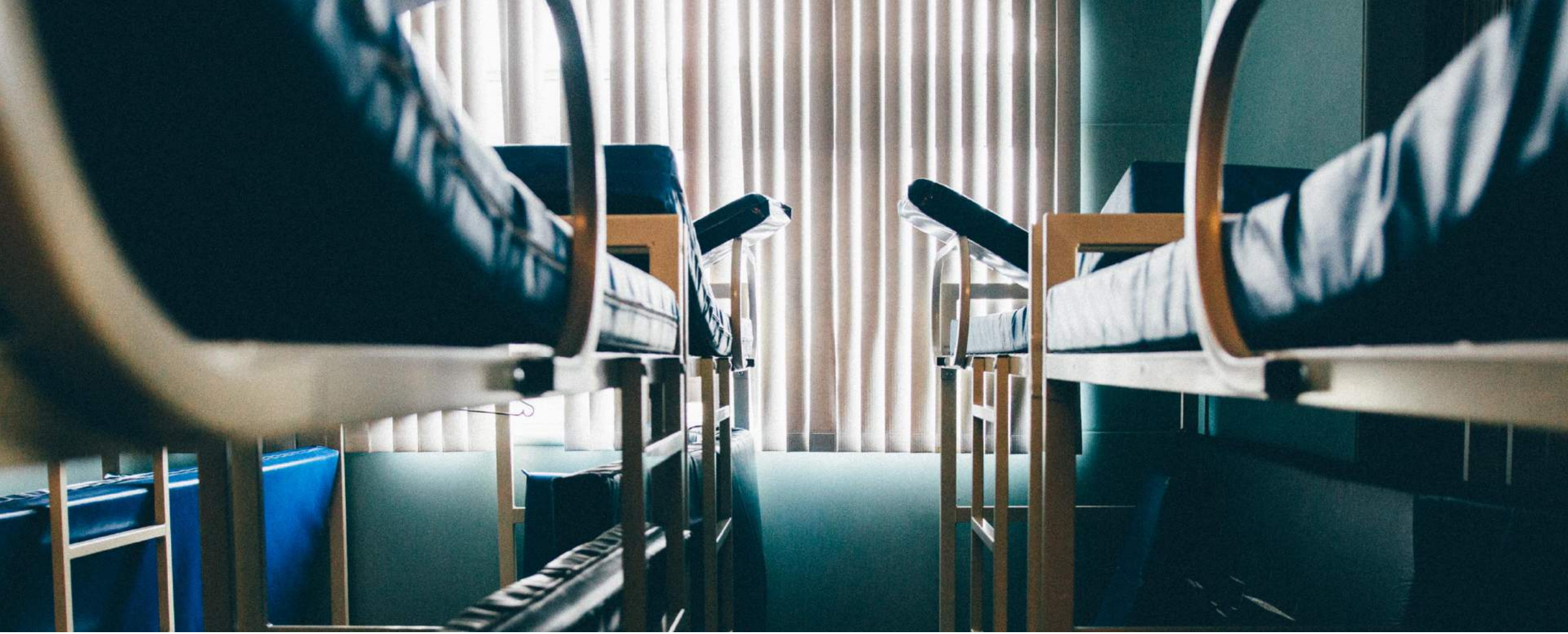

COVID MASS OUTBREAK MANAGEMENT FOR VULNERABLE POPULATIONS

Presented by: Dr. Monty Ghosh, Melody Cordovuz, Dr. Grazia Salvo

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PRESENTER DISCLOSURES

S. Monty Ghosh

Relationships with financial interests:

- Grants (not for profit): Gilead Corporation.
  - Hepatitis C Micro-elimination Grant: Peer navigators used from Provincial Corrections to support transitions to care in the community, Alberta Innovates (PRIHS – IV) Virtual Supervised Consumption. Canadian Institute of Health Research – Marijuana and management of Headaches.
- Value Mental Health: Butrans patch microinduction trial. Populations and maintenance dose of opioid replacement therapy.
- Employee of Alberta Health Services and The Alex Community Health Centre.

