

# HPV infection and anal dysplasia in Vancouver:

Preliminary findings from the ManCount Survey

Dr. Mark Gilbert  
BC Centre for Disease Control  
Gay Men's Health Summit, Nov 10 '09



# Acknowledgements

## Study Team

BC Centre for Disease Control

- Dr. Mark Gilbert (PI), Michael Kwag, Wendy Mei

BC Centre for Excellence in HIV

- Dr. Bob Hogg (PI), Eric Druyts, Arn Schilder  
Dr. David Moore

Community-Based Research Centre

- Dr. Rick Marchand, Dr. Terry Trussler

Health Initiative for Men

- Phillip Banks, Jim Sheasgreen

Public Health Agency of Canada

- Dana Paquette, Rhonda Kropp, Stephen Cule, Susanna Ogunnaike-Cooke, Maureen Perrin, Marissa Maguire, Liz Venditti, Gayatri Jayaraman, Dr. Chris Archibald

Vancouver Coastal Health

- Dr. Réka Gustafson (PI), Miranda Compton

## Survey Interviewers:

- Jody Jollimore, Adam Graham, Dirceu Campos, Lukas Maitland, Olivier Ferlatte, Seamus Sullivan, Ray Sullivan

## HPV (Self-collection) Component

BC Cancer Agency

- Dr. Chen Zhou, Dr. Dirk van Niekerk, Dr. Kathy Seballos, Jane Lo

BC Centre for Disease Control

- Dr. Gina Ogilvie, Darlene Taylor

National Microbiology Laboratory

- Dr. Alberto Severini

## Community Advisory Committee

- Robert Hong (VCH), Paul Harris (BCCFE), Shimpei Chihara (ASIA), Elgin Lim (BCPWA), Richard O'Donnell (VCH), Chris Buchner (Qmunity), Matthew Taylor (PEERS), Hywel Tuscano (YouthCO), Devon MacFarlane (VCH)



# ManCount Survey

- Vancouver site of the M-Track surveillance system
- Recruitment at gay community venues, groups, events
- Questionnaire and collection of dried blood spots (DBS) for testing for HIV and other sexually transmitted infections
- Eligible if identified as a man who has sex with men, age 19 years or older
- Survey ran from August 2008 to February 2009
- 1169 men participated
- 1139 (97.4%) contributed a dried blood spot



# Self-collection of rectal swabs

- Can be tested for Human Papillomavirus (HPV), *Chlamydia*, gonorrhea, and abnormal anal cells (anal dysplasia)
- High prevalence among gay men and other MSM, particularly HIV positive men
- In general, considered equivalent to specimens collected by health care providers
- Methodology developed and validated in the Vanguard study (BCCFE)



## Objective (Sub-study)

- Use self-collected rectal swabs to measure the prevalence of HPV, *Chlamydia*, gonorrhoea, and abnormal anal cytology among gay, bisexual and other MSM in Vancouver
- Incorporating into Mancount allows for the analysis to include questionnaire and DBS data (e.g., risk behaviours, HIV status) along with swab results

