision making; resource allocation; and, conflict resolution as required to achieve the desired result. Governance models are organizational structures which provide clarity of roles and responsibilities and accountability to all team members to deliver the desired results.

In **Figure 1 – Governance Model**, a sample governance structure and key roles are depicted below as an example of how local governance may be established.



Figure 1 - A Governance Model

Executive Sponsor:

- Leadership, guidance, direction and final approvals for local planning teams.

CKD Steering Committee:

- Provides strategic direction and oversight of the planning process, activities and key deliverables.
- Responsible for establishing plans, decision making, conflict resolution and communication/updates to executive sponsors.

Working Groups:

- Drive detailed plan development.
- Responsible for on-time delivery of assigned tasks associated with the planning process.

Ad Hoc Members:

- Provide subject matter expertise to planning team in order to inform, educate and support tasks or work assignments.

In addition to a governance framework, teams often create a **'Terms of Reference' (TOR)** document. A TOR document serves as the foundation for both defining the work and determining how work will be completed as a team. TORs may define expected team behaviours, values and beliefs as well as offer more detailed information regarding the scope of work and deliverables. For example, a TOR document may detail the following types of information:

- Purpose of the Planning Team
- Team Membership, Behaviours, Values
- Roles and Responsibilities and Accountability
- Methods Used to Work Together
- Meeting Frequency and Effectiveness
- Sharing Information, Communications
- Decision Making, Conflict Resolution
- Definitions

ESTABLISH AN ANNUAL PLANNING CYCLE

Emergency Management Planning (EMP) is a dynamic process and should be integrated within the normal business and clinical planning cycles versus being seen as a separate activity. EMP is a continuum whereby the process of annual reviews, practical exercises and updates are incorporated to improve the emergency management plan each year. **Figure 2 – Emergency Management Planning Cycle** below, is an example of the four functions of CKD emergency management planning that have been incorporated within an annual business planning cycle.

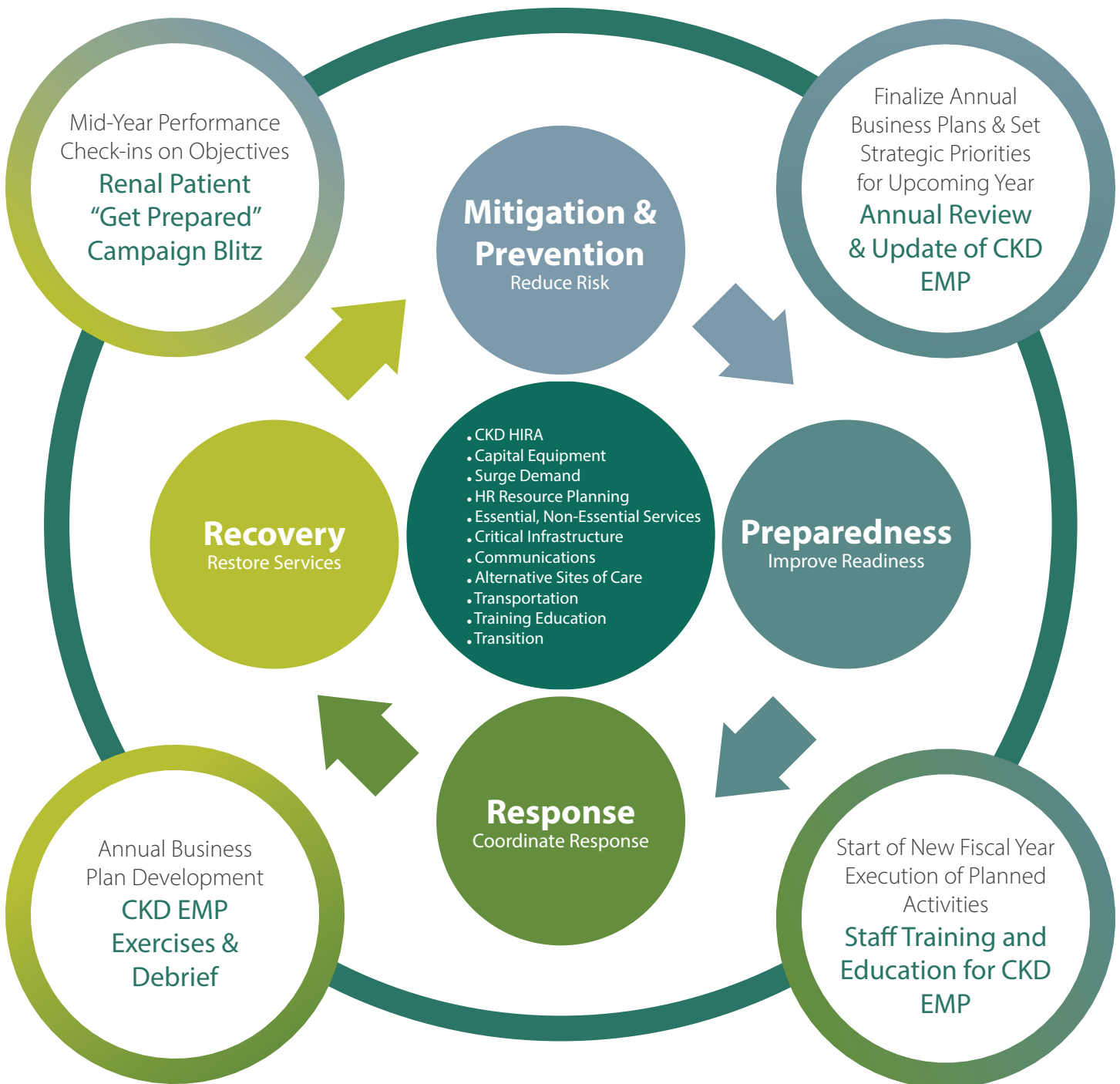


Figure 2 - Emergency Management Planning Cycle

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About the Ontario Renal Network

The Ontario Renal Network – a division of CCO and the Ontario government’s chronic kidney disease advisor – is committed to facilitating a province-wide effort to diminish the burden of chronic kidney disease on Ontarians and the healthcare system.

It provides leadership and strategic direction to effectively fund, organize and manage the delivery of kidney care services in Ontario in a consistent and coordinated manner. This includes preventing or delaying the need for dialysis, broadening appropriate patient-care options, improving the quality of all stages of kidney care, and building a world-class system for delivering care to Ontarians living with CKD.

The Ontario Renal Network consists of a vast array of partners including healthcare professionals, Regional Renal Program staff, partner health agencies and organizations, patients and families, and many others. By working collaboratively, the Ontario Renal Network can better leverage the competencies and assets of all, to better achieve our common goals of creating a safe, sustainable, efficient and effective kidney care system for Ontario. In total, 26 Regional Renal Programs provide dialysis and other kidney care services to over 100 facilities (including hospital and community-based facilities). Community partners, such as long- term care homes and independent health facilities also provide kidney care services.

People with CKD and their families are at the centre of the network. The Ontario Renal Network actively engages people with chronic kidney disease and their families in the design, delivery and evaluation of Ontario’s kidney care system.

The Ontario Renal Network shares CCO’s mission of working together to improve the performance of Ontario’s kidney care system by driving quality, accountability, innovation and value.



Ontario Renal Network

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