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WHY IS OUR POPULATION AT HIGH RISK?

- Increased risk of immunocompromised disease or infectious disease:
  - one study examining rates of HIV in street youth in Ontario found HIV rates as high at 1.9%, and another study of Toronto homeless adults reported an HIV rate of 2%, an AIDS rate of 1.1% and a Hepatitis-C rate of 23%
- Cardiovascular risk factors: A 2005 study from Toronto demonstrated that the prevalence of smoking (a known risk factor for CAD) is 79% higher amongst people experiencing homelessness than the average population.
- Hypertension, high cholesterol, and diabetes were not more prevalent but were more uncontrolled, leading to poor outcomes

HIV prevalence and testing among street-involved youth in Ontario. Rapid Review #81: April 2014 http://www.ohtn.on.ca/Pages/Knowledge-Exchange/Rapid-Responses/Documents/RR81-HIV-Prevalence-Street-Youth.pdf

The Street Health Report 2007. The Health of Toronto's Homeless Population. https://homelesshub.ca/sites/default/files/2.2%20Street%20Health%20Report.pdf

Tony C. Lee, MD, MSc , John G. Hanlon, MSc , Jessica Ben-David, MSc , Gillian L. Booth, MD, MSc , Warren J. Cantor, MD , Philip W. Connelly, PhD , and Stephen W. Hwang, MD, MPH. Adults' Circulation Volume 111, Issue 20, 24 May 2005, Pages 2629-2635

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WHY IS OUR POPULATION AT HIGH RISK?

- Pulmonary Disease: a cross sectional study in San Francisco, found that 24% of respondents had Asthma, 19% had chronic bronchitis, and 4% had confirmed chronic obstructive pulmonary disease (COPD). This is nearly twice the rate of those who are stably housed.
- Age: Almost 17% of Toronto's population experiencing homelessness is above the age of 55, which is categorized as a high risk population for mortality from COVID-19.
- Mental Health and Substance Use:
  - meta-analysis demonstrating the pooled prevalence of various mental health and substance use issues being as high as 77.4%
  - In Calgary 82% indicating they use alcohol regularly

A 2007 Toronto survey reported that 21% of respondents had Asthma and 17% had COPD. Laurie D. Snyder, Mark D. Eisner, Obstructive Lung Disease Among the Urban Homeless, Chest, Volume 125, Issue 5, 2004,Pages 1719-1725, ISSN 0012-3692, https://doi.org/10.1378/chest.125.5.1719. (http://www.sciencedirect.com/science/article/pii/S001236921532167X)

The Street Health Report 2007. The Health of Toronto's Homeless Population. https://homelesshub.ca/sites/default/files/2.2%20Street%20Health%20Report.pdf

Street Needs Assessment: https://www.toronto.ca/wp-content/uploads/2018/11/99be-2018-SNA-Results-Report.pdf

Schreiter S, Bermpohl F, Krausz M, Leucht S, Rossler W, Schouler-Ocak M, et al. The prevalence of mental illness in homeless people in Germany. Dtsch Arztebl Int. 2017;114(40):665-72. Available from: https://www.aerzteblatt.de/int/archive/article?id=193681

Calgary Recovery Services Task Force. (2016). Calgary Recovery Services Task Force: Final Report and Recommendations. Calgary, AB. https://www.homelesshub.ca/sites/default/files/attachments/Calgary_Recovery_Services_Task_Force_Report.pdf

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IMPLICATIONS OF THIS HIGH RISK

- Homeless COVID-19 positive individuals were twice as likely to be hospitalized.
- 3-4 times more likely to require critical care,
- 2-3 times more likely to die than the regular population.

