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PRE-EXPOSURE PROPHYLAXIS FOR HIV PREVENTION: A COMMUNITY- BASED APPROACH TO INCREASED AWARENESS AMONG VERMONT PRIMARY CARE PROVIDERS

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Family Medicine Rotation, R5, October-November 2015

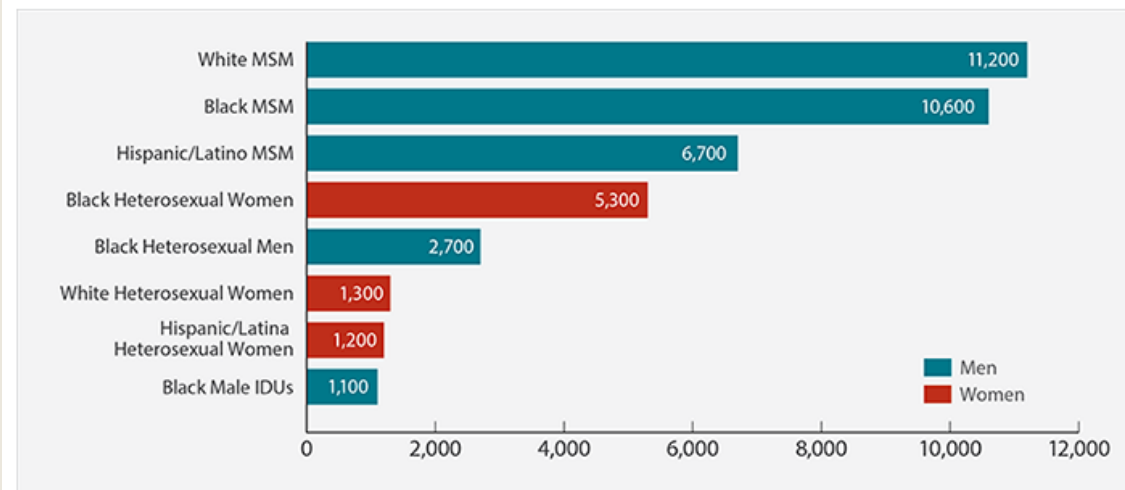
Michael Upton, MD (Psychiatry, UVM College of Medicine)

Marian Bouchard, MD and Jeffrey Wulfman, MD – FM Preceptors (Bristol, VT -
Mountain Health Center)

What's the problem?

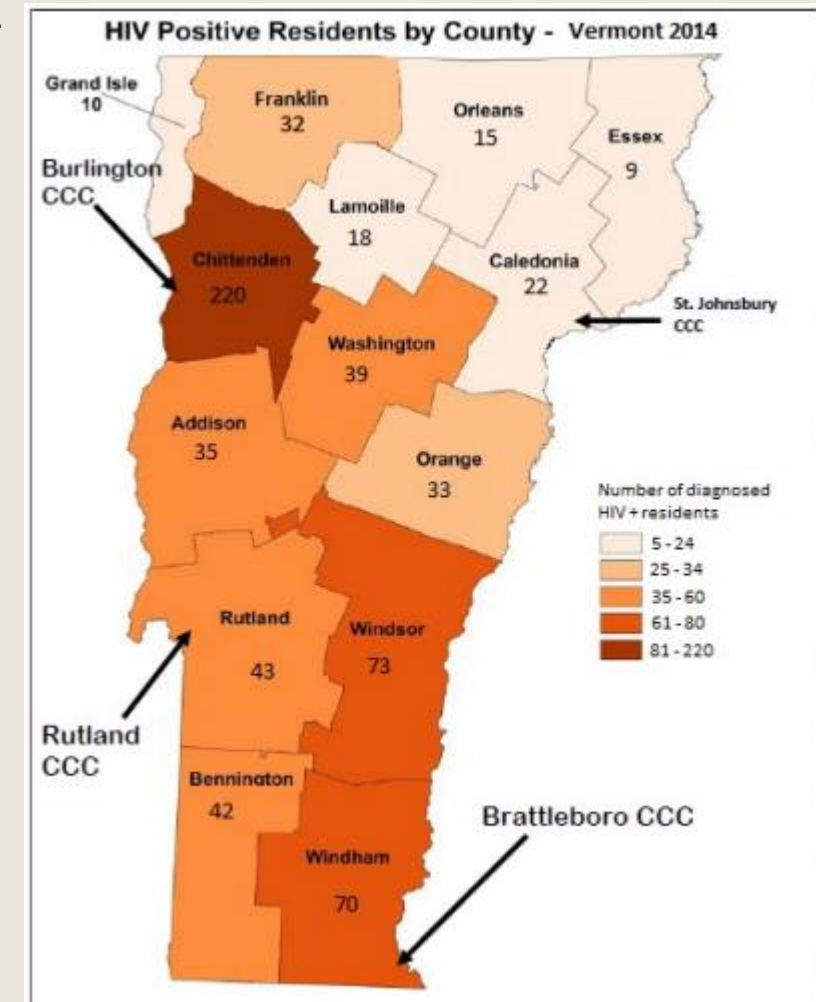
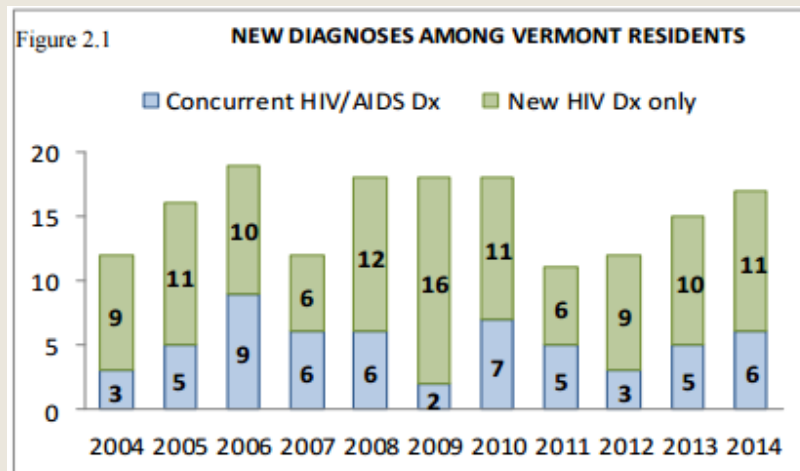
- >1.2 million Americans are living with HIV and nearly 1 in 8 (12.8%) are unaware of their status.
- Nationally, incidence has been consistently around 50,000 new infections per year with the men who have sex with men (MSM) population carrying the largest burden. **25% of new infections are among youth (13-24yo), many of whom don't know they're infected and can unknowingly pass the virus on to others**
 - MSM population represents about 4% of the total US population but they accounted for **78% of new HIV infections among men in 2010.**
 - 2012 CDC survey demonstrated that from 2005-2011, the number of gay men reporting sex without barrier protection rose by 20%.

Figure 1: Estimated New HIV Infections in the United States, 2010, for the Most Affected Subpopulations



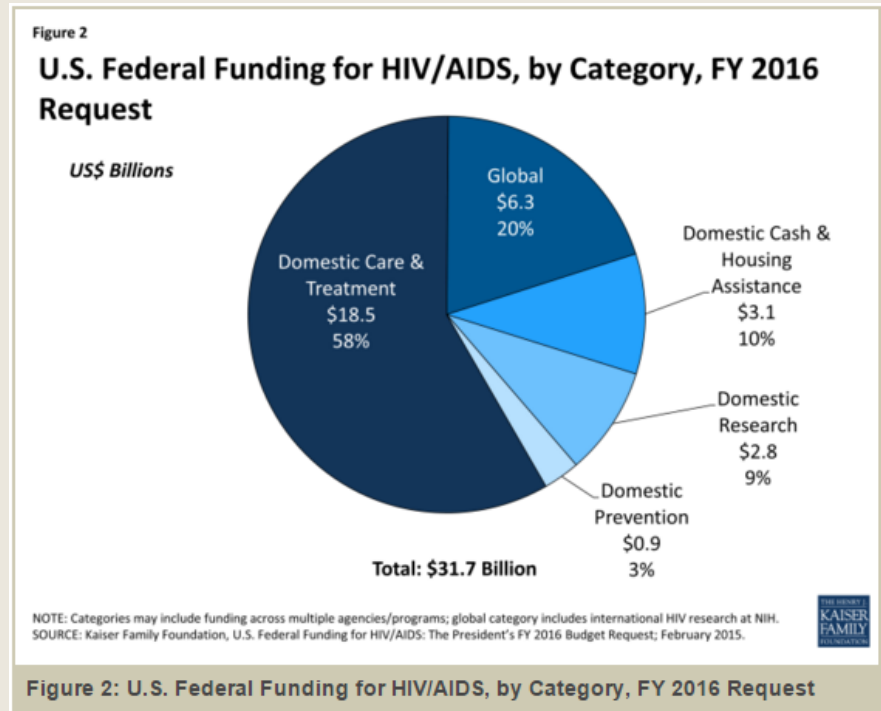
What's the problem like in Vermont?

