

SARM COVID-19 Town Hall Meeting



December 4, 2020



www.saskatchewan.ca/COVID19

We would like to acknowledge that we are gathering on Treaty 2, 4, 5, 6, 7, 8, and 10 territories and the Homeland of the Métis. Recognizing this history is important to our future and our efforts to close the gap in health outcomes between Indigenous and non-Indigenous peoples. I pay my respects to the traditional caretakers of this land.

WELCOME

Slide 3

Welcome from Jay Meyer



Presentation from SHA Panelists

Question and Answer segment:

1. Ask questions by raising your “hand”
2. Type questions in the Q & A section
3. Text questions to 1-306-520-2433

All lines are muted

Moderator will address questions to panelists

Introduction of Presenters and Panelists

Presenters:

Dr. Susan Shaw – A call to Action

Dr. Julie Kryzanowski – Surveillance and Epidemiological Trends

Dr. Jenny Basran – Health System Modelling Update

Derek Miller – SHA Pandemic Response

Panelists:

Dr. Keven Wasco

Karen Earnshaw

Felecia Watson

Dr. Susan Shaw

A Call to Action

A call to action

Slide 7



Dr. Julie Kryzanowski

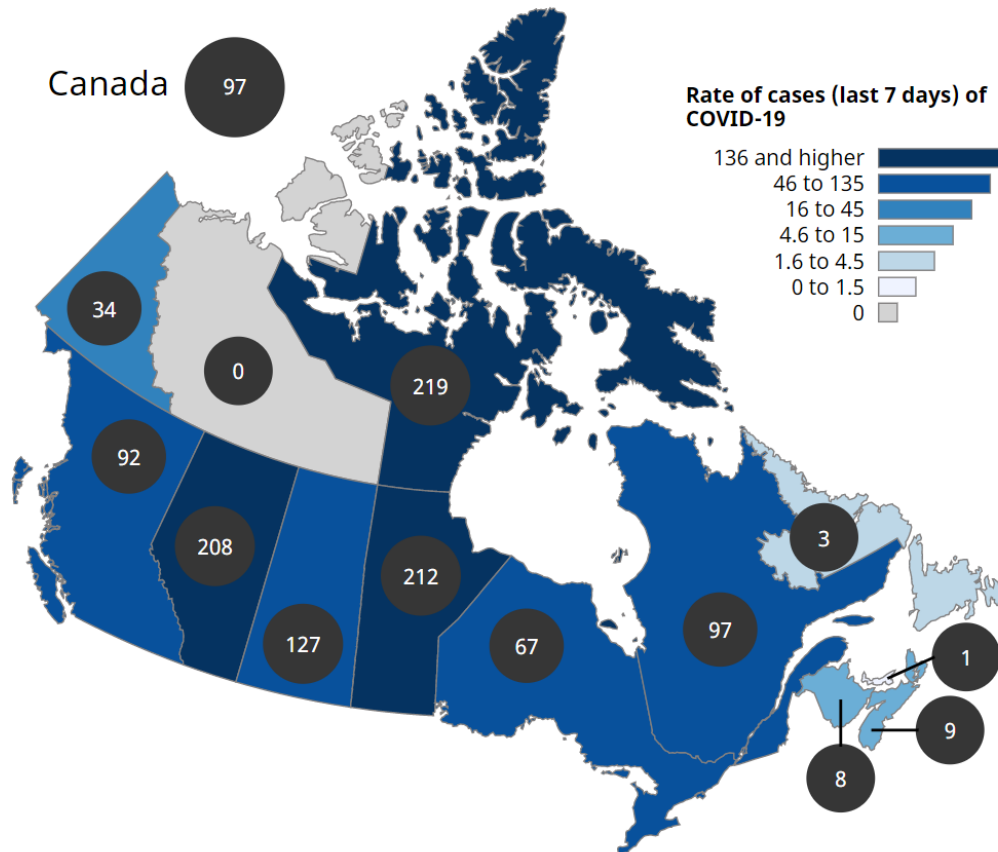
Surveillance and Epidemiological Trends

COVID-19 cases, rate per 100,000, latest 7-days, by province, Nov 25, 2020

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Directly to our southern border, North Dakota, has the highest COVID-19 related death rate in the world.

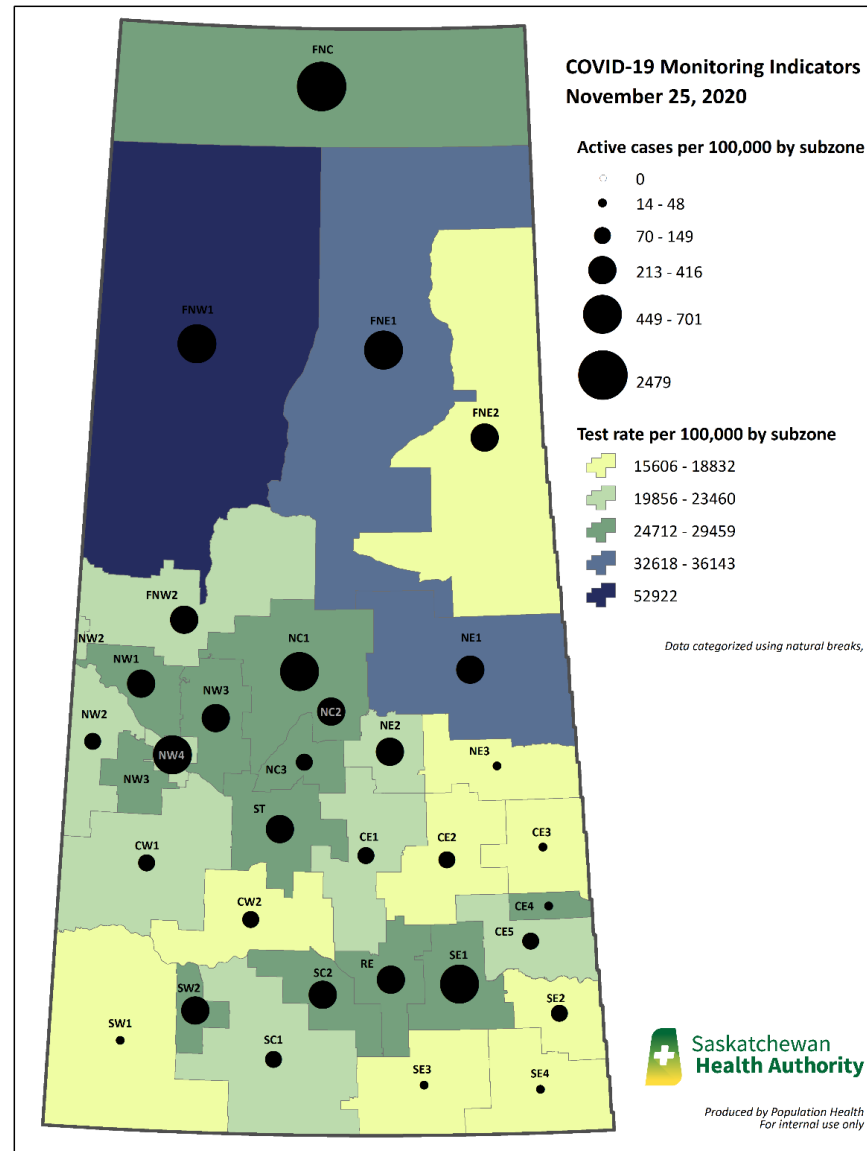
Source:
<https://coronavirus.jhu.edu/map.html>



