Chemsex & Mental Health in gbMSM in Montreal:
Results from Engage Cycle 1

November 8 & 9, 2018
Gay Men's Health Summit 2018 – Vancouver, BC

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Objective

To provide a descriptive profile of Engage-Montreal participants who engage in chemsex
including a consideration of mental health and the use of prevention and care services

Background

- **Defining chemsex :**
  - « Sexual intercourse under the influence of psychoactive substances,
    - in particular **gammahydroxybutyrate (GHB) / gammabutyrolactone (GBL), mephedrone** and **crystal methamphetamine** » [1]
    - « … and to a lesser extent: **cocaine** and **ketamine** » [2,3]

- **Also known as…**
  - Party n Play / PnP
  - « Chillout » parties

- Chemsex as a **historical** and **sociological** phenomenon

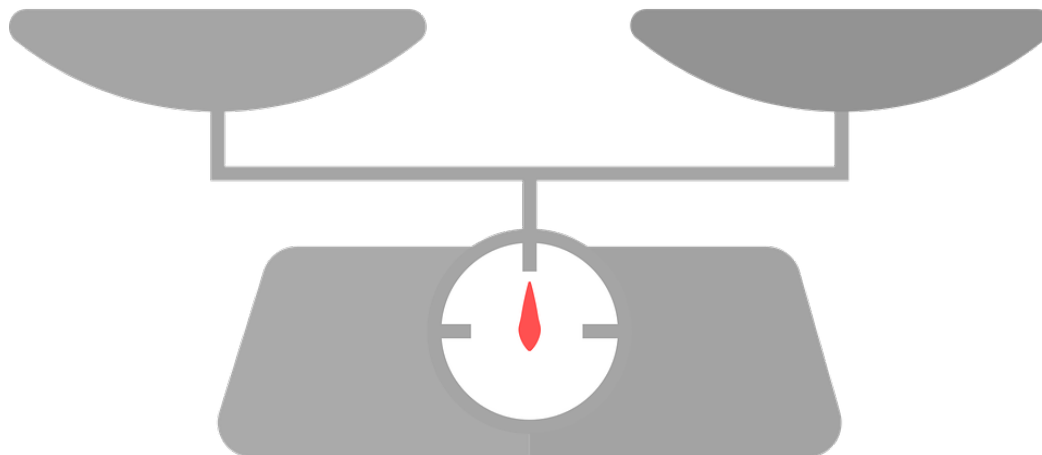- Definitions of chemsex are **a function of local drug markets**

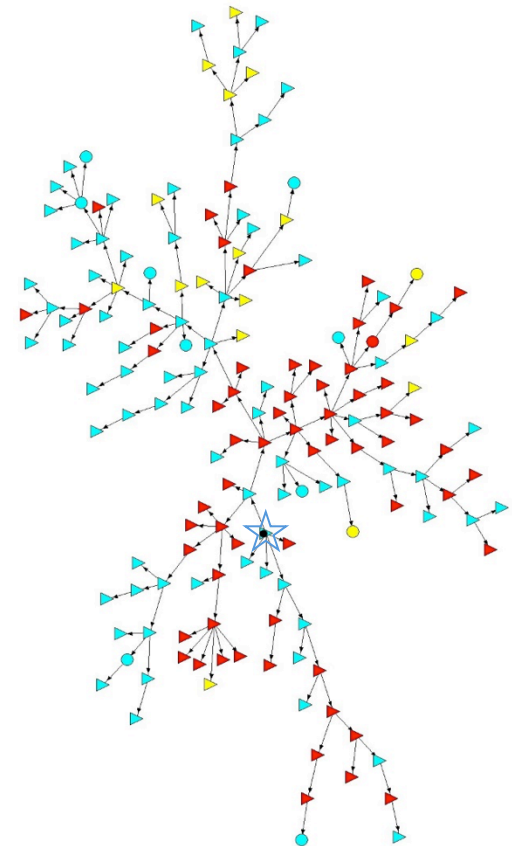Références: 1. Macfarlane, 2016; 2. Pakianathan, 2018; 3. Bourne, 2014