Culhane, D., Treglia, D., Steif, K., Kuhn, R., & Byrne, T. (2020). Estimated Emergency and Observational/Quarantine Capacity Need for the US Homeless Population Related to COVID-19 Exposure by County; Projected Hospitalizations, Intensive Care Units and Mortality. *UCLA: Campuswide Homelessness Initiative*. Retrieved from https://escholarship.org/uc/item/9g0992bm

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ADDITIONAL CONCERNS:

- Hand Hygiene: A recent cross-sectional study (n=194) in Boston found that only 61% of individuals washed their hands five times or more per day, 37% report washed their hands 2-4 times a day, and 2.6% were able to wash their hands once or not at all during the day
- Bathing: 72% reported that they bathe daily, 21% bathe 3-6 times a week, 7.2% said they showered 1-2x per week.
- Laundry: 63% of clients washed their clothes 1-2 times a month, and 5% reported not being able to wash their clothes at all.

Leibler, J.H.; Nguyen, D.D.; León, C.; Gaeta, J.M.; Perez, D. Personal Hygiene Practices among Urban Homeless Persons in Boston, MA. *Int. J. Environ. Res. Public Health* **2017**, *14*, 928.

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WOMEN'S VULNERABILITY TO DOMESTIC VIOLENCE

- Restricted movement, financial constraints, and general insecurity impact power differentials.
- Reduced access to regular social support structures, public services, and spaces increase risk violence.
- Exposure time is the ultimate cause of increased women's violence.

Marques Emanuele Souza, Moraes Claudia Leite de, Hasselmann Maria Helena, Deslandes Suely Ferreira, Reichenheim Michael Eduardo. Violence against women, children, and adolescents during the COVID-19 pandemic: overview, contributing factors, and mitigating measures. Cad. Saúde Pública [Internet]. 2020 [cited 2020 May 08] ; 36(4): e00074420. Available from: http://www.scielo.br.login.ezproxy.library.ualberta.ca/scielo.php?script=sci_arttext&pid=S0102-311X2020000400505&lng=en. Epub Apr 30, 2020. http://dx.doi.org.login.ezproxy.library.ualberta.ca/10.1590/0102-311x00074420.

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KEY PIECES TO OUTBREAK MANAGEMENT

PREVENTION AND PREPAREDNESS

SCREENING

ISOLATION/ QUARANTINE

MASS OUTBREAK MANAGEMENT

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PREPARATION AND PREPAREDNESS

- Improve access to hygiene supports.
- Physical distancing measures and overcrowding in elevators, stairwells, or enclosed spaces.
- Cohorting clients as best possible into groups less than 20. Have them separated by floors or spaces.
- Ensure clients have assigned sleep spaces and keep track of where they do sleep.
- Establish procedures to prevent clients from migrating between sites.

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CONTINGENCY PLANNING

- Extending shelters hours if possible and applicable
- Identifying how the shelter will continue to provide essential services and meet the needs of vulnerable populations
- Knowing where clients will be referred if shelter space is full, or if they need to be transferred to an external isolation site
- Knowing the isolation sites and the transportation methods available for transfer
- Cross-training current employees or hiring temporary employees
- Identifying critical job functions and positions to plan for alternative coverage if a large number of staff have to isolate
- Identifying short-term volunteers to staff the shelter with higher usage or for alternate sites (isolation or decanting sites)

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SUPPLIES AND PERSONAL PROTECTIVE EQUIPMENT

- Considering the need for extra supplies:
- Food
- Toiletries, etc.
- Surge staff and supplies.
- Ensure estimates of PPE are predetermined should an outbreak occur.

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PREVENTION AND PREPAREDNESS

- Overflow sites to accommodate shelter decompression (to reduce crowding) and higher shelter demands
- Quarantine spaces for people who are waiting to be tested, or who know that they were exposed to COVID-19
- Protective housing for people who are at highest risk of severe COVID-19
- Isolation sites for people who are confirmed to be positive for COVID-19

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CLIENT AND VISITOR REGISTRATION AND SURVEILLANCE

- A system registering all clients and visitors entering the facility, including names and phone numbers if available.
- A system to track who is assigned to what section/cohort/bed (where possible) to more easily determine others who might have been exposed in an outbreak situation.
- Check in daily with regular clientele to see if they are experiencing any new symptoms that may have developed since the previous day. Early identification of symptomatic clients will help to limit the spread of COVID-19 within the facility.
- Daily tracking of the number of clients:
  - staying each night o with clinical symptoms o referred for COVID-19 testing or to an isolation site
  - If tracking requires more resources, work with relevant stakeholders as required.
- Keep track of where clients may migrate to, including other facilities.

