

## SECTION 3: PRIORITIZATION OF TARGET POPULATIONS

For the purpose of prioritizing target populations, the Vermont Community Planning Group used a model suggested by guidance from the Academy for Educational Development, *Setting HIV Prevention Priorities: A Guide for Community Planning Groups*. It is a seven-step process:

- 1) Identify target populations
- 2) Determine factors to use for priority setting
- 3) Weight factors
- 4) Rate target populations using factors
- 5) Score target populations: rating x weight
- 6) Rank target populations (add scores)
- 7) Review rankings and prioritize target populations

The CPG used a consensus model for decision-making wherever rating or scoring was done. All conclusions were the result of full group agreement amongst those voting members who were present.

A description of each step is included below.

### **Step 1) Identify target populations**

In accordance with CDC guidance, the Vermont CPG agreed in 2004 that HIV prevention for people living with HIV/AIDS would be Vermont's top prevention priority, and would recommend that the Vermont Department of Health increase its existing level of funding for Prevention for Positives efforts.

For the purposes of further prioritizing target populations in Vermont, the CPG also agreed to continue using the existing, behaviorally-based categories named in the previous (2001) Comprehensive Plan: Injection Drug Users (IDU); Men who have Sex with Men (MSM); and People at Increased Risk through Heterosexual Transmission (Heterosexual).

Therefore, Vermont's priority populations are as follows:

**Top priority:**

- People Living with HIV/AIDS (PLWHA) who are:
  - Men Who Have Sex with Men (MSM)
  - Heterosexuals at Increased Risk
  - People Who Inject Drugs (IDU)

**Additional Populations, to be Prioritized:**

- Men Who Have Sex With Men (MSM)
- Heterosexuals at Increased Risk. This group includes:
  - Men, Women and Youth who:
    - are partners of people who are HIV+
    - are partners of people who are injection drug users
    - are partners of men who have sex with men
    - are people of color (*including people who are Black/African American, Hispanic/Latino/Latina, Asian/Pacific Islander, American Indian/Alaska Native, and other people of color*)
    - report sexually transmitted infections (STIs) and/or unwanted pregnancy
    - are incarcerated/juvenile offenders
    - are homeless
  - Women and Youth who:
    - are dealing with, or have a history of violence or abuse (*including domestic violence, sexual assault, emotional or physical abuse*)
    - seek treatment for substance abuse
    - live at or below the poverty line
    - are dealing with mental illness
    - are sex workers and/or trade sex for resources.
  - Youth who are:
    - runaway, "throwaway," emancipated, abandoned, medically indigent, in foster or SRS care, out of school, and/or otherwise disconnected from traditional systems
    - developmentally disabled
- People Who Inject Drugs (IDU)

**Step 2) Determine factors to use for priority setting**  
- and -  
**Step 3) Weight factors**

The CPG took three things into account when discussing and ultimately choosing the factors to be used in this step:

- Academy for Educational Development guidance (*Setting HIV Prevention Priorities: A Guide for Community Planning Groups*)
- Factors used by the Vermont CPG in 2001
- Factors used by CPGs from other jurisdictions

Once the CPG decided upon five factors to be used for rating the target populations, the group then determined relative weights to be assigned to each factor, for scoring purposes. This was done by individual balloting among CPG members. The results were as follows:

<u>Factor</u>	<u>Weight</u>
Barriers to reaching the population	8
Magnitude HIV/AIDS within the population	7
Riskiness of behaviors	7
Markers of risk behavior	7
Size of population	6

**Step 4) Rate target populations using factors**

The CPG rated each target population (IDU, MSM, Heterosexual) on each of the five named factors, using straightforward data where possible; and a combined process of group discussion and individual balloting where more qualitative and/or anecdotal information was the most relevant to a given factor.

Some factors were comprised of separately rated/scored pieces, in which case a sub-weighting process was used toward a final result. See below for details.

Once populations were rated on a given factor, the population to receive the highest rating was then assigned a score of 10 for that factor, and the two remaining

populations were assigned a proportionally lower score, from 1 to 9, determined by their relative rating to that of the top-rated population.