Risks

- *Overdoses & substance use addiction*
- *Short and long-term mental health issues*
- *Sexual risk taking*
- *Non-adherence to PrEP or HIV treatment*
- *HIV non-disclosure*
- *Issues related to consent*
- *Erectile difficulties*
- *Social isolation & interiorized stigma*

Benefits

- *Facilitation of sexual encounters that are more intense and more prolonged*
- *Sexual encounters with more partners*
- *Sexual disinhibition and confidence*
- *Feelings of belonging to a community*

Methods

- **Recruitment method:**
  - Respondent-driven sampling (RDS)
  - 27 seeds
  - N = 1179
  - Recruitment period: February 2017 – June 2018

- **An Engage study visit includes:**
  - CASI Questionnaire
  - STI screening tests, including HIV rapid test
  - Financial incentive

- **Exploratory descriptive analyses**
  - Data presented is RDS-adjusted (where possible)
  - Asterisks indicate variables where the confidence intervals around the RDS-adjusted estimates do not overlap

Légende:
- HIV Negative
- HIV Positive
- Unknown HIV status

- △ Older than 30 years
- ○ 30 years old and younger
- ☆ Initial "seed" participant

Results : ASSIST Scale

What classes of non-prescription substances were used by Engage-Montreal participants In the past 6 months? *(n = 1179)*	Number of participants	RDS-adjusted %
Tobacco	525	44.4
Alcohol	986	80.7
Cannabis	631	47.5
Cocaine	319	24.3
Amphetamines *(ecstacy/MDMA, crystal meth, mephedrone, speed, Ritalin, Adderall)*	338	23.8
Inhalants *(amyl or butyl nitrate/poppers, nitrous oxide)*	377	23.4
Sedatives *(benzodiazepines, barbiturates, GHB)*	283	20.5
Hallucinogens *(ketamine, mushrooms, LSD, 2C-B, PCP, MDA, ayahuasca)*	199	13.2
Opioids *(Heroin, morphine, codeine, Oxycontin, Dilaudid, Fentanyl)*	93	8.3
Erectile difficulty drugs *(Viagra, Cialis, Levitra)*	259	16.5

Results : Sex under the influence

What proportion of sexual encounters reported by all Engage-Montreal participants were under the influence of… ? *(n = 4360 sexual encounters reported by 1179 partcipants)*	Number of sexual encounters	% of all sexual encounters
Alcohol	1568	36.4
Alcohol *(5 drinks or more)*	667	15.7
Cannabis	892	20.7
Cocaine	290	6.7
Crystal methamphetamine	254	5.9
GHB	266	6.2
Ecstacy / MDMA	107	2.5
Ketamine	66	1.5
Viagra / Cialis / Levitra *(non-prescription)*	456	10.6
Poppers	509	11.8
Other drugs	56	1.3
Sex under the influence of <u>at least one </u>substance	2441	56.6

What is a working definition of chemsex?

For our analyses, we used the following definiton of chemsex:

- Use of the following substances up to **2 hours before or during sex**,
  with **at least one** of their last 5 sexual partners **over the past 6 months**

  - *Crystal methamphetamine*

  - *GHB*

  - *Ecstacy / MDMA*

  - *Cocaine*

  - *Ketamine*

For these analyses, the use of alcohol, marijuana, poppers, erectile difficulty drugs or other drugs before or during sex is **NOT** considered « chemsex »

References 2. Pakianathan, 2018; 3. Bourne, 2014; 4. Macfarlane 2016

Results: Prevalence of chemsex

How many participants of engaged in chemsex? (n = 1179)	Number of participants	RDS-adjusted %
Participants reporting use of at least one of the substances used in chemsex in the past 6 months: *Crystal methamphetamine, GHB, Ecstacy/MDMA, cocaine, ketamine*	452	31.0
Participants reporting having engaged in chemsex: *« Use of crystal methamphetamine, GHB, ecstacy/MDMA, cocaine or ketamine in the 2 hours before or during sex with at least one of their last 5 partners in the past 6 months »*	283	18.7

What proportion of participants engaged in chemsex with one or more of their last 5 sexual partners in the last 6 months? (n=1179)	Number of participants	RDS-adjusted %
No chemsex with their last 5 sexual partners	886	81.3
<u>At least one</u> of their last 5 sexual partners	283	18.7
<u>Two or more</u> of their last 5 sexual partners	150	7.5