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DETERMINING THE NEEDS OF THE CLIENT

- Determine some key information of your clients, their needs, baseline supports required, amount of case management, substance and mental health concerns and risk of flight.
- Assessment BLITZ

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DISCOURAGE MOVEMENT BETWEEN SHELTER SITES AND WITHIN THE SHELTER SITE

- limiting the movement of clients such as transfers between shelters
- limiting the number of clients or visitors at drop-ins or other day programs
- canceling or postponing group activities if they are not essential
- providing incentives to reduce mobility; for example, re-organizing services so that three meals are offered at one facility, instead of one meal each at three different agencies
- implementing policies to encourage or require clients to access an assigned shelter and not others

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COHORTING CLIENTS

https://www.healthcatalyst.com/Defining-Patient-Populations

- Grouping (also called cohorting) is a process of keeping clients who do not have symptoms of COVID-19 together.
- The purpose of grouping clients, in this instance, is to be able to isolate clients more effectively if a client starts to show symptoms of COVID-19.
- Grouping clients ensures that if one member of the cohort becomes positive for COVID-19, the entire cohort can be isolated together.
- The smaller the group the easier it will be to identify clients who may have come in contact with a COVID-19 positive client, trace additional contacts the cohort may have had with others including staff, and collectively isolate the group.

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COHORTING FAMILIES

- Families can cohort together.
- Agreements must be made that the family would self isolates themselves and with one another.
- This strategy can also work for shared custody children.
- Avoid sharing of food, snacks, and communal food stuffs.

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FOOD HANDLING DURING AN OUTBREAK

Food handling tips

- Dispense food onto plates for clients
- Minimize client handling of multiple sets of cutlery
- Remove shared food containers from dining areas (e.g., shared pitchers of water, shared coffee cream dispensers, salt & pepper shakers, etc.)
- Dispense snacks directly to clients and use pre-packaged snacks only
- Ensure that food handling staff are in good health and practice good hand hygiene.
- Ensure that all surfaces of the tables and chairs (including the underneath edge of the chair seat) are cleaned and disinfected after each meal
- Staff assigned to housekeeping duties should not be involved in food preparation or food service, if possible