Details of the rating process were as follows:

**Factor 1: Barriers to reaching the population (weight = 8)**

DEFINITION: This factor was defined by five components:

- 1) Socioeconomic and/or cultural barriers (*Including poverty, education, homelessness, language and literacy, race/ethnicity, sexual orientation, sex/gender*)
- 2) Lack of HIV prevention services available to the population (*e.g., lack of services throughout the state; lack of specific interventions available to the population*)
- 3) Policy/Legislative barriers (*Laws and policies that impact HIV prevention for the population*)
- 4) Population-specific stigma (*Societal phobias and “isms” directed against the population; subsequent lack of will within communities to meet the needs of that population*)
- 5) Population-specific barriers (*Internal barriers; things that keep members of the population from advocating for themselves for risk reduction/safer sex/safer injection, such as: population norms against preventive behavior; lack of social networks; apathy or lack of risk awareness within the population.*)

PROCESS: Following a CPG discussion of each of these elements, the target populations were sub-scored by individual balloting on a 1-3 scale for each of the above-named components. The total points earned in this process were:

	MSM	HETERO	IDU
Total points earned	166	168	223
Relative rating <i>highest point total = 10; others rated accordingly</i>	.753 rounds to 8	.744 rounds to 7	10

## Factor 2: Magnitude of HIV/AIDS within the population (weight = 7)

DEFINITION: This factor was defined by three components:

- 1) HIV/AIDS prevalence as of December 2002
- 2) Comparison of newly diagnosed AIDS cases: 1997-99 compared to 2000-02.
- 3) Percentage of newly diagnosed HIV cases, 2000-02

PROCESS: The CPG agreed to look at each of the above-named epidemiological sub-factors and assign sub-weights to each by individual balloting. (Note: Because HIV reporting is a relatively recent component of surveillance in Vermont (as of 2000), the CPG chose to continue looking at Vermont AIDS case data as well, which has been tracked for a much greater length of time.)

After sub-weighting these three components, the rating process for each population was a matter of straightforward data incorporation. The entire calculation process is reflected in the following table:

	MSM	HETERO	IDU
Percentage of newly diagnosed HIV cases 2000-02	55	14	8
Sub-score <i>highest rate = 10; others scored relatively</i>	10	2.54 rounds to 3	1.45 rounds to 1
x Sub-weight	10	10	10
= Sub-total	100	30	10

	MSM	HETERO	IDU
HIV/AIDS prevalence as of December 2002 <i>Percentage of those living with HIV or AIDS</i>	54	12	16
Sub-score <i>highest rate = 10; others scored relatively</i>	10	.22 rounds to 2	.29 rounds to 3
x Sub-weight	8	8	8
= Sub-total	80	16	24

Comparison of newly diagnosed AIDS cases:  
 1997-99 and 2000-02

	MSM	HETERO	IDU
Percentage of newly diagnosed AIDS cases, 97-99	46	7	17
Relative score	10	.152 rounds to 2	.36 rounds to 4
Percentage of newly diagnosed AIDS cases, 00-02	66	15	6
Change from 1997-99 to 2000-02 <i>Higher # divided by lower #</i>	Increase: +1.43 rounds to +1	Increase +2.14 rounds to +2	Decrease: -2.8 rounds to -3
Relative score +/- movement score	10+1 =11	2+2 = 4	4-3 = 1
Sub-score <i>highest rate = 10; others scored accordingly</i>	10	3.6 rounds to 4	.09 rounds to 1
x Sub-weight	6	6	6
= Sub-total	60	24	6

**TABULATION FOR FACTOR 2:  
 MAGNITUDE OF HIV/AIDS WITHIN THE POPULATION**

	MSM	HETERO	IDU
Newly diagnosed HIV cases, 2000-02 Sub-total =	100	30	10
HIV/AIDS prevalence as of December 2002 <i>Percentage of those living with HIV or AIDS</i> Sub-total =	80	16	24
Comparison of newly diagnosed AIDS cases: 1997-99 compared to 2000-02 Sub-total =	60	24	6
Total points =	240	70	40
<i>highest rate = 10; others scored accordingly</i> Final magnitude rating =	10	2.9 rounds to 3	1.6 rounds to 2

### Factor 3: Riskiness of behaviors (weight = 7)

DEFINITION: The relative likelihood of HIV transmission from an infected partner to another person during the engagement of specific risk behaviors.