Results

Participant characteristics	Engaged in chemsex with at least one of last 5 sexual partners in the past 6 months (N=283)	Did NOT engage in chemsex with any of their most recent 5 sexual partners in the past 6 months (N=886)
Sociodemographic characteristics		
Age *(mean)*	40.2	36.8
Income: *% who made less than 30,000$*	68.2	66.4
Education level: *% whom primary, secondary or technical school is the highest level of education they obtained*	46.9	32.1
Bio-behavioural characteristics		
6 sexual partners or more* *(in the past 6 months)*	56.4	33.7
Transactional sex * *(given or received money in exchange for sex in the past 6 months)*	19.5	4.7
Group sex* *(in the past 6 months)*	34.8	11.6
Self-reported HIV positive status	22.1	12.6
PrEP Use *among self-reported HIV- (in the past 6 months; n= ___)*	18.0	5.6

Results: Mental health

	% who engaged in chemsex with at least one of last 5 sexual partners in the past 6 months (n=283)	% who did NOT engage in chemsex with any of their most recent 5 sexual partners in the past 6 months (n=886)
Self-reported mental health status (over the past 6 months)		
How was your mental health in general? *(Answer : fair or poor)*	28.2	23.9
Sexual compulsivity Scale		
Mean compulsivity score (1 = low; 4 = high)	2.04	1.77
Risk of dependence and/or developing health problems related to substance use – ASSIST Scale		
Moderate or high risk *	62.0	12.1

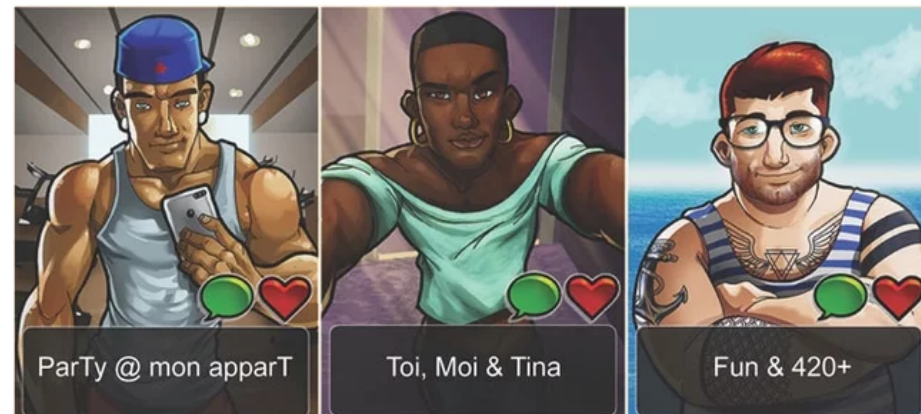|	% who engaged in chemsex with at least one of last 5 sexual partners in the past 6 months (n=283)	% who did NOT engage in chemsex with any of their most recent 5 sexual partners in the past 6 months (n=886)
Depression and Anxiety (in the past week) – HAD Scale		
Depression * *(Score: moderate or severe)*	**40.8**	**25.1**
Anxiety *(Score: moderate or severe)*	**13.8**	**10.1**
Was ever diagnosed with a mental health condition (by a mental health professional)		
Major depressive disorder *	**24.2**	**6.5**
Anxiety disorder *(e.g., panic attacks, social anxiety, worry)*	**26.6**	**14.6**

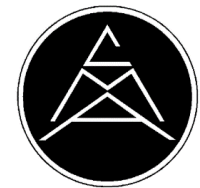# Results: Use of prevention & care services

	% who engaged in chemsex with at least one of last 5 sexual partners in the past 6 months (N=283)	% who did NOT engage in chemsex with any of their most recent 5 sexual partners in the past 6 months (N=886)
Mental health service providers *Has seen or talked to a mental health service provider about his emotional or mental health in the past 6 months*	27.8	26.4
Regular primary healthcare providers *Has a regular primary healthcare provider*	67.2	57.8
Sexual health clinics *Went to a distinct clinic for issues relating to sexual health, STI check-ups or STI treatment in the past 6 months*	45.4	39.6
Substance use harm reduction services * *Has received treatment, counseling or harm reduction services for their substance use in their lifetime*	29.3	6.7
Community based-organisations *Has received information about his sexual health from community-based organisations at least once in the past 6 months*	26.9	22.7