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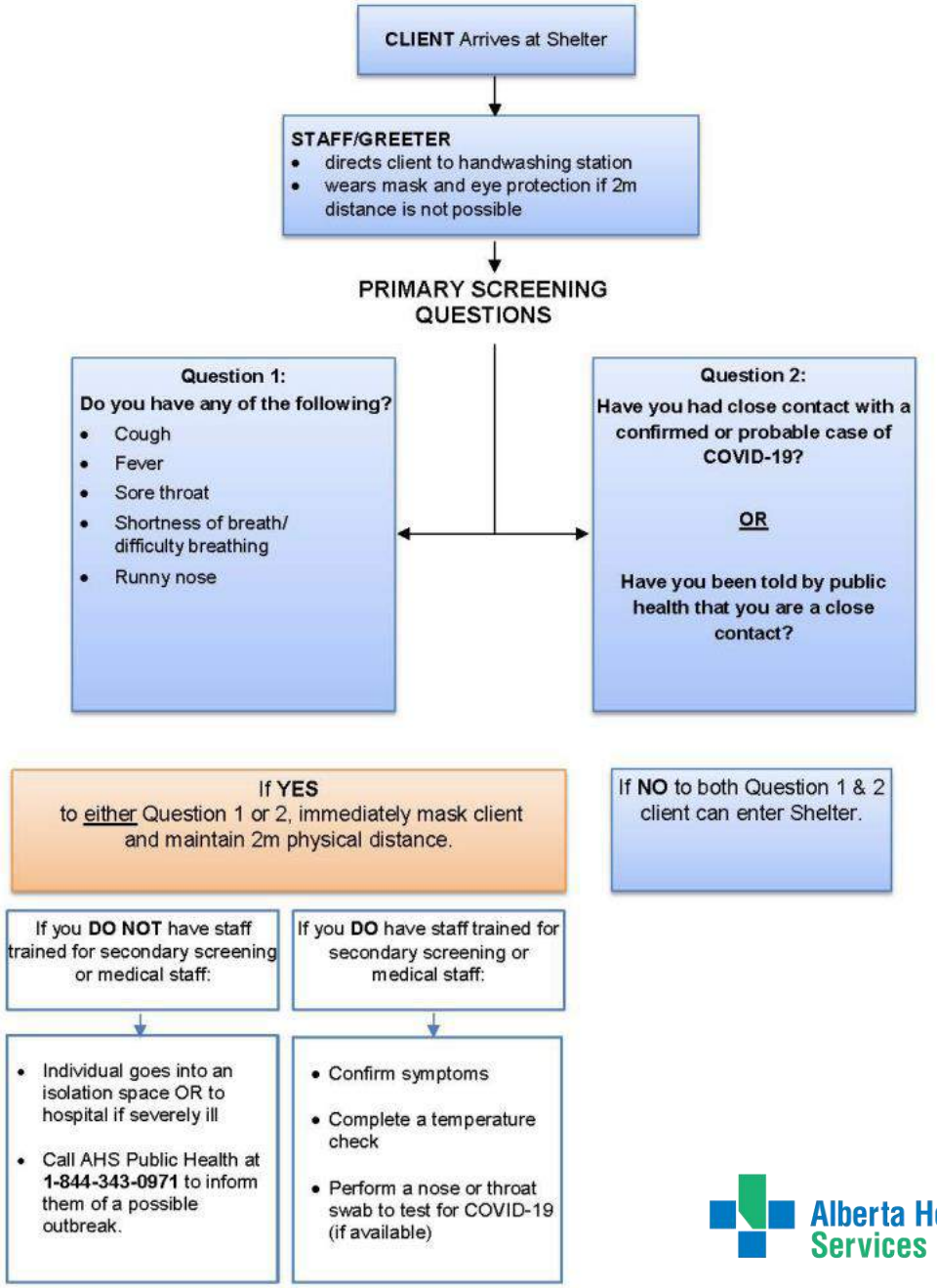
SCREENING

- Primary and Secondary Screening
- Primary = Done by shelter non-medical staff.
- Secondary = Done by trained medical staff.



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ISOLATION

- Case Identification and Case Removal.
- Isolation spaces should should be external to shelter space.
- Private rooms preferred but may not be practical.
- Clients pending results should not participate in group small group situations.
- Adequately triage clients who maybe high medical needs or flight risk to the hospital or another facility.
- Provide adequate medical, substance use and mental health support while clients are in isolation.
- Check in on clients at least twice a day verbally, and more if needed.