SK continues to have the **fourth highest case rate** in the country

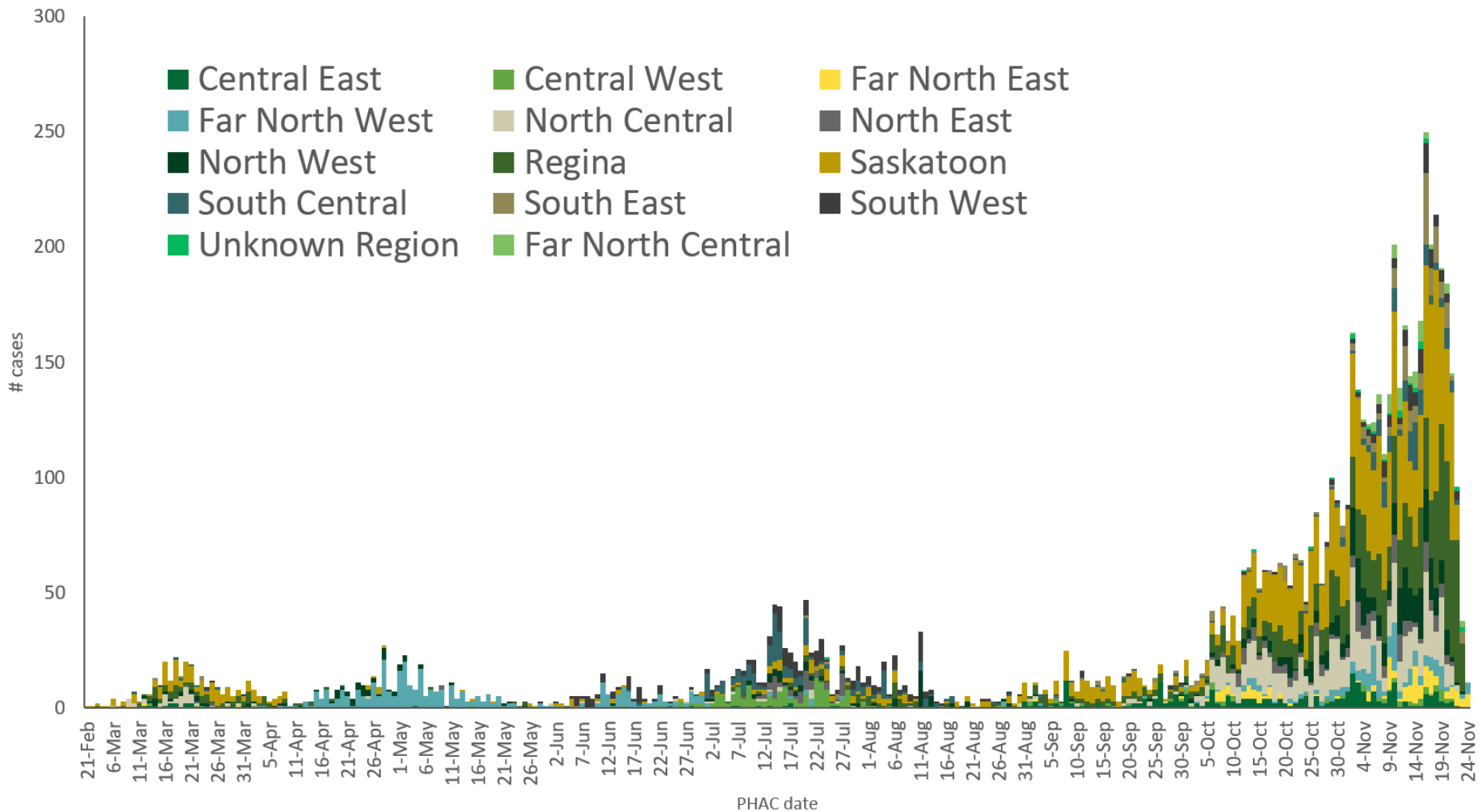
Source: Public Health Agency of Canada <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>

Active cases and test rates per 100,000, by subzone, Nov 25



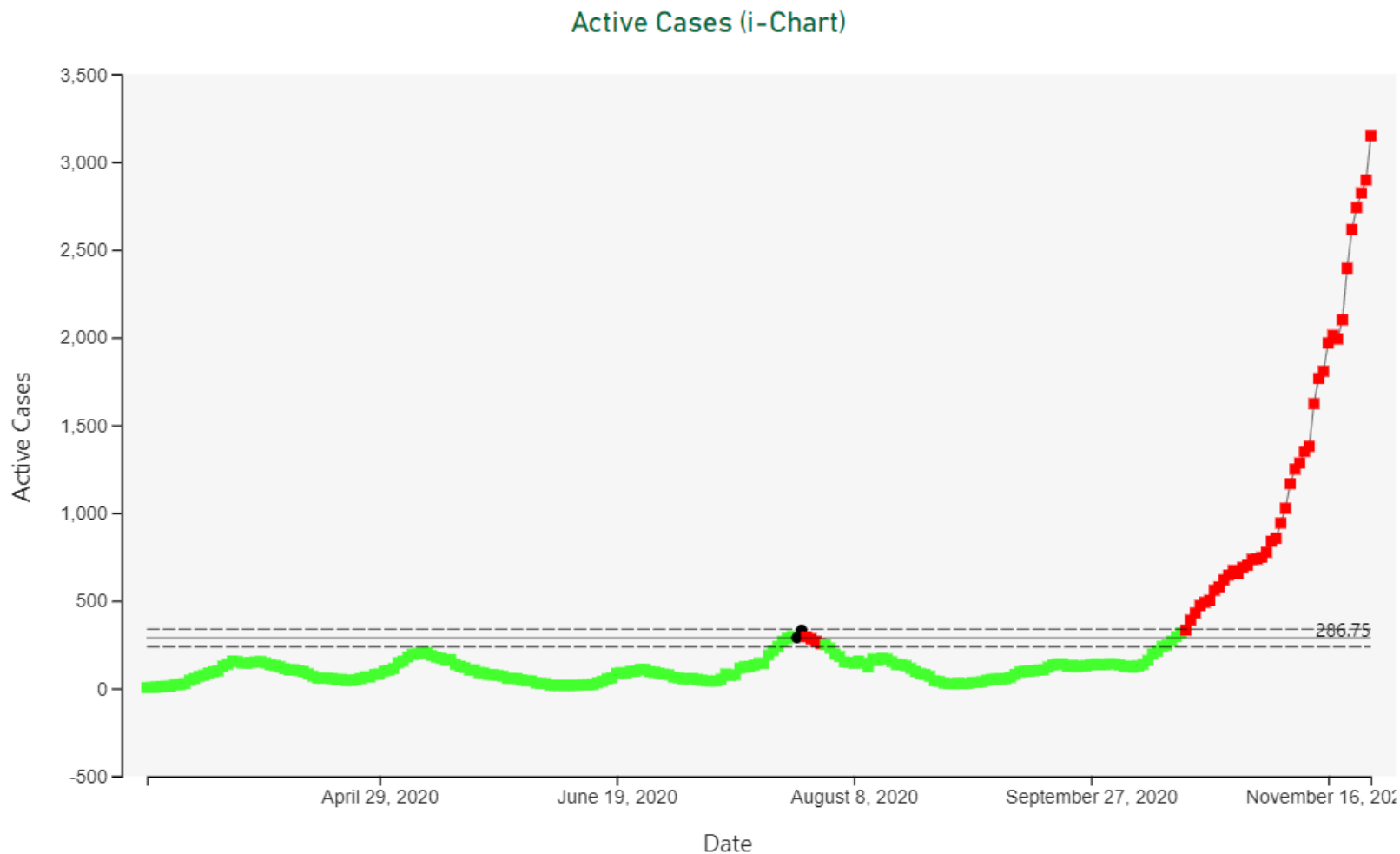
Epidemic curve, SK-COVID-19 pandemic by zone, Feb 1 - Nov 25, 2020 (n=7,047)