DISCUSSION: The CPG agreed to use data provided by the Vermont Department of Health, comparing the relative risk of unprotected receptive anal intercourse with an HIV-infected partner; unprotected receptive vaginal intercourse with an HIV-infected partner; and sharing injection equipment with an HIV-infected partner. Each of these behaviors were “assigned” to the corresponding target population (MSM, Heterosexual, IDU) with one caveat:

Because unprotected anal intercourse (UAI) is statistically more risky than unprotected vaginal intercourse, and because some heterosexually-identified adults do engage in this behavior with opposite-sex partners, the CPG took into account behavioral data indicating the frequency of UAI among heterosexually-identified adults. This frequency was factored into the final considerations for scoring purposes, as detailed below.

#### MSM Unprotected Anal Intercourse

- 1 – 7 % Receptive Anal Intercourse (RAI) (CAPS data)
- .1 – 3 % Receptive Anal Intercourse (MMWR, 1998)

**SCORE:  $((1 + 7) / 2) + ((.1 - 3) / 2)) / 2 = 2.78\% \text{ or } .0278$**

(Took averages of both Receptive Anal Intercourse Ranges from CAPS and MMWR and then averaged those together.)

#### Heterosexual Unprotected Sex

- 1 -7 % Receptive Anal Intercourse (RAI) (Center for AIDS Prevention Studies (CAPS) data)
- .06 – 1% Receptive Vaginal Intercourse (RVI) (CAPS data)
- .03- 0.1% Insertive Vaginal Intercourse (IVI) (CAPS data)
- .1 - .2% Receptive Vaginal Intercourse (MMWR, 1998)

SCORE:  $((.06 + 1) / 2) + ((.1 + .2) / 2)) / 2 = .34\% \text{ or } .0034$   
 $(17.6\% * .0278) = .489\% \text{ or } .00489$

$.0034 + .00489 = .00829 \text{ or } .829\%$

(Took averages of Receptive Vaginal Intercourse from CAPS data and averages from Receptive Vaginal Intercourse from the MMWR data and then averaged those together. Receptive Anal Intercourse was multiplied by the total percent of men and women

recruited at STD clinics in the 2001 HITS Surveys who reported Anal Intercourse with primary partner).

### IDU Needle Sharing Risks

- .7 - 1% Needle Sharing Events (NSE) (CAPS data)
- .67 % Needle Sharing Event (MMWR, 1998)

SCORE:  $((.7 + 1) / 2) + .67 / 2 = .76 \% \text{ or } .0076$

(Took average of CAPS data range and averaged it with the MMWR data)

	<b>MSM</b>	<b>Heterosexuals</b>	<b>IDU</b>
<b>Scores:</b>	.0278	.00829	.0076
<b>1 – 10 Scores:</b>	10	2.98	2.7
<b>Rounded rating:</b>	10	3	3

### Data Sources:

- Transmission Rates, Co-Factors for HIV Transmission, and Sexual Assault Provincial HIV Prevalence: Slide Show Presentation for Indications for and Use of Post-Exposure Prophylaxis (PEP) Following Sexual Assault: A Two-Day Workshop September 2002 Michelle Roland, MD, Ian Sanne, MD, Linda-Gail Bekker, MD <http://hivinsite.ucsf.edu/InSite?page=pr-rr-07-01-03>
- MMWR, 1998 47 (RR17); 1-14 Management of Possible Sexual, Injecting-Drug-Use, or Other Nonoccupational Exposure to HIV, Including Considerations Related to Antiretroviral Therapy Public Health Service Statement [www.cdc.gov/mmwr/preview/mmwrhtml/0054952.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/0054952.htm)
- National HITS Data, 2001, CDC
- This data is also substantiated in the document: The Risk of HIV-1 Transmission by Type of Exposure (Communicable Disease Prevention & Control), [www.cdpc.com/s6.htm](http://www.cdpc.com/s6.htm)

### Factor 4: Markers of risk behavior (weight = 7)

**DEFINITION:** Indications of engagement by members of the target population in specific risk behaviors directly linked to HIV transmission, i.e., unprotected sex, needle sharing.