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	MENTAL HEALTH/ ADDICTION NO FLIGHT CONCERNS This person typically is independent in the community and requires no special support. No challenges in complying with quarantine/isolation protocols	MENTAL HEALTH/ ADDICTION MILD FLIGHT CONCERNS These are candidates with identified MINIMAL specific risks for challenges in complying with routine quarantine/isolation requirements due to mental health and addictions. Case management: This individual would require 1-5 hours case management support per week in the community	MENTAL HEALTH/ ADDICTION MODERATE FLIGHT CONCERNS These are candidates with MODERATE mental health and substance use concerns with risks for challenges in complying with routine quarantine/isolation requirements requiring higher level mental health and addictions case management and nursing support 24/7 non-clinical: This individual would require presence of 24/7 on site staffing without full time nursing or full time behaviour therapists (boarding home; tolerates co-living). Greater likelihood of flight from room (not more than once or twice per week).	MENTAL HEALTH/ ADDICTION HIGH FLIGHT CONCERNS These are individuals with SEVERE clinical course, or have very significant mental health or addictions concerns. MORE INTENSIVE MONITORING CARE ie. all clients require more security and should be on the same floor of the hotel. Long-Term Care equivalent: This individual would require presence of 24/7 on site staffing Challenges in complying with quarantine and isolation requirements and are likely not candidates for outpatient shelter based care during isolation or quarantine.
MEDICAL Grade 1 These are candidates with a mild clinical course to date, no identifiable risks for severe COVID disease	Private room isolation either in community or ISO hotel subacute. No additional management but daily phone follow up.	Potential private room with DAILY follow up or ISO hotel sub acute floor and peer worker support.	ISO Hotel MODERATE security floor with additional support with peer workers/case managers to keep clients engaged in self isolation.	HOSPITAL OR. ALTERNATIVE HIGH SECURITY SITE.
MEDICAL Grade 2 These are candidates with MILD clinical course to date, but have identified risks including being above 55, underlying heart or lung disease, or diabetes requiring additional nursing support	Private room isolation either in community or iso hotel subacute. No additional management but TWICE daily phone follow up.	ISO Hotel Sub Acute Floor with TWICE daily physical nursing check ins and peer worker support.	ISO Hotel MODERATE security floor with additional support with peer workers/case managers to keep clients engaged in self isolation.	HOSPITAL OR. ALTERNATIVE HIGH SECURITY SITE.
MEDICAL Grade 3 These are candidates with MODERATE clinical course with increased shortness of breath,	ISO Hotel Sub Acute Floor with increased nursing check ins with twice a day physical check ins and two daily phone check ins.	ISO Hotel Sub Acute Floor with increased nursing check ins with twice a day physical check ins and two daily phone check ins with occasional peer support.	ISO Hotel MODERATE security floor with increased nursing check ins with twice a day physical check ins and two daily phone check ins with peer workers/case managers to engage client.	HOSPITAL OR. ALTERNATIVE HIGH SECURITY SITE.
MEDICAL Grade 4 These are candidates with SEVERE clinical course with increased respiratory distress and hypotension or actively require palliation.	HOSPITAL preferably or possible ISO hotel if client refuses care in Hospital with understanding of sub-par care and possible risk of death.	HOSPITAL preferably or possible ISO hotel if client refuses care in Hospital with understanding of sub-par care and possible risk of death	HOSPITAL	HOSPITAL OR. ALTERNATIVE HIGH SECURITY SITE.

SECOND STAGE SHELTERS

- Depending on the medical needs, they can be managed as regular families, with potential for additional supports.
- Have 2 weeks worth of food available, or daily food deliveries.
- Twice daily phone health checks by the client's family care providers if present.
- Scheduled use of common space including livings spaces and/or kitchens.

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SUPPORTING WOMEN FROM VIOLENCE DURING COVID-19

(1) Guarantee 24/7 service on a 180 Hotline, and maintenance of services by the boards for children's right, either in person or by telephone, WhatsApp, cellphone apps, and other online channels should be available for filing complaints of violations;

(2) Guarantee speedy processing of complaints, which can be lodged by the victims with the police precinct officer or through the Office of the Public Prosecutor, aimed at establishing urgent protective measures when necessary;

(3) Reinforce advertising campaigns with a central focus on the importance of other people not turning their backs on cases of spousal abuse. Awareness-raising campaigns are also needed on various forms of child abuse. Neighbors, relatives and friends can make all the difference in such situations;

(4) Encourage initiatives to support women, children, and adolescents in situations of violence, based on solidarity and social assistance, legal aid, and psychological and physical healthcare;

(5) Insofar as possible, it is important for women in situations of violence to practice social distancing in the company of other family members besides just the abusive husband and the children;

(6) In extreme situations, it is important for the woman to keep her cellphone protected, as well as the telephones of family members and friends that the woman can count on in emergency situations, besides a safe escape plan for the woman and her children.