Slide 11



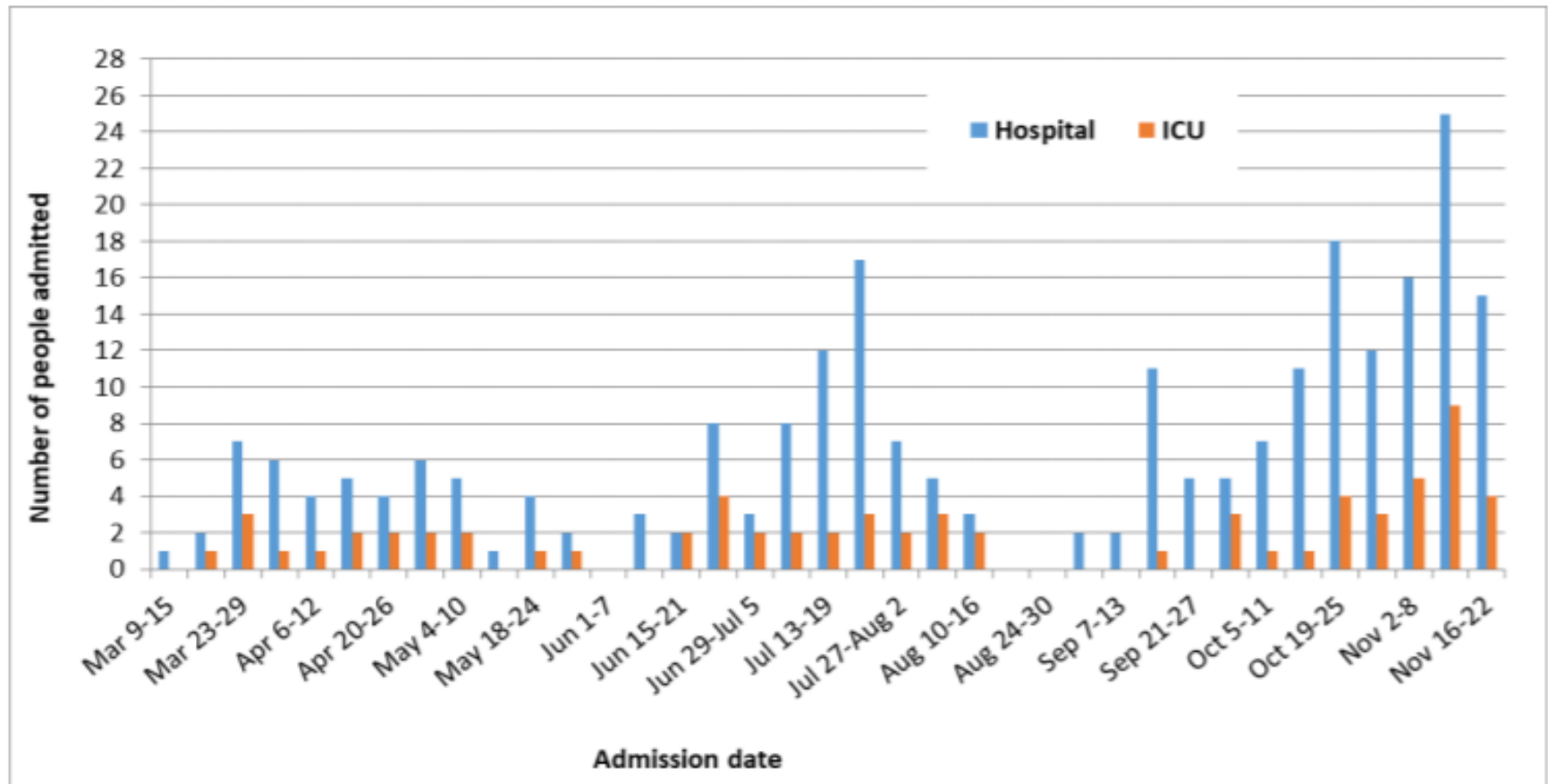
Active cases, SK-COVID-19 pandemic, Feb 1 – Nov 26, 2020

Slide 12



COVID-19 cases admitted to hospital and ICU by week of admission, Mar 9 – Nov 22

Slide 13



Source: Saskatchewan Ministry of Health, Weekly Integrated Epi Report

Hospitalizations occur ~12 days following case increase

- A total of 37 Saskatchewan residents have died from COVID-19 since the start of the pandemic
- Nearly **one-third of total deaths** (n = 11; 29%) have occurred in the **last three weeks** (November 1 to 25)
- Mean age of individuals who died is 72 years

COVID monitoring indicators by zone, 7-day average (Nov 19-25)

The number of new
cases per day averaged
over the last 7-days =
243 cases per day
(174 per day last week)

Data as of Nov 26, 2020

Zone	7 day average (Nov 19-25)					
	Daily new cases	Daily new case rate per 100,000	Daily active cases	Daily active case rate per 100,000	Daily test positivity (%)	Daily testing rate per 100,000
Far North West	8.0	26.8	109.0	365.0	9.6	295.6
Far North Central	4.1	155.6	66.3	2490.1	20.9	563.5
Far North East	8.6	35.4	108.4	448.1	6.4	564.5
North West	18.6	22.1	234.1	278.3	7.1	217.7
North Central	22.6	25.1	311.6	346.9	7.7	298.5
North East	5.3	12.5	94.1	222.8	4.9	229.2
Saskatoon	76.9	23.0	813.0	242.9	8.8	252.2
Central West	5.1	13.6	43.9	116.3	6.8	181.1
Central East	5.3	5.3	71.1	71.2	3.1	170.7
Regina	53.1	19.4	546.7	200.1	6.7	277.9
South West	11.0	27.8	73.9	186.8	12.9	224.0
South Central	10.0	16.2	112.3	181.6	5.4	303.6
South East	11.7	12.9	151.0	165.8	5.9	225.7
SK	243.0	20.1	2,758.3	227.7	7.2	272.5

26 active cases have pending residence locations

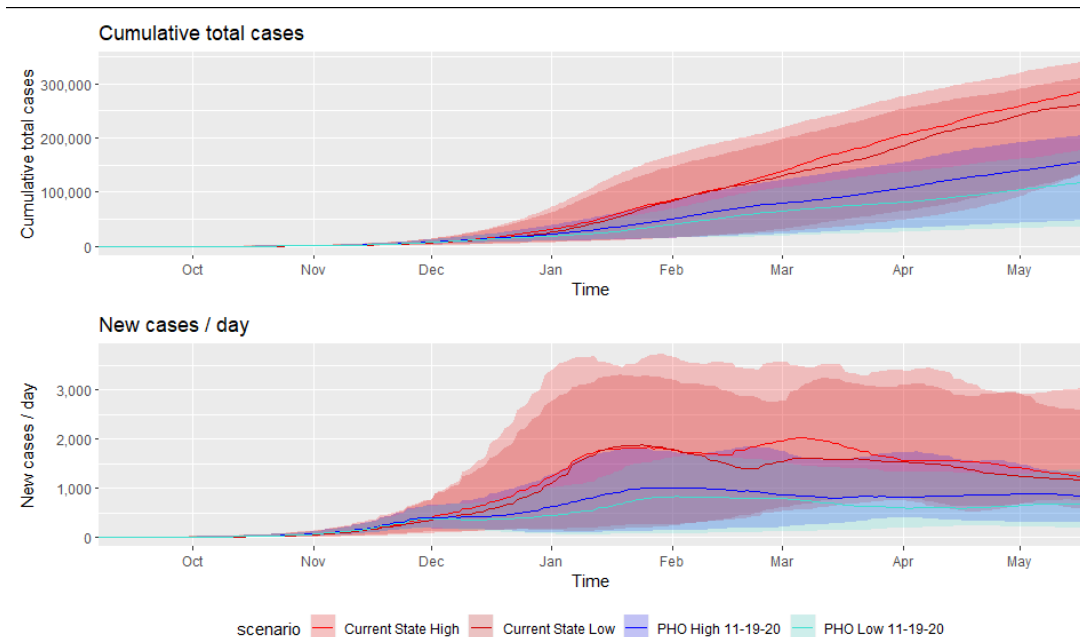
Dr. Jenny Basran

COVID 19 Modelling

In partnership with Dr Nathaniel Osgood and the Computational Epidemiology and Public Health Informatics Lab (CEPHIL) at the University of Saskatchewan

- Impact of Nov 19 Public Health Order on Rate of New Cases/Day

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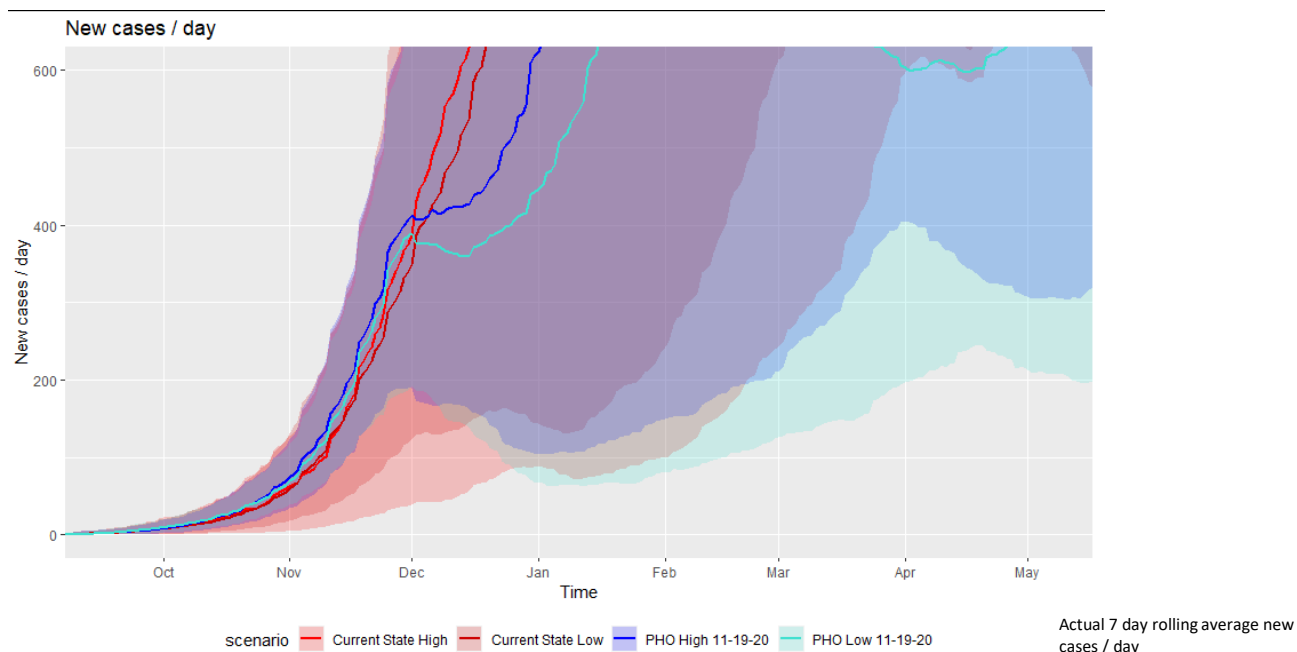


Modeling suggests that the Nov 19 Public Health Order scenario (blue) resulted in 40-50% fewer new cases per day when compared to the prior current state scenario (red)

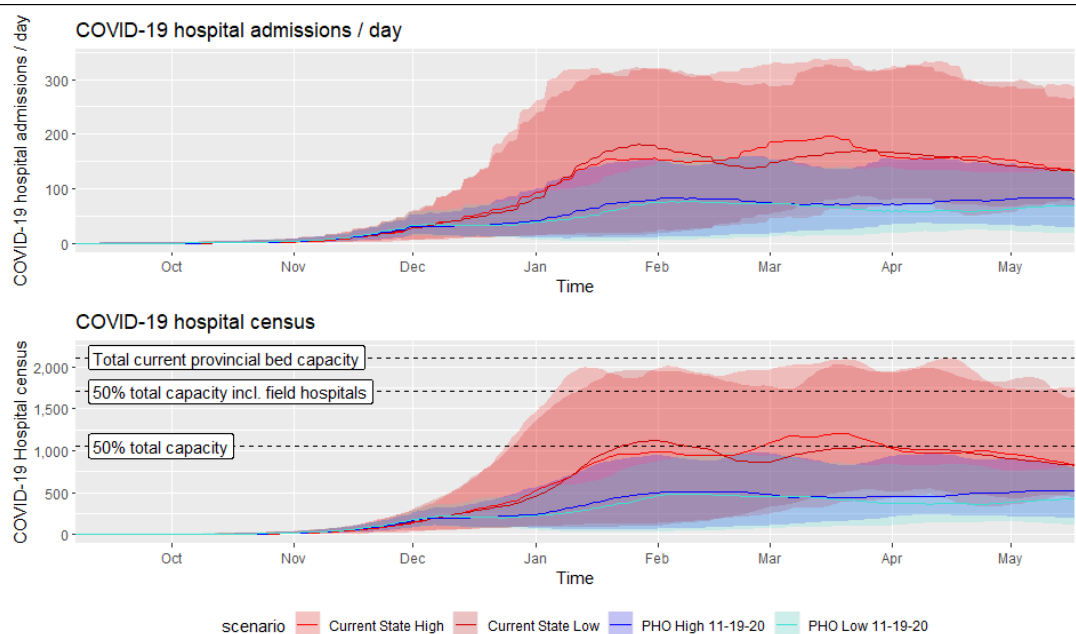
**Peaks in solid line of ABM model study results do not indicate the true peak; highest potential peaks will be indicated by top of blue shaded area.*

Impact of Nov 19 Public Health Order on New Cases / Day

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Impact of Nov 19 Public Health Order on Hospital Census



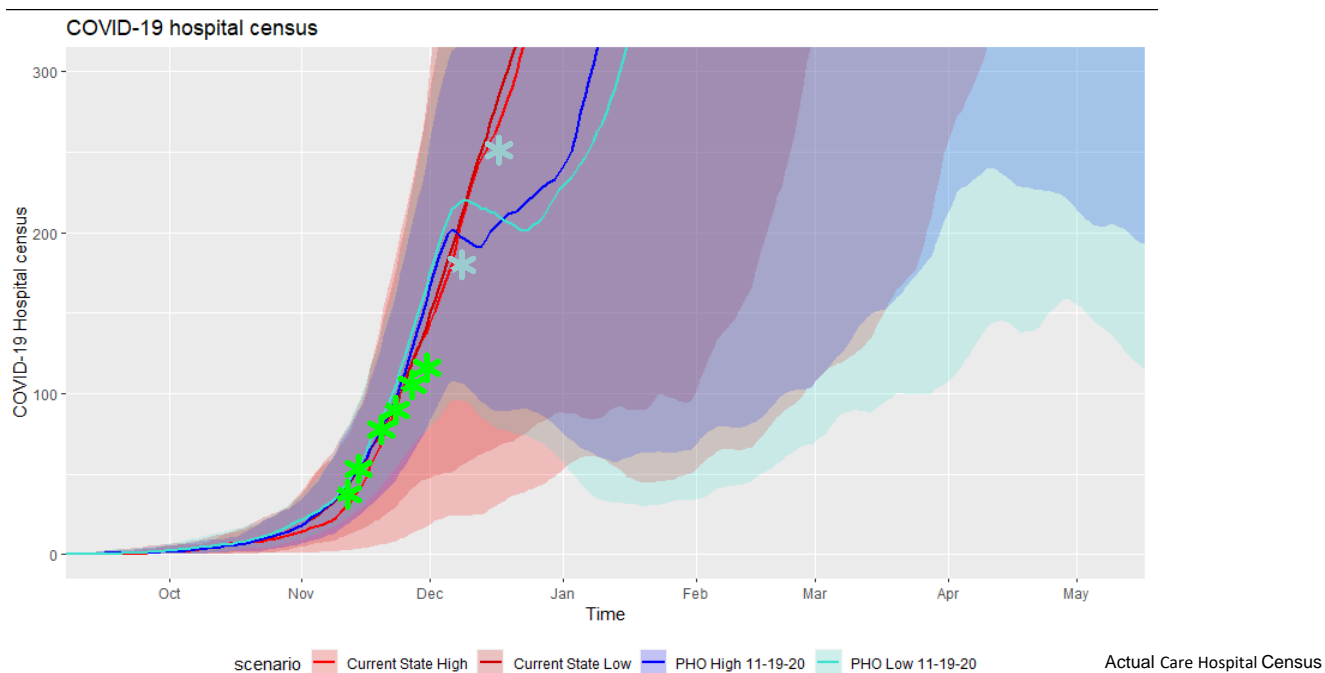
**Peaks in solid line of ABM model study results do not indicate the true peak; highest potential peaks will be indicated by top of blue shaded area.*