**DISCUSSION:** The CPG agreed to look at available Vermont-specific data as well as nationally-based statistics for each of the target populations, and to calculate an average between the two. That average would then be the basis for rating and scoring the populations.

**INFORMATION SOURCES:** The Vermont HIV Testing Survey (HITS); the Vermont Behavioral Risk Factor Surveillance System (BRFSS) 2001 data; and the HIV/AIDS Special Surveillance Report from the Centers for Disease Control and Prevention.

MSM reporting unprotected receptive anal intercourse with a non-primary partner:

Vermont HITS survey: 40%  
 HIV/AIDS Special Surveillance Report: 40%

Average: 40%

Men and women reporting no barrier use during vaginal intercourse with a non-primary partner:

Vermont BRFSS – Men: 38%  
 Vermont BRFSS – Women: 29%  
 HIV/AIDS Special Surveillance Report – Men: 70%  
 HIV/AIDS Special Surveillance Report – Women: 59%

Average: 49%

IDUs reporting needle sharing:

Vermont HITS survey: 39%  
 HIV/AIDS Special Surveillance Report: 43%

Average: 41%

#### Markers of Risk Behavior – Final Rating

	MSM	HETERO	IDU
Average	40	49	41
Relative rating <i>highest point total = 10; others rated accordingly</i>	8	10	8

## **Factor 5: Size of population (weight = 6)**

**DEFINITION:** Estimated number of people in Vermont within the identified target population (IDU, MSM, Heterosexuals at increased risk)

**DISCUSSION:** The CPG took a variety of approaches to estimating population sizes, and agreed that the population with the largest estimated size would be given a rating of 10; and the other two populations would be rated with a relative number on the 1-10 scale.

### **MSM**

For the population of MSM in Vermont, the CPG looked at a variety of informational resources: the Vermont 2001 BRFSS (Behavioral Risk Factor Surveillance System); the Vermont YRBS (Youth Risk Behavior Survey) from 1997, 1999, and 2001; the population estimate provided to the CPG by the Vermont Department of Health for use in the 2001 Comprehensive Plan; and the going norm among Community Based Organizations, who use an estimate of 5% when estimating MSM population.

All of the statistics gathered were averaged to an estimate of 5.8% of the total population. Measured against the Vermont population of 608,827 (2000 Census), that translates into an estimated population size of 35,311.

### **HETEROSEXUAL**

This was, by far, the most complex category for estimating population size. The CPG used a variety of informational resources to try and “count” the number of people within each of the sub-categories in the CPG’s definition of People at Increased Risk through Heterosexual Transmission.

The following numbers are based on an overall estimate that there are 467,989 men, women, and youth over age twelve in Vermont. This number comes from subtracting 7.5% from the overall Vermont population (which accounts for an estimated number of non-heterosexual people); and subtracting an additional 16.9% to account for the number of children under age thirteen, as this population definition only includes youth aged 13 and older.

Of those 467,989 people, 51% are estimated to be women, and 16.7% are estimated to be youth between the ages of 13 and 24, based on 2000 Census data. Another way of expressing these numbers:

Men/Women/Youth\*: 467,989  
Women/Youth\*: 284,960  
Youth\*: 94,048

*\*For the purposes of this document, the Youth category includes ages 13-24 only.*

Estimating the population of Heterosexual at Increased Risk:

Sub-category	Estimate	Source/Explanation
Men, women and youth who are:		
People who are HIV+	136	VT HIV/AIDS report
Partners of people who are HIV+	136	Estimate a duplicate number to PWA
Partners of people who are injection drug users	1800	Estimate a duplicate number to estimated IDU population size; source: VT Office of Alcohol and Drug Abuse Programs
Partners of MSM	?	Unknown; no estimate
Reported STIs and/or unwanted pregnancy	1149	VT. Dept. of Health (healthyvermonters.info): 2003 chlamydia, syphilis, gonorrhea;
Incarcerated/Juvenile offenders	2043	VT Department of Corrections
Homeless	889	VT housing data 2002 (0.19%)
Women and youth who are:		
Dealing with or have history of violence/abuse	3704	VT Network Against Domestic Violence/Sexual Abuse (2002) (1.3%)
Seek treatment for substance abuse	4017	ADAP (2002) (1.41%)
People of color*	20631	2000 Census data (7.24%)
Living at or below poverty line	28182	2000 Census data (9.89%)
Dealing with mental illness	13877	VT Dept. of Mental Health (4.87%)
Sex workers/trade sex for resources	?	Unknown; no estimate
Youth who are:		
Runaway, throwaway, Social and Rehabilitation Services (SRS), etc.	1470	www.state.vt.us/SRS (average daily figure in 2003)
Developmentally disabled	889	VT Developmental Services 2004 Annual Report # served in 2003
<b>TOTAL</b>	<b>78,923</b>	

Notes on the above:

- \*People of Color: When the calculations detailed on this page were made in June 2004, the population definition of People at Increased Risk through Heterosexual Transmission included women and youth of color, but not adult men of color. The population definition was amended in August 2004 to include adult men of color, and the resulting funding allocations were adjusted, as detailed at the end of this section.
- Many of the sub-categories within the Heterosexual at Increased Risk population overlap with one another, which could result in over-counting (for example, some people who report STIs may also be living below the poverty level; some people

who are homeless may also be dealing with mental illness, etc.). At the same time, however, many people in this category are not accounted for here, including partners of MSM; people with non-reportable STIs; sex workers; and runaway youth. To whatever extent these factors may or may not cancel each other out, the CPG accepted the above-listed calculations in the absence of a more precise system.

**IDU**

For the population of injection drug users in Vermont, the CPG accepted an estimate of 1,800 from the Vermont Department of Health’s Office of Alcohol and Drug Abuse Programs. This estimate is widely accepted and used around the state by organizations who serve the needs of injection drug users.

**POPULATION SIZE: Final rating**

	MSM	HETERO	IDU
Estimated population size	35,311	78,923	1,813
Relative rating <i>highest point total = 10; others rated accordingly</i>	4	10	1

**Step 5) Score target populations: rating x weight**  
 - and -  
**Step 6) Rank target populations (add scores)**  
 - and -  
**Step 7) Review rankings and prioritize target populations**

<b>FACTOR</b>	<b>WEIGHT</b>	<b>MSM</b>		<b>HETERO</b>		<b>IDU</b>	
		rating	weight x rating	rating	weight x rating	rating	weight x rating
<b>Barriers to Reaching Population</b>	8	7	56	8	64	10	80
<b>Magnitude of HIV/AIDS within the population</b>	7	10	70	3	21	2	14
<b>Riskiness of behaviors</b>	7	10	70	3	21	3	21
<b>Markers of risk behavior</b>	7	8	56	10	70	8	56
<b>Size of population</b>	6	4	24	10	60	1	6
<b>TOTAL SCORE</b>			<b>276</b>		<b>236</b>		<b>177</b>

Each score was determined as a percentage of the total points earned.

MSM = 276  
 Heterosexual = 236  
 IDU = 177

Total points earned: 689

Therefore:

MSM (276) earned 40% of total points

Hetero (236) earned 34% of total points

IDU (177 points) earned 26% of total points

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**August 2004 Amendment**

At the August 2004 CPG meeting, the CPG listened to and discussed concerns from the community about the population definition for People at Increased Risk through Heterosexual Transmission. The CPG then agreed to amend the population definition to include adult men of color. Previously, the definition had only included women and youth of color.

After further discussion, the CPG also agreed that given the lack of available time in the planning year, they would not re-calculate and score all three target populations. