Phases of a Pandemic (Triggers for Actions)

Phases of a Pandemic		
Phase	**Definition**	**Example(s)**
	Period: Inter-pandemic	
1.0	No new virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals located outside of Canada. If present in animals, the risk of human infection and/or disease is considered to be low.	Highly pathogenic H7N3 detected in poultry outside of Canada.
1.1	No new virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection is present in animals in Canada but the risk of human infection and/or disease is considered to be low.	Highly pathogenic H7N3 detected in a poultry flock in Canada.
2.0	No new virus subtypes have been detected in humans. However, an animal influenza virus subtype that poses substantial risk to humans is circulating in animals located outside of Canada.	Highly pathogenic H5N1 detected in poultry flocks outside of Canada.
2.1	No new virus subtypes have been detected in humans. However, an animal influenza virus subtype that poses substantial risk to humans is circulating in animals in Canada	Highly pathogenic H5N1 detected in poultry flocks inside of Canada.
	Period: Pandemic Alert	
3.0	Outside Canada human infection(s) with a new subtype are occurring, but no human-to-human spread or, at most, rare instances of spread to a close contact has been observed. No cases identified in Canada	Outside Canada sporadic human cases are occurring in connection to an avian flu outbreak.
3.1	Single human cases(s) with a new subtype detected in Canada. The virus is not known to be spreading from human-to-human or, at most, rare instances of spread to a close contact have been observed.	Case imported into Canada from area outside Canada experiencing an avian outbreak. Case arising in Canada "de novo" or in association with an avian outbreak in Canada.

Period: Pandemic Alert (continued)		
4.0	Outside Canada small cluster(s) with limited human-to-human transmission are occurring but spread is highly localized, suggesting that the virus is not well adapted to humans. No cases identified with these cluster(s) have been detected in Canada.	Outside Canada small cluster(s) of human cases with a novel virus are occurring in connection to an avian outbreak.
4.1	Single human case(s) with the virus that has demonstrated limited human-to-human transmission detected in Canada. No cluster(s) identified in Canada.	Detection of an imported case in Canada that is infected with the novel virus known to be causing small clusters of human cases outside Canada.
4.2	Small localized clusters with limited human-to-human transmission are occurring in Canada, but spread is highly localized suggesting that the virus is not well adapted to humans.	Detection of a localized cluster of cases in Canada linked to an imported case or from cases arising in Canada.
5.0	Outside Canada larger cluster(s) are occurring but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk). No cases identified with these clusters have been detected in Canada.	Outside Canada larger cluster(s) of human cases with a novel virus are occurring.
5.1	Single human case(s) with the virus that is better adapted to humans detected in Canada. No cluster(s) identified in Canada.	Detection of an imported case in Canada that is infected with the virus known to be causing larger clusters of human cases outside Canada.
5.2	Larger localized cluster(s) with limited human-to-human transmission are occurring in Canada but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible.	Detection of a large but localized cluster of cases in Canada linked to an imported case OR from cases arising in Canada.

Period: Pandemic		
6.0	Outside Canada increased and sustained transmission in the general population has been observed. No cases have been detected in Canada.	Countries outside of Canada have reported sustained transmission of the new virus in their population.
6.1	Single human case(s) with the pandemic virus detected in Canada. No cluster(s) identified in Canada.	Detection of an imported case in Canada that is infected with the pandemic virus.
6.2	Localized or widespread pandemic activity observed in the Canadian population.	Large numbers of clinical cases being rapidly identified in Canada with no history of travel to an affected area.

Manitoba Nutrition Supply Chain Vulnerabilities

Vulnerabilities have been classified in terms of system type failures, such as a shortage of transportation equipment and more directly human related risks such as migration. The degree of impact varies by vulnerability. For example if all trade ceases, the situation for Manitoba improves, while if there is a failure to plan for business disruptions the situation becomes worse.

System Vulnerabilities to the Manitoba Nutrition Supply Chain

- International Trade Flow Disruption
- Domestic Trade Flow Disruption
- All Trade Ceases
- Critical Ingredients are Unavailable
- Shortage of Drinking Water for Human Consumption
- Shortage of Transportation Equipment
- 35% Agricultural Production Reduction
- 35% Processor Production Reduction
- Wholesaler/Distributor Failure
- Retail Network Failure

Human Related Vulnerabilities to the Manitoba Nutrition Supply Chain

- Feeding Requirements for Infants
- Shortage of Transportation Equipment Operators and Maintenance Employees
- Failure to Have Business Continuity Plans
- Public Resistance to Consumption of a Major Food Source
- Lower than Expected Home Food Safety Stocks
- Unexpected Migration