- Over the past 10 years, new diagnoses have ranged from 11-19 per year
- VT Department of Health: 670 HIV+ Vermonters
 - Estimated to be closer to 800 HIV+ individuals when including those who are likely unaware of their status.
 - 56% fall into the MSM population.
- In 2012, a pre-exposure prophylaxis (PrEP) medication, Truvada, was FDA approved for HIV prevention. Despite this and clear evidence of its prophylactic effect from multiple clinical trials, **community and provider awareness remains limited in Vermont** with a most recent estimate of only 9 providers, not including Planned Parenthood offices, who have actively prescribed PrEP.



Public Health Costs of HIV/AIDS

- US 2016 federal budget request included **\$31.7 billion dollars** for combined domestic and global HIV efforts, with domestic funding estimated at \$25.3 billion. This represents a 3.1% increase from the 2015 federal budget.
 - Largest portion is for health care services & treatment for HIV+ individuals (\$18.5 billion)
 - Smallest portion is for domestic HIV prevention, totaling \$940 million, which has remained largely unchanged over the past 6 years in the federal budget.
- **Estimated lifetime costs for a new, early diagnosis of HIV infection is \$400,000.**
- VT Medicaid annual coverage for 300 HIV/AIDS patients in 2011 exceeded \$3.6 million dollars.



Community Perspective on Issue

- **Michael Upton, MD, Psychiatry, UVM College of Medicine**

- "As a former board chair at the Vermont Pride Center and an out gay physician in Vermont, I have been asked many times about how young gay men can get this medication. At the UVM Student Health Services, together with a primary care provider, we were able in 2 months to provide adequate training so that all of the staff at student health were expected to be able and willing to prescribe PrEP and word quickly spread amongst the gay men at risk on the UVM campus. Education and encouragement of providers works!"

- **Peter Jacobsen, Executive Director of Vermont Cares**

- "Vermont could have a much greater impact on reducing new HIV infections if Truvada as PrEP were more widely understood and prescribed. We've seen strong public health results in other cities and states. Vermont can do the same to keep people negative."

Intervention and Methodology

■ Intervention

Development of a informative PowerPoint about Truvada, which will be presented throughout the state at primary care offices to increase provider awareness and provide education about this intervention. Topics of discussion include the research supporting this pre-exposure prophylaxis, the appropriate patient populations that could benefit from this intervention, the side effects, provider and patient responsibilities, as well as addressing common national, and Vermont specific, barriers to prescribing.

■ Methodology

Literature searches were conducted to evaluate and understand the clinical trials that have been done to date that support Truvada as a viable pre-exposure prophylactic medication for HIV prevention. Resources, such as the CDC and Vermont Department of Health, were used to: understand national recommendations for populations that would most benefit from PrEP; provider and patient responsibilities for prescribing and taking Truvada and the appropriate follow-up visits. Interviews were conducted with local Vermonters who have been part of the HIV/AIDS coalition, such as with VT Cares, to discuss the role of PrEP in Vermont and how increased awareness from providers around the state falls in line with current campaigns geared at reducing the annual HIV incidence in Vermont.

Future Results and Response Data

- Qualitative results from this public health intervention will largely be observational in terms of the types of questions and concerns received from the PCP's.
- Development of a pre- and post-intervention questionnaire to evaluate provider comfort surrounding PrEP and identifying at risk patients.
- Over the **next few years**, we could begin to see if this intervention has any quantitative impacts by measuring:
 - the number of prescriptions for PrEP,
 - the number of providers prescribing PrEP,
 - annual incidence of HIV in the state,
 - annual cost for HIV/AIDS-related care.

Evaluation of Effectiveness & Limitations

- The effectiveness of this intervention will largely depend on **providers willingness to engage this educational opportunity** and apply this new information to patients at highest risk for HIV infections.
- Effectiveness can be measured by tracking the number of PrEP prescriptions, the number of providers prescribing in PrEP in Vermont, and by measuring providers understanding of PrEP and comfort with prescribing it before and after the intervention.
- Limitations:
 - Ongoing provider discomfort with taking sexual history and providing risk reduction counseling necessary to prescribe effectively.
 - Low numbers of at risk patients and low infection rate may result in screening for PrEP not being a priority.
 - A single educational intervention may not be enough to motivate providers to screen and treat consistent with CDC guidelines

Recommendations for future interventions

- Promoting further **community awareness** of PrEP
 - On-campus presentations with Q&A's, informational pamphlets at campus student health centers and primary care offices, collaboration with community organizations, such as VT Cares and the Pride Center
- Webinar series to promote even more awareness and education about PrEP
- Coordination between PCP's and infectious disease specialists to ensure that the most up to date recommendations are being delivered to patients

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