Modeling found that the Nov 19 Public Health Order scenario (blue) resulted in 50% lower hospital census when compared to the prior current state scenario (red).

COVID-19 patients could still require half of all available acute care beds for extended periods.

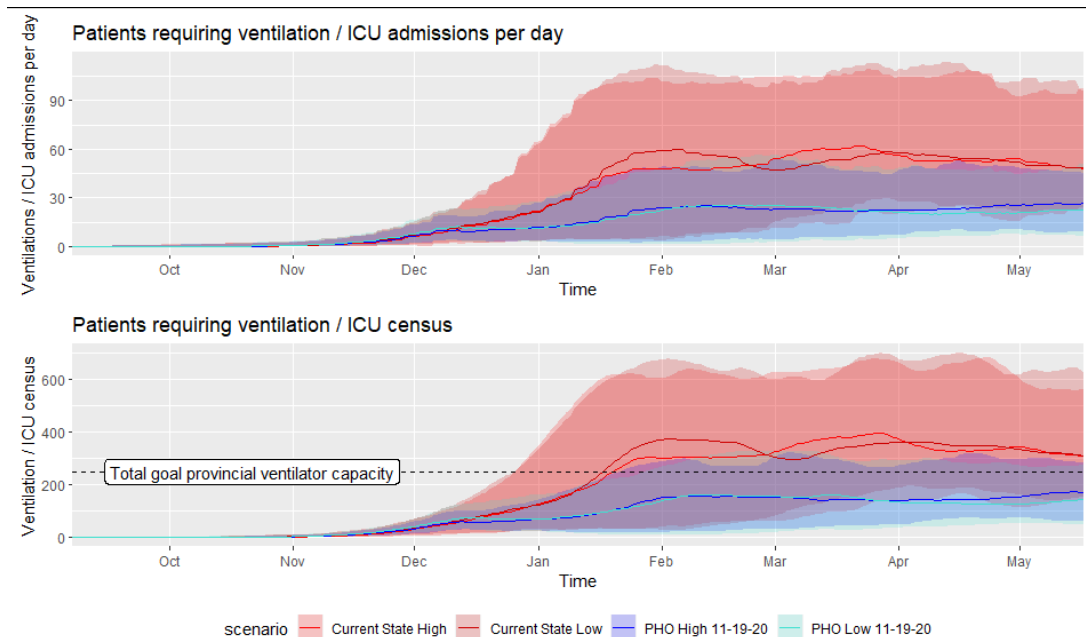
Impact of Nov 19 Public Health Order on Acute Care Hospital Census (not including ICU)

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Model assumes all severely and critically ill patients are admitted hospital. It does NOT account for advanced care directives at this time.

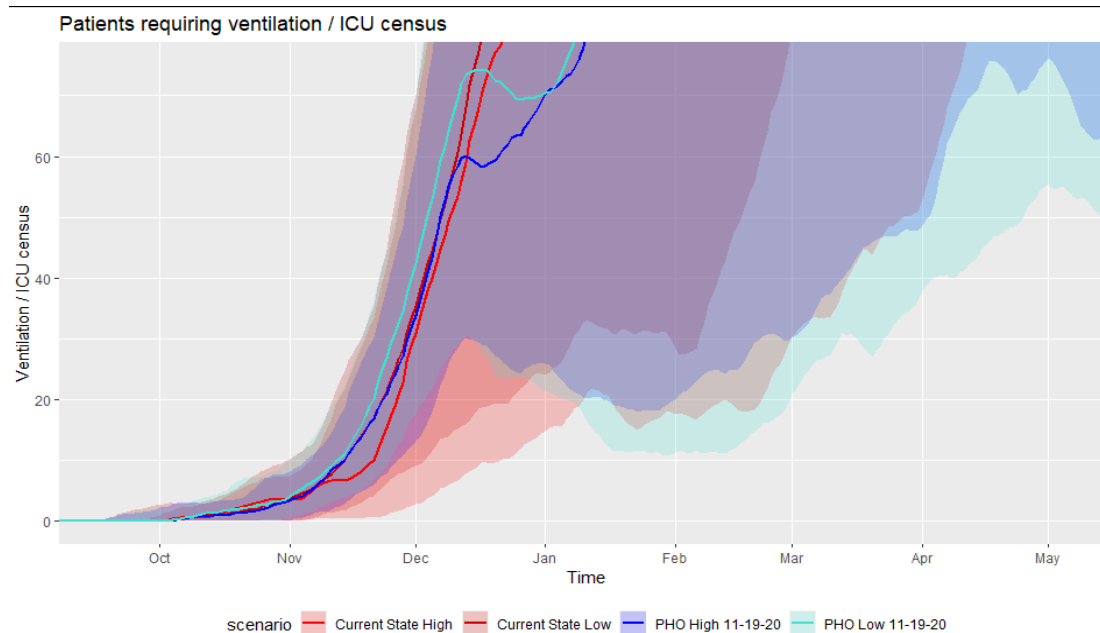
Impact of Nov 19 Public Health Order on ICU Census



Modeling found that the Nov 19 Public Health Order scenario (blue) resulted in 50% lower ICU census when compared to the prior current state scenario (red)

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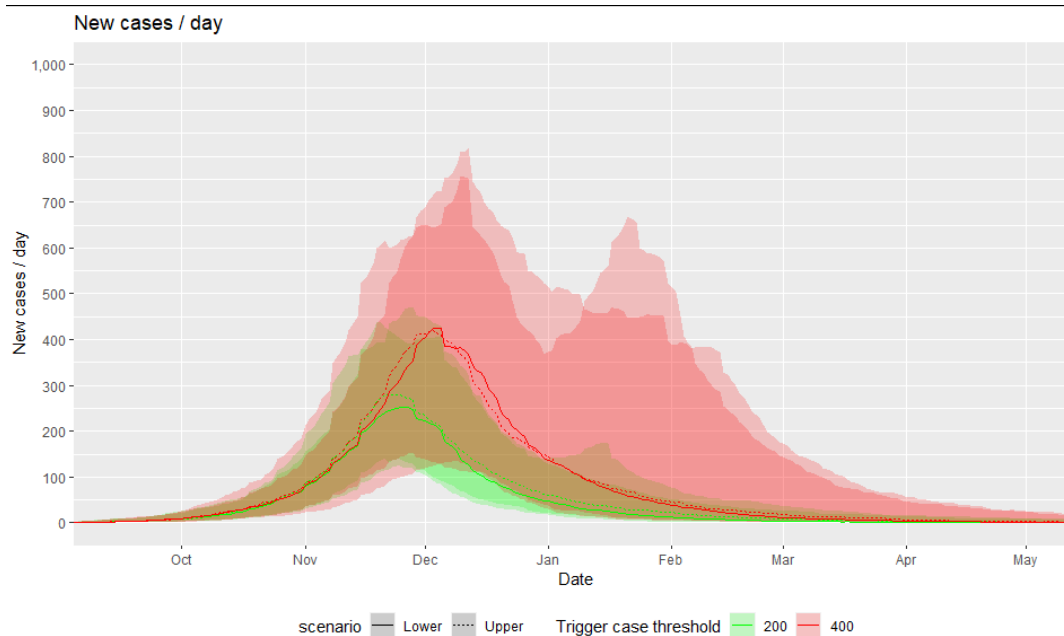
Impact of Nov 19 Public Health Order on ICU Census



ABM Model assumes all critically ill patients are admitted to hospital and ICU if needed. It does NOT account for advanced care directives at this time.

Impact To Daily New Cases - Further Tightening to Optimistic Scenario at 200 vs 400 new cases per day

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* Assumes high adherence to optimistic scenario PHO, and that the PHO is maintained throughout.

Trigger at 200 cases

- Peak ~ 300-450 new cases per day
- Takes ~ 2 months before < 60 new cases per day

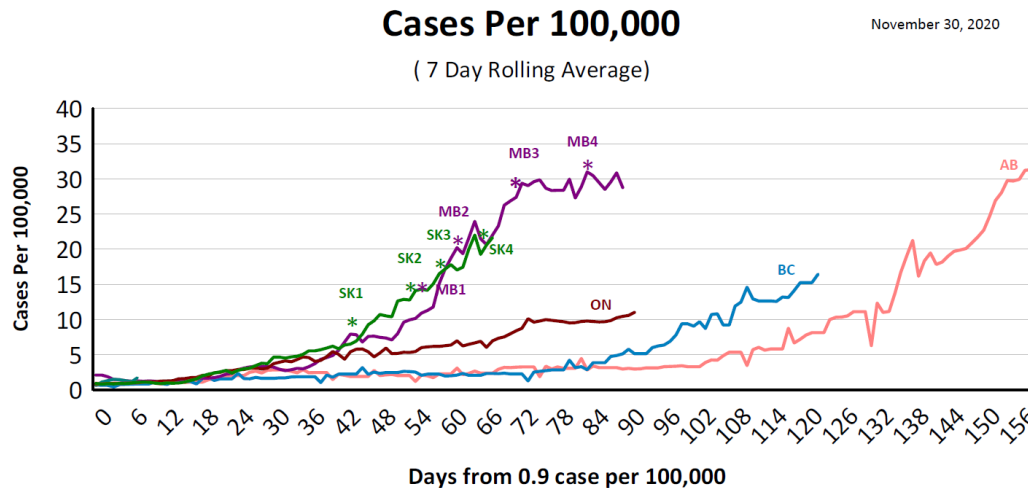
Trigger at 400 cases

- Peak ~ 450-750 new cases per day
- Takes ~ 4 months to get below 60 cases/d

The higher the daily case numbers before into optimistic tightening phase, the longer it takes to bring the surge back down

Growth and recovery will be longer if less uptake by population or public health orders relaxed

Impact of Public Health Orders Depends on Timing and Strength



Saskatchewan

SK1 - Nov 6th – masks mandatory in PA, Saskatoon and Regina; private gathering limit -10
SK2 - Nov 16th – masks mandatory if population>5000 pop; Gr 9-12 larger schools -phase 3
SK3 - Nov 19th – province wide mask mandatory, gathering size limit of 5, outdoor gathering limit 30, no alcohol sales after 10 pm
SK4 - Nov 27th – limit of 4 per table in restaurants/ licenced establishments, capacity restriction to 30 for casinos, bingo halls, arena, theatres, and places of worship; indoor public gathering limit 30; all team sports suspended; fitness classes less than 8, expanded masks in gyms and workplaces, large retail locations limit capacity to 50%

Nov 30 - 123 COVID-19 patients in hospital, 23 in ICU, rolling average of 266 new cases/day

Manitoba

MB1- Oct 26th - Restricted level - Winnipeg and Northern health region – gatherings limit of 5, 50% capacity for restaurant / bars, blended learning Gr 9-12, personal services 50%, sports spectators - 25% capacity,
MB2 – Nov 1st - Critical level - Winnipeg - only household contacts, no social gatherings, non-critical retail closed, critical retail at 25% capacity; all other regions at restricted level *(the 7 day rolling average was ~255 cases/day, 120 in hospital and 18 in ICU)*
MB3 – Nov 12th – Critical level – extended to entire province
MB4 – Nov 20th – further restrict gatherings at private residences, critical retailers to only sell essential items

Nov 30 – 342 COVID-19 patients in hospital, 43 in ICU, rolling average of 364 new cases/d

Derek Miller

Health System Readiness Update

SHA services will adapt and expand to meet the projected COVID-19 patient demand, while continuing to deliver essential services to non-COVID-19 patients throughout the duration of the event.



- Introduction
- Current State & Forecasted Growth
- Offensive Strategy
- Defensive Strategy
- Key Challenges
- Redeployment Plan & Service Slow Downs
- Questions