Unique Circumstances

- Food Banks
- Hospitals, Personal Care Homes, and Meals on Wheels

Plan Actions by Pandemic Level Trigger

System Vulnerabilities

Actions by Pandemic Phase (Trigger)				
Pandemic Phase	**3.0**	**4.0**	**4.1**	**6.2**
Vulnerability				
Response to System Vulnerabilities to the Manitoba Nutrition Supply Chain				
All Trade Ceases	Nutrition Supply improved: No Action			
Critical Ingredients Not Available	- Encourage business continuity planning for processors.		- Encourage stocking of non Manitoba critical ingredients (privately and/or government held) .	- Make available government held inventories at cost if production shortages. - Suspend packaging rules. - Invoke emergency labeling rules.
Shortage of Drinking Water		- Consumer messaging to stockpile.	- Government acquisition of emergency supplies. - Pre-position in warehouse space in Thompson, Brandon and Winnipeg.	- Distribution of government held emergency supplies and immediate replenishment.
Shortage of Transportation Equipment	- Encourage business continuity planning: trucking and air services. - Determine refrigeration needs for medical purposes.		- Pre contract for equipment and operators (include one firm that operates on winter roads). - Pre-position in Thompson, Brandon and Winnipeg.	- Use pre-positioned equipment as necessary to move ingredients/food. - Backstop remote community supplies with government air services. - Consider suspension of weight restrictions.
35% Agricultural Production Reduction		- Encourage farmers to plan with other farmers.	- Government monitoring of inventories (grain, vegetables, livestock and poultry). - Set up processor hotline to report shortages.	- Continue monitoring. - If needed provide government acquired transportation (above) to move raw food to processors. - Initiate avian influenza eradication plan if required.
35% Processor Production Reduction	- Encourage business continuity planning for processors: (Storage, transportation and human resources).		- Request for readiness: processors requested to ready their storage, transportation and human resource plans. - Increase inventories of critical ingredients. - Provide government alternate use of their facilities and barriers to alternate use.	- Require reporting of production, and inventories and shortages daily. - Use production from excess areas to supply deficit areas through wholesalers/distributors and retailers. - Encourage reassignment of production at facilities to meet needs.

System Vulnerabilities (continued)

Actions by Pandemic Phase				
Pandemic Phase	**3.0**	**4.0**	**4.1**	**6.2**
Vulnerability				
Response to System Vulnerabilities to the Manitoba Nutrition Supply Chain (continued)				
Wholesale/ Distributor failure	- Encourage business continuity planning, human resources, transportation and critical ingredient focus.		- Request to maximize inventories of key foods - milk., eggs, bread and related ingredients, meat, canned/frozen fruits and vegetables, and infant foods.	- Require daily reporting of key foods. - Require distribution to retail level in areas of shortages. - If needed provide government acquired transportation to move food.
Retail Failure	- Encourage development of business disruption plans. Focus on smaller local/ regional food retailers.		- Request to maximize inventories of key foods - milk., eggs, bread and related ingredients, meat, canned/frozen fruits and vegetables, and infant foods. - Advise consumers to stockpile 2 weeks of food - Request contributions to food banks be maintained - Acquire meals- ready to eat (MREs) - Establish consumer food shortage hot line.	-If needed provide government acquired transportation to move food. - Assure supply from wholesalers/distributors to independent retailers. - Make MREs available. - Consider rationing.

Human Vulnerabilities

Actions by Pandemic Phase				
Pandemic Phase	**3.0**	**4.0**	**4.1**	**6.2**
Vulnerability				
Response to Human Vulnerabilities to the Manitoba Nutrition Supply Chain				
Feeding requirements for Infants		- Generic messaging related to the pandemic threat. - Specific messaging to stockpile up to six weeks of infant food and rotate the stockpile - Investigate production through Food Development Centre.	- Government acquires emergency safety stock of formula, cereals and strained food. - Pre-position stock in Thompson, Brandon and Winnipeg.	- Distribute government held emergency safety stocks. - Emergency re-stocking. - Encourage local preparation- home recipes, Food Development Centre, other processors etc.
Shortage of Transportation Equipment Operators	- Encourage business continuity planning: trucking and air services.		- Request industry and MPI mobilize qualified drivers. - Pre contract for operators (include one firm that operates on winter roads). - Pre-position operators in Thompson, Brandon and Winnipeg.	- Use pre-positioned equipment/operators as necessary to move ingredients/food. - Require healthy qualified drivers to support food movement. - Suspension of hours of service restrictions. - Ensure government staff and pilots are available to move food.
Failure to Have Business Continuity Plans	- Encourage smaller/medium processors to develop plans through messaging, distribution of planning materials, extension education, and as part of plant inspections		- Government staff to follow up with firms.	- No actions: can not compel firms to plan.
Public Resistance to consumption of a Major Food Source		- Private sector messaging to allay fears.	- Government supportive messaging to back up private sector. - Ramp up avian influenza eradication plan.	- Follow avian influenza eradication plan.
Lower than Expected Home Food Safety Stocks		- Messaging to stock food. Provide advance notice to processors/ wholesalers and retailers. - Inventory up to 6 weeks of non perishables.	- Use approaches and resources described under "Shortage of Drinking water for Human Consumption", "Retail Network Failure" and "Feeding Requirements for Infants"	- Use approaches and resources described under "Shortage of Drinking water for Human Consumption", "Retail Network Failure" and Feeding Requirements for Infants"
Unexpected migration		- Messaging to Manitobans about the need to maintain current residency.	No new actions.	No new actions.