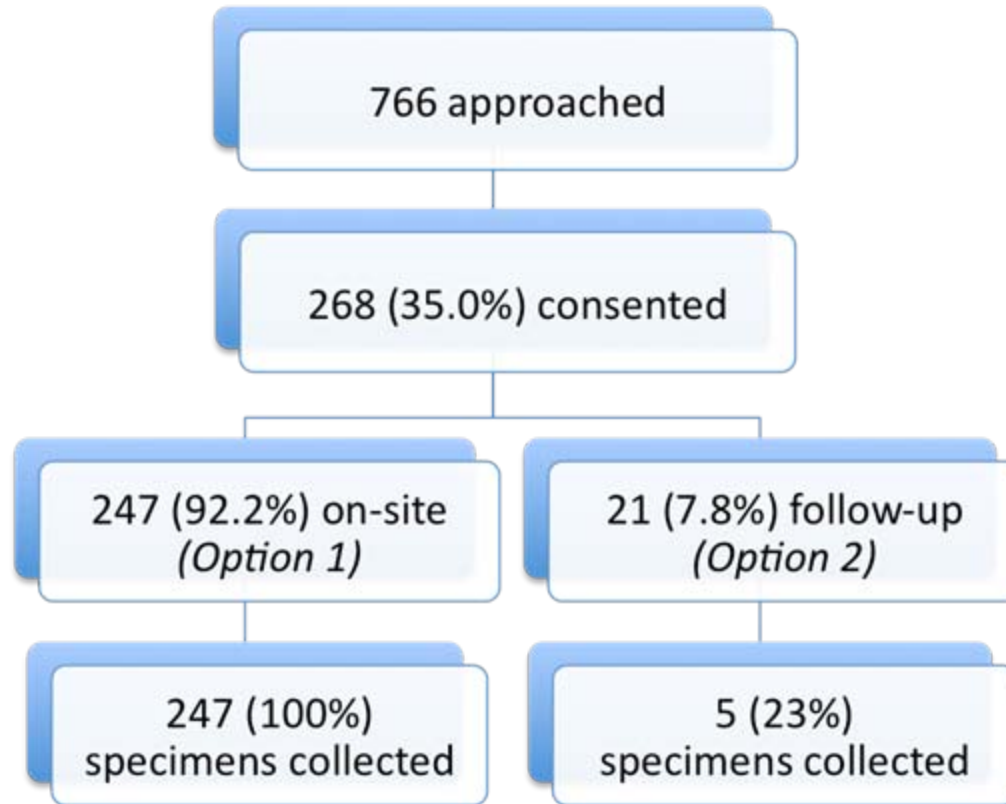


# Methods

- Subset of ManCount participants (September '08 to February '09)
- At completion of DBS and questionnaire, consented for self-collection component
- On-site (Option 1) or at follow-up site (Option 2)
- Given self-collection kit
- \$10 honorarium
- Tested HPV, Ct, Gc, cyt



# Results - Participation



***In total, 252 specimens collected***  
***239 (94.8%) specimens of sufficient quality for testing***



# Results – Anal Cytology

Specimen adequacy	Number	Percent
Satisfactory for analysis	149 / 239	62% [56-69%]
Unsatisfactory for analysis	90 / 239	38% [32-44%]
<i>Unsatisfactory for analysis (Vanguard study, same protocol)</i>		17% [12-22%]

- Explanations?
  - Fatigue
  - Not fully inserted
  - Lubricant, douching
  - Environmental factors



# Results – Anal cytology

\*satisfactory specimens only

Category	Total (n=149)	HIV+ (n=42)	HIV- (n=107)
Normal cytology	58% [50-66%]	36% [21-50%] <i>29-76%</i>	66% [57-75%] <i>68-100%</i>
High grade squamous intra-epithelial lesion (HSIL)	11% [6-17%]	31% [17-45%] <i>5-22%</i>	4% [0-7%] <i>3-5%</i>
Low grade squamous intra-epithelial lesion (LSIL)	19% [13%-25%]	26% [13-40%] <i>19-49%</i>	16% [9-23%] <i>7-5%</i>
Atypical results (ASCUS, ASC-H)	12% [7-17%]	7% [0-15%] <i>7-26%</i>	14% [7-21%] <i>5%</i>



# Results – HPV infection

Betaglobin (marker of adequacy)	Number	Percent
Betaglobin positive	159 / 239	67% [62-72%]
Betaglobin negative	80 / 239	33% [28-38%]



# Results – HPV infection

\*Betaglobin positive specimens only

Category	Total (n=159)	HIV+ (n=42)	HIV- (n=116)
HPV Negative	<b>38%</b> [30-45%] <i>17-35%</i>	<b>21%</b> [9-33%] <i>6-65%</i>	<b>43%</b> [34-52%] <i>8-60%</i>
Low Risk HPV type	<b>37%</b> [30-44%] <i>36-59%</i>	<b>62%</b> [47-77%] <i>7-52%</i>	<b>28%</b> [20-37%] <i>8-67%</i>
High Risk HPV type	<b>47%</b> [39-55%] <i>29-41%</i>	<b>71%</b> [57-85%] <i>25-84%</i>	<b>39%</b> [30-48%] <i>22-33%</i>

- Low Risk types: 6,11,40,42,43,44,54,61,70,72,81
- High Risk types: 16,18,26,31,33,35,39,45,51,52,53,56,58,59,66,68,73,82



# Conclusions

- Self-collection in community settings
  - may have impact on specimen adequacy
- Prevalence estimates are similar
- Wide confidence intervals (small sample)
- **Preliminary results** & further analysis required:
  - How comparable are participants to non-participants?
  - Impact of excluding “Option 2” from analysis



## Next steps

- Consider prevalence of HPV and anal dysplasia in relation to questionnaire data related to risk, HPV vaccine and anal pap testing
- Goal is to inform BC policy and program discussions regarding HPV vaccine and anal dysplasia screening among gay men and other MSM



- [www.mancount.ca](http://www.mancount.ca)
- Mark Gilbert
  - [mark.gilbert@bccdc.ca](mailto:mark.gilbert@bccdc.ca)