Marques Emanuele Souza, Moraes Claudia Leite de, Hasselmann Maria Helena, Deslandes Suely Ferreira, Reichenheim Michael Eduardo. Violence against women, children, and adolescents during the COVID-19 pandemic: overview, contributing factors, and mitigating measures. Cad. Saúde Pública [Internet]. 2020 [cited 2020 May 08] ; 36(4): e00074420. Available from: http://www.scielo.br.login.ezproxy.library.ualberta.ca/scielo.php?script=sci_arttext&pid=S0102-311X2020000400505&lng=en. Epub Apr 30, 2020. http://dx.doi.org.login.ezproxy.library.ualberta.ca/10.1590/0102-311x00074420.

SUPPORTING WOMEN AND CHILDREN

Know who to call for help. Child Helpline International is a worldwide network of 173 helplines across the world.

Create a safety plan by using this **interactive safety planning tool** from Love is Respect.

Access resources for survivors of domestic abuse

Speak to a crisis counsellor within the US, Canada and the UK.

Use technology to communicate with survivors

Protect children in alternative care settings. The Alliance for Child Protection in Humanitarian Action has released a new **Technical Note** to support child protection practitioners and government officials in their immediate response to the child protection concerns faced by children who are at risk of separation or in alternative care during COVID-19 pandemic, along with one centred on **children in detention centres**.

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OUTBREAK MANAGEMENT

- Declaration of outbreak.
- Determine roles and responsibilities before hand.
- Definition of outbreak varies region to region.
- Perform swabbing for all clients and contacts including staff.
- Consider a lock down with rapid triaging and, if necessary, decanting to another site.
- Limit staff-to-client interaction as much as possible and ensure staff wear appropriate PPE.

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OUTBREAK MANAGEMENT

- Isolate symptomatic clients
- Do not permit mingling with others. This includes enforcing restrictions on isolated client movements, and limiting access within the facility to only their assigned floor/space.
- Designate a washroom solely for use by isolated clients. Cleaning and disinfection should occur with greater frequency (between every client use, or hourly if that is not possible).
- Continue meal support to the cohort and other essential service provision to the clients while ensuring appropriate infection control measures.
- If separate isolation spaces for each client cannot be provided, clients can be placed in a group setting. In regards to sleeping arrangements, ensure that there is at least 2 metres of spacing between clients.

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SUPPORTING CHILDREN IN ISOLATION

- Maintain routine
- Spend time indoors, and if possible outdoors while social distancing.
- Maintain Social connections
- Utilize safe and supervised online programs and activities.

https://www.who.int/news-room/campaigns/connecting-the-world-to-combat-coronavirus/healthyathome/healthyathome---healthy-parenting?gclid=CjwKCAjw4871BRAjEiwAbxXi29MW4O5ANcESs_y9QaTUzq9uheTZDpxNWIo3UIyTc_YUipwbd6XKhBoCENIQAvD_BwE

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OUTBREAK MANAGEMENT: SECONDARY SWABBING

Method of diagnosis	No. (%) with COVID-19 diagnosis	
	Residents assessed (N = 195)	Staff members assessed (N = 38)
Testing event 1	15 (8)	4 (11)
Testing event 2	16 (8)	2 (5)
Symptom screening	2 (1)	—
Evaluated elsewhere	2 (1)	2 (5)
Total	**35 (18)**	**8 (21)**

Tobolowsky FA, Gonzales E, Self JL, et al. COVID-19 Outbreak Among Three Affiliated Homeless Service Sites — King County, Washington, 2020. MMWR Morb Mortal Wkly Rep. ePub: 22 April 2020. DOI: http://dx.doi.org/10.15585/mmwr.mm6917e2

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WHOLE FACILITY ISOLATION AND LOCKDOWN

- Work with local health authority on this.
- Create strict access to facility control.
- Utilize security to monitor access and movement within facility.
- Identify and place more sick or unwell clients to areas where more supervision can occur.
- Where possible, provide independent isolation spaces to clients. This could be in the form of a private hotel unit or a cohorted isolation space.
- Universal masking of all clients and staff.

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ISOLATION MANAGEMENT

1. Substance use management including harm reduction.
2. Detoxification Services
3. Relapse Prevention
4. Ultimate goal is to keep clients safe within their quarantine location.

