### Implementing Electronic Coupons Within Respondent-Driven Sampling to Improve Recruitment of Men Who Have Sex With Men in Vancouver, British Columbia

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### Background

- HIV research has increasingly employed respondent-driven sampling (RDS) to access and recruit "hidden" populations, such as gay bisexual, and other men who have sex with men (MSM).
- Within RDS, participants are provided with a limited number of coupons for onward recruitment of their peers. Traditionally, these are paper coupons.
- We sought to identify the factors associated with having been recruited through an electronic versus paper coupon

### **Methods**

#### **Eligibility Criteria:**

- Aged 16 years or greater
- Gender identify as male
- Had sex with another man in the past 6 months
- Residing in Metro Vancouver (population of ~2.5 million)
- Understand and complete questionnaires written in English

#### **Study Details**

• Used respondent-driven sampling

# Table 1. Descriptive statistics and multivariable modelfor redeeming an electronic coupon VS paper coupon

	Re	Redeemed			Redeemed			
	e-Coupon			Paper Coupon				
	(n=9	(n=93, 15.6%)		(n=503, 84.4%)				
	n	%	RDS	n	%	RDS	AOR	95% CI
Currently Employed			%			%		
	10	77	6.4	216	02.3	02.6	Pof	
NU	75	20.7	0.4	210	92.3	93.0	2 40	1 46 6 50
Tes Current lleveing	75	20.7	16.7	207	79.3	83.3	3.10	1.40 - 0.59
	02	16.4	40.4	400	02.6	07.0	Dof	
House/residence	83	10.4	12.4	422	83.0	87.6		0.64 4.70
Temporary nousing	6	13.0	9.7	38	86.4	90.3	1.70	0.61 - 4.79
Homeless	2	15.4	25.9	11	84.6	74.1	6.48	1.39 – 30.25
In-care	2	9.5	2.4	19	90.5	97.6	0.44	0.03 - 6.07
Year Out as "Gay"	47	470		00	00.0			
14	1/	17.0	17.4	83	83.0	82.6	Ref	0.00 4.40
510	24	19.5	15.8	99	80.5	84.2	0.48	0.20 – 1.13
1121	33	22.4	15.3	114	77.6	84.7	0.40	0.17 – 0.91
22+	11	7.4	3.9	138	92.6	96.1	0.10	0.03 – 0.31
Bisexual-identified	5	8.1	7.5	57	91.9	92.5	0.54	0.17 – 1.70
Not out	3	20.0	17.8	12	80.0	82.2	4.31	0.72 – 25.77
Out to workplace								
No	10	10.3	6.4	87	89.7	93.6	Ref	
Yes	79	18.2	15.8	356	81.8	84.2	3.88	1.44 – 10.45
Out to male parent/guardian								
No	19	11.7	6.0	144	88.3	94.0	Ref	
Yes	68	17.4	15.2	323	82.6	84.8	2.53	1.14 – 5.62
Read Gay Media, P6M								
No	15	13.9	7.8	93	86.1	92.2	Ref	
Yes	78	16.0	12.9	410	84.0	87.1	2.61	1.18 – 5.75
Anal Sex Position Preference								
Bottom	30	15.0	9.2	170	85.0	90.8	Ref	
Versatile	18	10.9	9.2	147	89.1	90.8	0.82	0.36 – 1.89
Тор	39	19.2	15.4	164	80.8	84.6	1.69	0.82 – 3.50
No anal	6	21.4	15.6	22	78.6	84.4	4.97	1.37 – 18.01
Common Law								
No	19	14.8	6.9	109	85.2	93.1	Ref	
Common Law / Married	18	17.3	16.7	86	82.7	83.3	3.00	1.12 – 8.00
No regular partner	56	15.4	11.9	308	84.6	88.1	2.19	0.93 – 5.17
Asks Partner's HIV Status	-			-	-		-	
<50% of time	45	17.1	14 2	218	82.9	85.8	Ref	
>50% of time	27	13.6	77	171	86.4	92.3	0.47	0.23 – 0.97
100% of time	21	15.6	11 8	114	84.4	88.2	0.78	0.37 – 1.62
HIV Test. ever			11.0			50.2		
No	4	11 8	3 2	30	88 2	96.8	Ref	
Yes	89	15.8	12.4	473	84 2	87.6	5.88	0.93 - 37 17

- Seeds were selected online (e.g., Grindr, social media) or offline (e.g., community agency, social group)
- Recruitment coupons were electronic or paper.
- Participants completed a self-administered computer-based survey followed by a nurse-administered clinical questionnaire

#### **Outcome of Interest:**

• Redeemed electronic coupon VS paper coupons

#### **Explanatory Variables:**

 Demographics, sexual practices and preferences, and social and community connection

#### **Data Analysis**

- All analyses were weighted given use of RDS
- Multivariate logistic regression with backward selection was used to examine independent associations with the outcome of interest (p<0.05 considered significant)</li>

### Results

- Of 719 MSM recruited (119 seeds), 80.7% were gay-identified, 74.6% were born in Canada, 74.1% had annual incomes less than \$30,000 CAD, 65.7% had postsecondary education, 52.1% were employed, and 23.4% were HIV-positive. In terms of race/ ethnicity, 68.1% were White, 10.4% were Aboriginal, 9.9% were Asian, and 6.9% were Latin American. The median age was 33 (Q1-Q3: 26-47).
- Of 600 participants recruited from seeds within the study, 93 redeemed electronic coupons (15.6%) and 503 redeemed paper coupons. Four participants had missing data on coupon type.
- Men who redeemed online coupons were more likely to have

AOR = Adjusted Odds Ratio, 95%CI = 95% Confidence Interval; P6M = past six months **Bolded text** indicates statistical significance at p<0.05

## Conclusion

- Participants recruited through electronic vouchers vary on some socio-demographic factors and appear to have different connections to gay identities and communities than those recruited in person.
- Innovative use of recruitment e-coupons parallels changes in online gay communities and MSM networking. It assisted in reaching a more diverse group of MSM within our RDS sample

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- been within a recruitment chain started by an online seed (91.4%) compared with men who redeemed paper coupons (84.4%; OR=1.97 95% CI:1.18,3.27).
- Descriptive statistics and factors independently associated with redeeming an electronic coupon are shown in **Table 1**.

I have no conflicts of interest. **BRITISH COLUMBIA** POSITIVE LIVING SOCIETY Vancouver HEALTH INITIATIVE **CENTRE** for **EXCELLENCE** CoastalHealth BC Centre for Disease Contro in HIV/AIDS moving men's health research forwar **IAS 2015** JB University SFU of Victoria ancouver, canada CIHR IRSC How you want to be treated.