Current State & Forecasted Growth

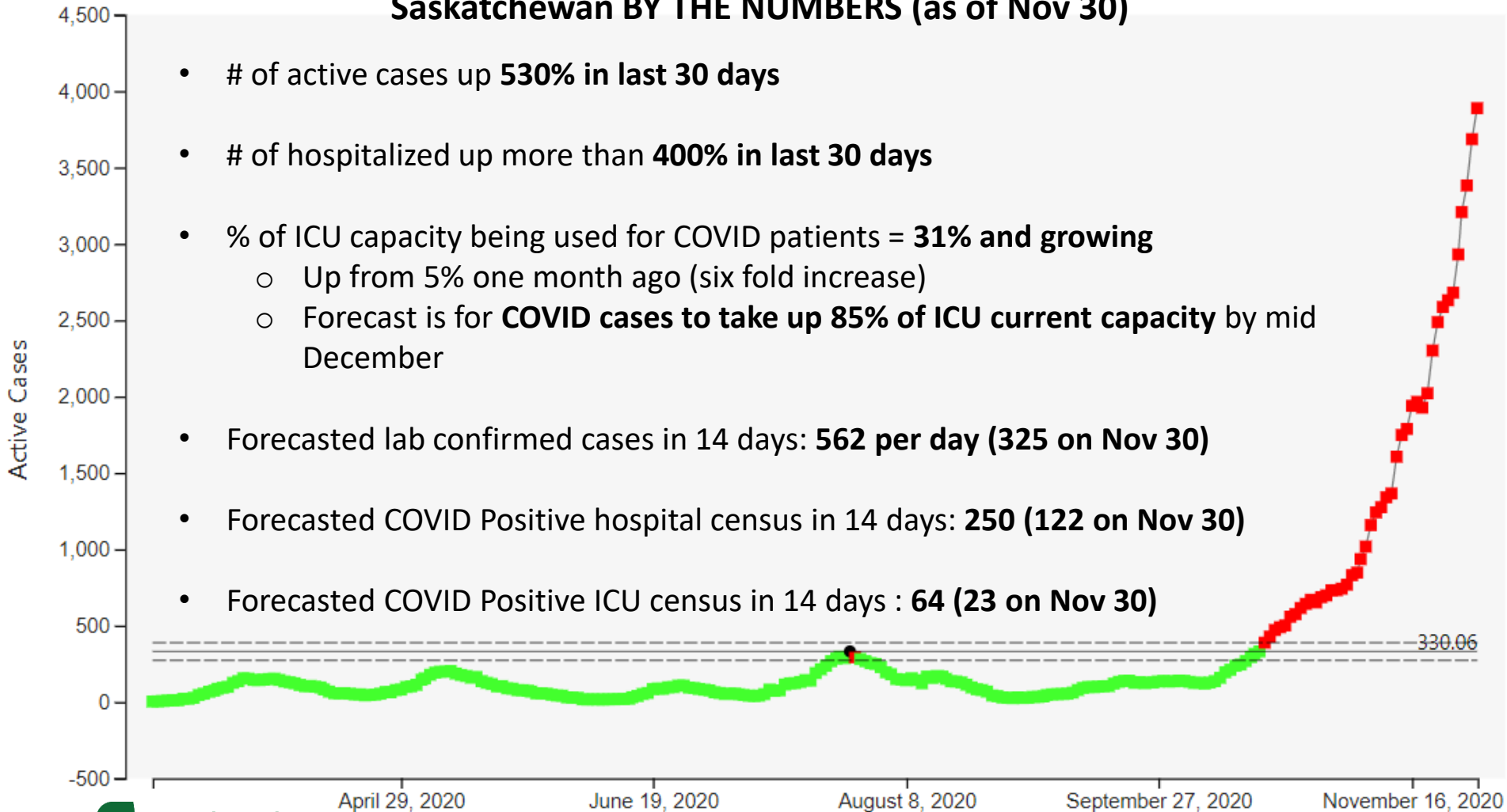
COVID-19 Health System
Readiness Update



Recent & Forecasted Case Growth

Saskatchewan BY THE NUMBERS (as of Nov 30)

- # of active cases up **530%** in last 30 days
- # of hospitalized up more than **400%** in last 30 days
- % of ICU capacity being used for COVID patients = **31% and growing**
 - Up from 5% one month ago (six fold increase)
 - Forecast is for **COVID cases to take up 85% of ICU current capacity** by mid December
- Forecasted lab confirmed cases in 14 days: **562 per day (325 on Nov 30)**
- Forecasted COVID Positive hospital census in 14 days: **250 (122 on Nov 30)**
- Forecasted COVID Positive ICU census in 14 days : **64 (23 on Nov 30)**



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Offensive Strategy

COVID-19 Health System
Readiness Update



Overall Offensive Strategy

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Key goal: contain, delay and mitigate the virus and promote population health

Key planks of the strategy:

- Testing
- Contact tracing
- Protecting vulnerable populations

TESTING STRATEGY

Key Strategies:

Ramp up to sustainably provide more than 4,000 tests/day by late December through:

✓ **Diversifying testing and lab processing options:**

- SHA delivered high volume testing in Regina and Saskatoon
- GeneXpert rapid testing in 19 locations around Saskatchewan
- Point of Care rapid testing
- 3rd Party testing

✓ **Enhancing staffing resources in Lab**

- 76 positions in various stages of recruitment/training

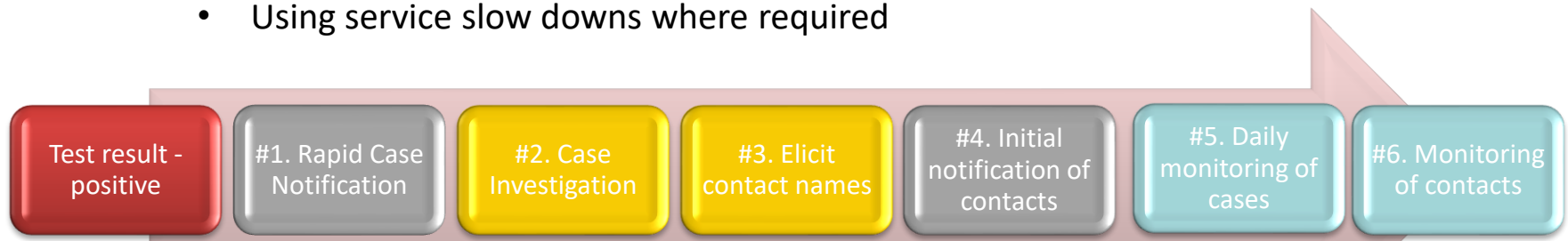
✓ **Ensure wide availability of testing** through different delivery methods

- 50+ testing sites around Saskatchewan, plus mobile testing teams



Key Strategies:

- ✓ **Use of SHA Contact Tracing Application to improve processes, reporting & monitoring**
- ✓ **Offloading negative test result callbacks from busy Public Health teams, including:**
 - Deploying 80+ Nursing students from USASK
 - Incorporating support from Gov't of Sask through the Public Service Commission (PSC)
- ✓ **Load leveling Public Health & ensuring skill/task alignment across the province**
 - Sufficient Public Health Nurses for 450+ cases/day if doing right jobs (Steps 2 & 3 below)
- ✓ **Adding staff capacity** (delayed impact due to training/onboarding)
 - Redeploy licensed/certified staff for rapid case notification & contact tracing (Steps 1 & 4 below) through service slow downs.
 - Add resources through supplementary workforce for daily monitoring of cases/contacts (Steps 5 & 6 below), including by:
 - Adding personnel from Gov't through the PSC
 - Incorporating 35 Federal Statistics Canada staff
 - Using service slow downs where required



* Does not always occur in linear order above

Offense – Two Week Surge Targets

- **Contact Tracing Surge Target:** Meet demand for approximately 562 average cases/day within two weeks (6,000+ hours work/day)
- **Requirement:** 500 licensed health care workers, unlicensed workers and data entry staff
- **Needs across the spectrum of contact tracing:**
 - Green = Public Health Nurses, sufficient resources to meet target
 - Yellow = Unlicensed workers, target to be met primarily through supplementary workforce
 - Red = licensed/certified staff required, meeting target requires service slow downs to support redeployment to address gaps



* Does not always occur in linear order above

Reality (#'s as of Dec 3):

- 146 cases in long term care when one is too many
- Dozens of outbreaks in facilities serving seniors or CBOs serving vulnerable clients when one outbreak among these populations is too many
- Community acquired COVID getting into health care facilities and resulting in large numbers of staff isolating, eroding our ability to serve vulnerable patients

Key Strategies:

- ✓ Visitor restrictions, robust entryway screening processes & staff cohorting
- ✓ Minimize health care worker exposure and promote best PPE practices
- ✓ Continuous improvement of outbreak protocols & education
- ✓ Use of assisted self isolation, secure isolation & hotels
- ✓ Expanding point of care testing options
- ✓ Making mobile testing teams available where needed (e.g. Lighthouse)

Key Message:

- To save lives among those who are most vulnerable, the public needs to help stop the spread

Surge Target

Create a pool of approximately 55-60 health care workers in six areas of the province able to be redeployed to address outbreaks and prevent critical service disruptions when large numbers of staff are required to isolate.