Unique Circumstances

Actions by Pandemic Phase				
Pandemic Phase	**3.0**	**4.0**	**4.1**	**6.2**
Vulnerability				
Unique Circumstances				
Food Banks	Food bank planning for disruption. Focus on human resources to meet needs.		- Acquisition of food for 120,000 hampers. - Government assist in acquiring these emergency safety stocks. - Pre-positioning in Thompson, Brandon and Winnipeg.	- Make available food for hampers. - Make government hired transportation equipment available.
Hospital, Personal Care Homes, Meals on Wheels	No direct action. Part of Health planning. It is likely capacity will be totally utilized.	No direct action. Part of Health planning. It is likely capacity will be totally utilized.	No direct action. Part of Health planning. It is likely capacity will be totally utilized.	No direct action. Part of Health planning. It is likely capacity will be totally utilized.

Emergency Safety Stocks

Strategic Commodity	*Northern*	*Western*	*Capital*
Water	30,000 litres	60,000 litres	330,000 litres
MREs	30,000 MREs	75,000 MREs	415,000 MREs
Infant food : canned formula	1,000 (680 gr.)	1,500(680 gr.)	7,500 (680 gr.)
Infant food: cereal	2,500 (227 gr. box)	3,000 (227 gr. box)	18,000 (227 gr. Box)
Infant food: strained	40,000 (128 ml jar)	45,000 (128 ml jar)	265,000 (128 ml jar)
Vitamin A	-	80 litres	500 litres
Vitamin D	-	10 litres	40 litres
Yeast	1,000 (kg)	3,000 (kg)	17,000 (kg)
Sugar	2,000 (kg)	4,000 (kg)	24,000 (kg)
Salt	1,500 (kg)	4,000 (kg)	21,000 (kg)
Food Stuffs for Hampers	8,000 hampers	17,000 hampers	95,000 hampers

MB Nutrition Pandemic Plan - Food Hamper Requirements

	Item	**Item Weight/Volume**	**Notes**	Northern	Western	Capital
Hampers				8,000	11,000	61,000
	Can Fruit/Veg	540 ml		24,000 cans	33,000 cans	183,000 cans
Kit	Protein	213 g	Dried beans and peas	1,700 kg	2,300 kg	13,000 kg
	Pasta	500 g		4,000 kg	6,300 kg	30,500 kg
	Soup	1000 ml	2 cans condesned soup	16,000 cans	22,000 cans	122,000 cans
	Potatoes	2.27 kg		18,000 kg	29,000 kg	139,000 kg
Standard Hamper	Onions	910 g		7,000 kg	10,000 kg	56,000 kg
	Lettuce	336 g	Not included not likely available. Additonal can	-	-	-
	Fruit/Vegetables	1.36 kg	Not included not likely available. Additonal can	-	-	-
	Bread	500 g	Substitute flour .3 kg flour = 1 loaf	2,400 kg	3,300 kg	18,000 kg
	Buns	340 g	use bread	1,600 kg	2,300 kg	12,000 kg
	Pastry	600 g	use bread	2,900 kg	4,000 kg	22,000 kg
	French Fries	1.0 kg		8,000 kg	11,000 kg	61,000 kg
		Extra Food for Preganant Nursing Mothers and Children Under 12		25% of popn.	17% of popn.	17% of popn.
Extra	Milk	1 L	Substitute dried 500 g = 4 litres	250 kg	230 kg	1300 kg
	Can Fruit/Veg	540 ml		6,000 cans	6,000 cans	31,000 cans
Extra Kit	Protein	213 g		500 kg	400 kg	2,000 kg
	Pasta	500 g		1,000 kg	1,100 kg	5,000 kg
	Soup	1000 ml		4,000 cans	4,000 cans	21,000 cans
Total	Can Fruit/Veg			30,000 cans	39,000 cans	92,000 cans
	Dried peas and beans			2,200 kg	2,700 kg	15,000 kg
	Pasta			5,000 kg	7,400 kg	35,500 kg
	Soup			20,000 cans	26,000 cans	143,000 cans
	Potatoes			18,000 kg	29,000 kg	139,000 kg
	Onions			7,000 kg	10,000 kg	56,000 kg
	Flour			6,900 kg	8,600 kg	52,000 kg
	French Fries			8,000 kg	11,000 kg	61,000 kg
	Dried Milk			250 kg	230 kg	1,300 kg
	Yeast	packets	2 packets per 5 loaves = .1 packet per loaf 1 loaf = .5 kg	1,400 packets	1,700 packets	11,000 packets

Logistics Requirements

Warehouse Space Requirements

Warehouse Location	Square Feet Required
Thompson	4,500
Brandon	6,500
Winnipeg	31,000

Daily Transportation Requirements

	53 foot Dry-Van Trailer	53 foot Refrigerated Trailer	Cube Van (Dry)	Cube Van (Refrigerated)
Pandemic Planning Area/Destination				
From Northern	0	2	*0*	2
Within Northern	*1*	*0*	*1*	*1*
From Western	*6*	*16*	*41*	*38*
Within Western	*2*	*3*	*5*	*5*
From Capital	*20*	*22*	*44*	*47*
Within Capital	59	98	*154*	76
Province	**88**	**141**	***245***	**169**