Examples of chemsex-related interventions offered by community-based organizations in Montreal:

- *Kontak*

- *MonBUZZ*

- *Crystal Meth Anonymous*

- *"Let's talk Meth and Sex" Workshop*

- *" Meth & Réalité " Website*

KONTAK

MON BUZZ.CA

METH & RÉALITÉ

ParTy @ mon apparT

Toi, Moi & Tina

Fun & 420+

Limitations

- *Sample of urban gbMSM*

- *Limited and missing data*

- *Participant recall*

- *Social desirability bias*

- *Cross-sectional nature of the study*

Conclusions

- **Chemsex is a phenomenon that is actively occurring in Montreal gbMSM communities**

- **Guys who engage in chemsex reported significantly more... when compared to those who do not engage in chemsex**
  - *Sex with more than 6 partners*
  - *Group sex*
  - *Transactional sex*
  - *Depression*
  - *Use of substance use harm reduction services*

- **There are many avenues of intervention available to reach guys who engage in chemsex**

Next steps

- *A closer look at **polysubstance use** (utilising latent class analysis)*

- ***Sensitivity analyses** using different définitions of chemsex*

- ***Trend and incidence** comparisons*

- *Stratifying sexual encounters **by partner type***

- *Examining **STI prevention strategies** utilised*

- *Identifying **barriers to accessing mental health care services***

- *Potential for **qualitative work***

Thank you!

- … to all the Engage-Montreal participants!

- …. to the Engage-Montreal Community Engagement Committee

- … to the CBRC for organizing this summit

- … to the Engage funders for making the study possible

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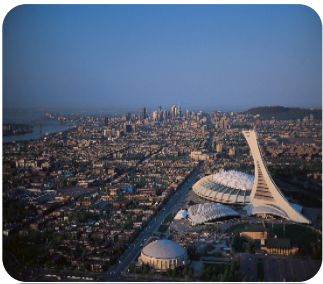**Nathan Lachowsky,** School of Public Health and Social Policy at the University of Victoria
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References

1. Macfarlane, A. (2016). *Sex, drugs and self-control : Why chemsex is fast becoming a public health concern.* J Fam Plann Reprod Health Care. 42: 291-294.

2. Pakianathan, M., Whittaker, W., Lee, MJ., Avery, J., Green, S., Nathan, B., Hegazi, A. (2018). *Chemsex and new diagnosis in gay, bisexual and other men who have sex with men attending sexual health clinics.* HIV Medicine. 19: 485-490.

3. Bourne, A., Reid, D., Hickson, F., Torres Rueda, S., Weatherburn, P. (2014) The Chemsex Study: Drug use in sexual settings among gay ans bisexual men in Lambeth, Southwark & Lewisham. Sigma Research, London School of Hygeine & Tropical Medicine

4. Bourne, A., Reid, D., Hickson, F., Torres Rueda, S., Weatherburn, P. (2015) « Chemsex « and harm reduction need among gay men in South London. J Int Drug Policy. 26: 1171 - 1176

Questions for Discussion

- *What factors associated with chemsex should be further investigated?*

- *Do these data reflect the reality of chemsex in other Canadian cities?*

- *What are interesting questions for qualitative work?*

Extra Results : Substance use in past week

What classes of non-prescription substances were used by Engage-Montreal participants **in the past week?** *(n = 1179)*	Number of participants	RDS-adjusted %
Tobacco	387	31.7
Alcohol	727	57.1
Cannabis	287	21.5
Cocaine	63	5.5
Amphetamines *(ecstacy/MDMA, crystal meth, mephedrone, speed, Ritalin, Adderall)*	60	3.9
Inhalants *(amyl or butyl nitrate/poppers, nitrous oxide)*	80	4.3
Sedatives *(benzodiazepines, barbiturates, GHB)*	69	6.0
Hallucinogens *(ketamine, mushrooms, LSD, 2C-B, PCP, MDA, ayahuasca)*	3	0.15
Opioids *(Heroin, morphine, codeine, Oxycontin, Dilaudid, Fentanyl)*	19	1.1
Erectile difficulty drugs *(Viagra, Cialis, Levitra)*	74	4.9