

Strategies for Planning Paediatric Surge Capacity in a Pandemic

Where can I obtain the Ontario Health Plan for an Influenza Pandemic (OHPiP)?

The Ontario Health Plan for an Influenza Pandemic (OHPiP) describes how Ontario's healthcare system will respond to an influenza pandemic and can be located through the link

http://www.health.gov.on.ca/english/providers/program/emu/pan_flu/pan_flu_plan.html .

Where can I find the OHPiP section on Surge Capacity Planning?

OHPiP is organized into three sections and 22 chapters. The 'surge-capacity pandemic planning' can be found in *Chapter 17 Acute Care Services*, subsection 17.2 Hospital Capacity, sub-heading *Developing Surge Capacity*. Acute Care Services sets out approaches that acute care hospitals can use to manage their resources during a pandemic, including determining who will be admitted to critical care and how acute care settings will make decisions about limited resources.

What approach should I take when developing Surge Capacity?

Based on the FluSurge estimate for a 35% attack rate, ICUs will be immediately affected, followed by rapidly increasing pressures on acute beds. By the end of the first week of the pandemic, influenza patients will require 37% of ICU bed and 16% of acute care bed capacity. To be able to meet pandemic demands, hospitals must develop a phased approach to surge capacity, including the deferral of noninfluenza care and the dynamic use of influenza triage and admission/discharge criteria constantly adjusted to hospital capacity. Recent reviews of emergency response arrangements in the United States suggest that 20% surge capacity is the maximum upper limit to any hospital "surge in place" response during major emergencies.

Are there any guides to assist me with my surge capacity strategies for my hospital?

The table below outlines strategies that hospitals can use to respond to the need for surge capacity. With a 35% attack rate, the phased development of surge capacity will not free up sufficient resources to meet needs during the peak periods of pandemic demand. After hospital surge capacity and other health system resources have been exhausted, mass emergency care will be declared in order to ensure the fair and equitable allocation of scarce resources, and maximize the benefit to the population at large.

Surge Levels During an Influenza Pandemic	Surge Strategies		Response Level	IMS Command Function
Pre-Surge	Basic	<ul style="list-style-type: none"> Staffed and operational beds open Some approved beds closed due to resource constraints 	Intra facility	Hospital
Minor Surge 5% to 10%	Enhanced	<ul style="list-style-type: none"> Open approved ICU and ventilator-supported beds as staff redeployment/recruitment permits Defer elective surgery up to 72 hours as per routine surge protocols Cohort/Isolate influenza patients in ER, acute units, and ICU/ventilator units 	Intra facility	Hospital
Moderate Surge 11% - 15%	Augmented	<ul style="list-style-type: none"> Establish early discharges; home care transfers; ALC transfers to LTC Homes Open more ICU/ventilator beds where oxygen available (e.g., operating rooms or post anesthetic care units) Defer some treatment for non-life threatening condition if no severe adverse health consequences anticipated from the delay 	Intra facility	Hospital
Major Surge 16% - 20%	Optimum	<ul style="list-style-type: none"> Defer all treatment for non-life threatening conditions where no severe adverse health consequences are anticipated from a delay 	Inter facility	Region Province
Large Scale Emergency > 20%	Over capacity	<ul style="list-style-type: none"> No more beds available Maintain services for life-threatening conditions Triage for all treatment Mass Emergency Care 	Inter facility	Province

Is there a specific Paediatric section within OHPiP?

Yes, Chapter 18 contains a Paediatric Services component of the provincial plan. Chapter 18 identifies specific strategies to meet the needs of children http://www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip2/ch_18.pdf and

Chapter 18A highlights issues for healthcare settings specific for children

http://www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip2/ch_18a.pdf .

Is there a template that has been created as a planning model to assist hospitals with staffing requirements during a pandemic?

SickKids has created a 'Priority Ranking Staffing Template' to serve as a basis for departments to plan staffing requirements as part of their pandemic planning. This template is included in Appendix A to assist you with your staffing requirements through the stages of a pandemic.

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Appendix A: Priority Ranking and Disaster Strategy for Pandemic Influenza

Program:

As part of our ongoing **Pandemic Influenza Preparedness**, we are requesting that you review the Disaster Planning Strategy you and your team prepared (**Column A,B,C**) and now focus on the clinical staffing that would be required to manage reduced caseloads in your ambulatory and in-patient programs in the event of a disaster.

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In **Column D**, for reductions in Ambulatory caseload, please identify all the minimum staffing (discipline, number, name) that would be required to manage clinical care; for reductions in In-patient caseload, please identify only the Medical and Advanced Practice Nursing staff that would be required to manage clinical care.

In **Column E**, identify any back-up staffing that you could call upon should your first line staffing be unavailable and describe how you would go about obtaining this back-up staff.

In **Column F**, please identify any risks to your patient population and strategy if your minimum staffing and back-up staffing are not met.

Column A Priority Ranking ¹²	Column B Patient Groups/ Conditions Seen by Priority Ranking	Column C Disaster Planning Strategy	Column D First Line Staffing Requirements	Column E Back-up Staffing Requirements	Column F Risk
I. Within 24 hrs. IIa. >24 hrs. to 1 wk IIb >1 wk to 3 wks III > 3 wks to 6 wks. IV > 6wks. to 3 mos. V > 3mos. to 6 mos. VI > 6mos. to 12 mos.		Outline how your department will decrease clinical operations by 1) 10%, 2) 20%, 3) 30%, 4) 50% (please use you guidelines and priority ranking as guide)	Identify the minimal staffing that would be required to manage: Ambulatory (all Staffing) a) 30% reduction in your Ambulatory caseload b) 50% reduction in your Ambulatory caseload	Identify any back-up staffing in the event that your first line staffing is not available Ambulatory (all Staffing) a) Back-up staffing for 30% reduced caseload b) Back-up staffing for 50% reduced caseload	To help identify priority areas for re-deployment, please describe the risk to your capacity strategy and patient populations if: Ambulatory a) Risk if staffing requirements for 30% reduced caseloads not met b) Risk if staffing requirements

¹ Current literature suggests the use of a priority scoring methodology and evidenced based referral guidelines to ensure consistency in prioritization and support of timely and appropriate access to health care services (DeCoster, 2002; Hadorn, 2003; Pitt et al., 2003; Murray, 2002). All surgical and medical programs adopted the Saskatchewan surgical network methodology which includes 6 levels of priority each with an associated timeframe during which a patient should be seen/ treated. Further gradation was introduced into the methodology for the paediatric population within Level II incorporating timeframes of 24hrs to 1 week (Level IIa) and 1 week to 3 weeks (Level II b). The priority ranking methodology does not supersede CTAS scoring within the Emergency Department or priority ranking within Critical care-both of which are based on hours versus days as timeframes for assessment and treatment

² Glynn, P., Donnelly, L., Calder, D., and Brown, J. (2003).The Saskatchewan surgical care network-Toward timely and appropriate access. Hospital Quarterly, 7 (1), 44-48

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Column A Priority Ranking	Column B Patient Groups/ Conditions Seen by Priority Ranking	Column C Disaster Planning Strategy	Column D First Line Staffing Requirements	Column E Back-up Staffing Requirements	Column F Risk
		e.g. to decrease by 10% you may not book FU and new referrals rated as a priority level VI	Inpatient (MD, APN Staffing only) c) 30% reduction in your inpatient caseload d) 50% reduction in your inpatient caseload	Inpatient (MD Staffing only) c) Back-up staffing for 30% reduced caseload d) Back-up staffing for 50% reduced caseload	for 50% reduced caseloads not met Inpatient c) Risk if staffing requirements for 30% reduced caseloads not met d) Risk if staffing requirements for 50% reduced caseloads not met
Priority I <24 hrs		Reduce 10% by Reduce 20% & 30% by Reduce 50% by	Ambulatory a) 30% reduction in your Ambulatory caseload Identify the number and name, of each resource that would be required in Ambulatory For Example MD-2 (Allen, Read) RN-1 (Parker) APN-1(Malloy)	Ambulatory a) Back-up staffing for 30% reduced caseload Identify the number and name, of each back-up resource that would be required For Example MD-1 (Adams) RN-2 (Brown, Johns) APN-0	Ambulatory a) Risk if staffing requirements for 30% reduced caseload not met For Example: Without minimal staffing, Priority 1 patients would not be treated and risk severe complications, perhaps death.
Priority IIa 1-7days			Ambulatory b) 50% reduction in your Ambulatory caseload Identify the number and name, of each resource that would be required in Ambulatory	Ambulatory b) Back-up staffing for 50% reduced caseload Identify the number and name, of each back-up resource that would be	Ambulatory b) Risk if staffing requirements for 50% reduced caseload not met For Example: Without minimal staffing, Priority 1

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			For Example MD-2 (Allen, Read) RN-1 (Parker) APN-1(Malloy)	required For Example MD-1 (Adams) RN-2 (Brown, Johns) APN-0	patients would not be treated and risk severe complications, perhaps death.
Priority IIb 1-3 weeks			Inpatient c) 30% reduction in your inpatient caseload Identify the number and name, of each MD and APN resource that would be required in Inpatient For Example MD-2 (Allen, Read) APN-1(Malloy)	Inpatient c) Back-up staffing for 30% reduced caseload Identify the number and name, of each back-up resource that would be required For Example MD-1 (Adams) APN-0	Inpatient c) Risk if staffing requirements for 30% reduced caseload not met For Example: Without minimal staffing, Priority 1 patients would not be treated and risk severe complications, perhaps death.
Priority III 3-6 weeks			Inpatient d) 50% reduction in your inpatient caseload Identify the number and name, of each MD and APN resource that would be required in Inpatient For Example	Inpatient d) Back-up staffing for 50% reduced caseload Identify the number and name, of each back-up resource that would be required	Inpatient b) Risk if staffing requirements for 50% reduced caseload not met For Example: Without minimal staffing, Priority 1 patients would not be treated and risk severe complications, perhaps death.

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			MD-2 (Allen, Read) APN-1(Malloy)	For Example MD-1 (Adams) APN-0	
Priority IV 6 weeks -3 months					
Priority V 3-6 months					
Priority VI 6-12 months					