	Registered Nurse	Licensed Practical Nurse	Continuing Care Aide	Enviro. Service Worker	Rec Worker
Acute	15	10			
LTC	5-10	5	15	5-10	2
Total	20-25	15	15	5-10	2

Defensive Strategy

COVID-19 Health System
Readiness Update



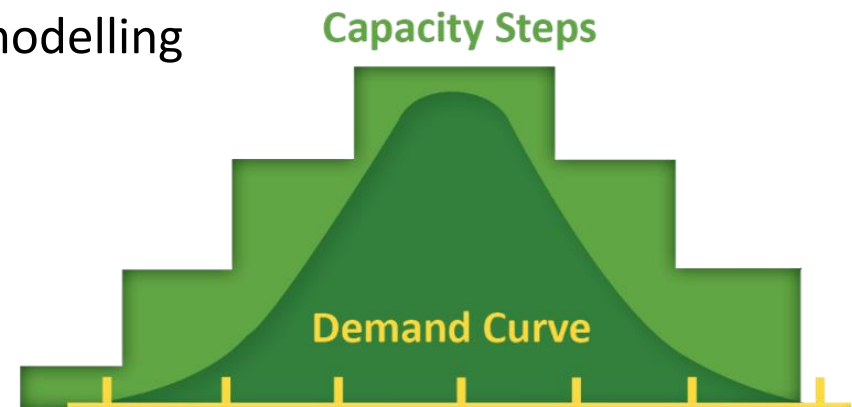
Defensive Strategy

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Key Goal: adapt/expand to meet projected COVID demand while maintaining essential services for non-COVID patients

Key Strategies:

- Surge acute capacity through use of surge spaces and field hospitals
- Employ combination of mixed, COVID and non-COVID hospitals where warranted by case increases
- Convert hospitals to ALC where required
- Field hospitals for contingency scenario only
- Maintain significant ventilator capacity
- Maintain 6 months + supply of key PPE
- Adjust/adapt strategy based on modelling



Current State:

- Unlike spring, system operating at capacity, leaving limited ability to reallocate internally to support surge
- Current average daily ICU demand province-wide: **nearly 100%**
- Ongoing capacity challenges in Saskatoon (#'s below are as of Dec 3)
 - ICU capacity at **110% at St. Paul's and 92% at RUH** with 1 available bed in S'toon

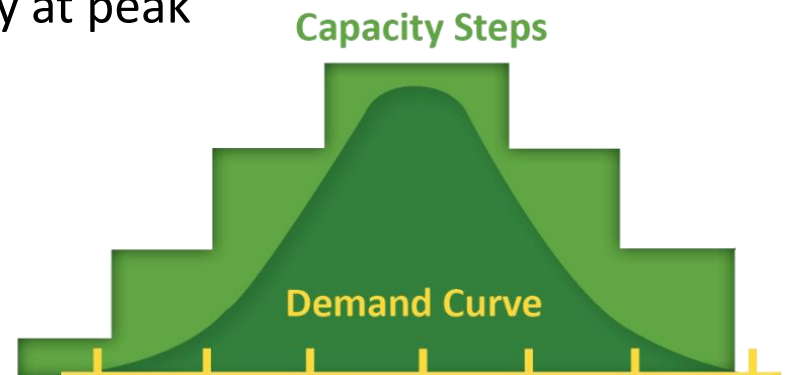
Surge needed to accommodate forecasted peak:

- 1,324 COVID acute care patients (**61% of current state acute care capacity**, would be managed through both acute beds and field hospital locations)
- 412 ICU patients (**449% of current state ICU capacity**)
- 403 vented (**631 vents available**, though staffing surge would be required)

Defense – Two Week Surge Targets

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- **ICU Surge Target:** 64 COVID patients requiring ICU within two weeks
 - Equivalent to 28 percent more ICU bed capacity than currently exists right now in Saskatoon and Regina combined.
- **Acute Care Surge Target:** 250 COVID patients requiring hospitalization within two weeks
 - Equivalent to the capacity of the Cypress Regional Hospital in Swift Current and the Prince Albert Victoria Hospital combined.
- **Where does this step in the surge plan take us?**
 - 15.5% of planned COVID ICU capacity at peak
 - 19% of planned COVID acute capacity at peak



FIELD HOSPITALS

Prepare field hospitals with two stages of activation:

- Stage one: Required base infrastructure preparation complete and equipment available for activation within a predetermined amount of time
- Stage two: Capacity available for expansion of services as needed
- Key barrier: scaling up to staff field hospitals will require redeployment of staff, resulting in service slow downs
- Last resort option: health system is overwhelmed and all other steps in surge response have been activated

	Stage 1 Beds	Stage 2 Additional Beds	Total beds
Saskatoon (Merlis Belsher)	125	125	250
Regina (Evraz Place)	184	216	400
Total	309	341	650

Key Challenges: Offensive & Defensive Strategies

COVID-19 Health System
Readiness Update



Key Challenges

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- **Strain and stress on front line health care workers**
- **Exponential growth in virus may outpace ability to scale up**
- **Capacity and availability of human resources**
 - Limited labour pool re-allocation given service resumption
 - Highly skilled personnel required, but cannot solve problem through labour market
 - High absentee rates from staff required to isolate, miss work
 - High work volume from training/onboarding new staff
- **Balancing COVID response with maintaining non-COVID services**
 - Slow downs are required to save lives & protect our health care system, recognizing there are negative impacts when people can't access everyday health services

It's not just positive cases that can disrupt services!

Staff required to isolate as a result of community transmission is already disrupting services in many places across the province

System Redeployment Plan & Service Slow Downs

COVID-19 Health System
Readiness Update



Service Slowdown Plan – Summary

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- Targeted approach to minimize patient impact and maximize staff for redeployment
- Not a broad reduction across service lines like Spring slowdown

Partial Service Slowdowns	Full Services Maintained	
<ul style="list-style-type: none">• Primary Health Care• Surgery<ul style="list-style-type: none">• Urban electives slowdowns• Endoscopy/Cystoscopy• Women and Children's Programming• Diagnostics• Therapies• Ambulatory Care• Registration• Environmental• Food and Nutrition• Continuing Care – Rehab Services• Home Care Services	<ul style="list-style-type: none">• Mental Health/Addictions• Neurology• Cardiology• Long-Term Care• Pediatric Orthopedics• Cast Clinic• Labour and Delivery• ICU, PICU, NICU• Breast Health Center• Palliative Care• Medicine Services• Pharmacy Services	<ul style="list-style-type: none">• Surgeries<ul style="list-style-type: none">• Urgent, emergent and cancer• Some elective surgeries• Contracted surgical services• COVID Services<ul style="list-style-type: none">• Testing and Assessment Sites• Virtual Care• ASIS• Contact Tracing• 811

Redeployment Resources - Summary

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	RNs	LPNs	CCAs	ESWs	Rec. Worker	Other	Total
North	19	15	1	0	0	89	124
S'toon	55	18	5	10	6	60	154
Regina	34	14	0	0	0	55	103
Rural	67	27	9	2	5	97	207
Total	175	74	15	12	11	301	588 FTEs

- 588 FTEs are only the resources identified for redeployment through service slow down.
- Exponential increase in hospitalizations + ICU admissions + contact tracing needs far exceed this amount.
- Additional resources are being obtained through supplementary workforce (Gov't of Sask staff , Federal Gov't Stats Can staff, etc).

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Longer Term

- Continually assess ***every week*** based on modelling and case trajectory need for slowing down or resuming services.
- SHA to take a ***“dimmer switch”*** approach over the longer term, scaling up and down services as required for robust pandemic response while maintaining non-COVID services as much as possible.
- Changes in service delivery ***may vary by area*** of the province, so local communications will be deployed as required.
- ***Rapid and effective distribution and delivery of COVID vaccine***, prioritizing key populations (vulnerable populations, health care workers). Ministry of Health led planning underway.

Key Messages

- Safety of our patients, residents and health care workers is our #1 priority
- Committed to:
 - ✓ Maintaining non-COVID services as much as possible
 - ✓ Keeping service disruptions as localized, targeted and time-limited as possible
 - ✓ Staging surges & slow downs to meet demand
- Protecting the health care system is in the public's hands, we need your help

QUESTIONS

1. Ask questions by raising your “hand”
2. Type questions in the Q & A
3. Text questions to 1-306-520-2433

Direct follow up questions to: laura.knoblauch@saskhealthauthority.ca



SARM COVID-19 Townhall Meeting



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Healthy People, Healthy Saskatchewan

The Saskatchewan Health Authority works in the spirit of truth and reconciliation, acknowledging Saskatchewan as the traditional territory of First Nations and Métis People.