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RETURNING A CLIENT TO A FACILITY POST ISOLATION

- Post outbreak clearance process decided by Public Health.
- Letter of discharge provided.
- Continued regular primary and secondary screening.
- Consider re-isolation if a client has symptoms again.

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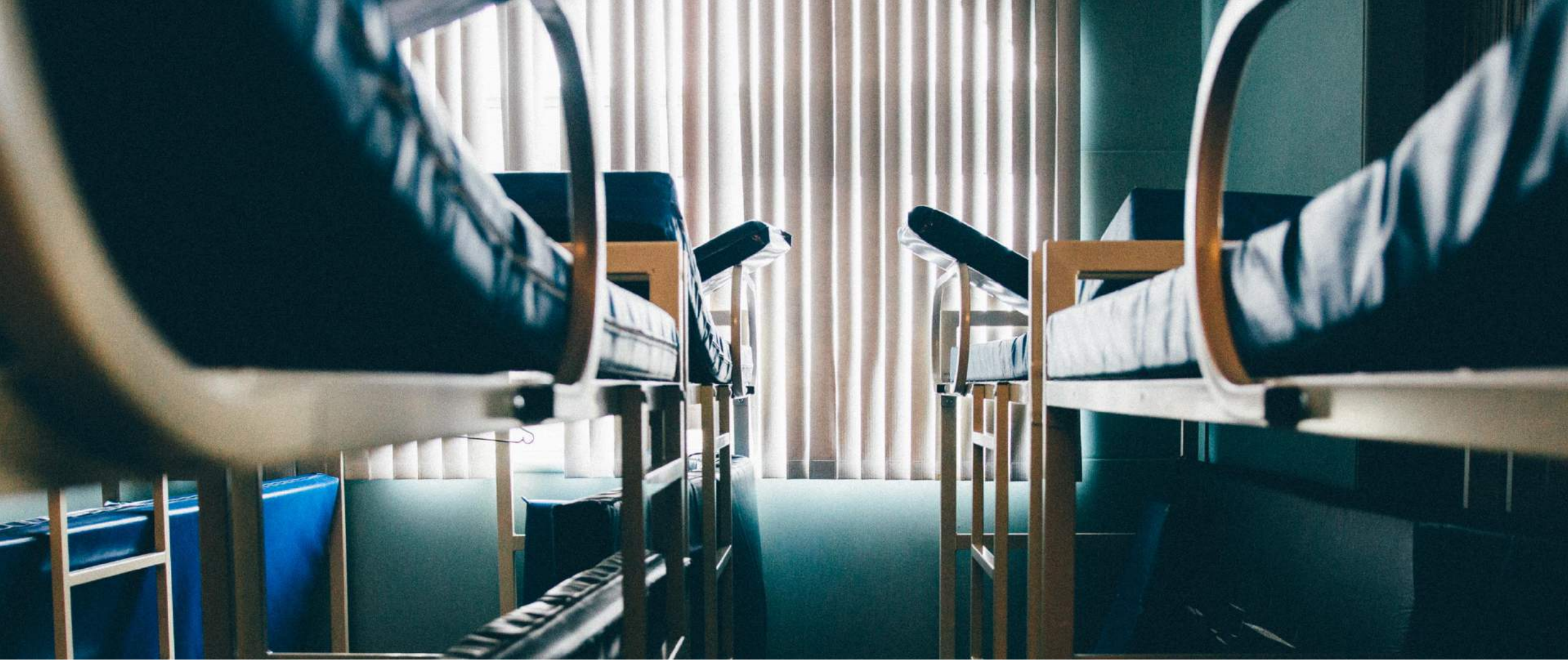
Far too often, medical needs are neglected [for people] experiencing marginalization tied to homelessness…

In-house access to minor medical care says to me [that] someone cares about me…

I believe it will go a long way in helping to reduce stigma when accessing medical care.

- Member of CHF Client Action Committee



QUESTIONS?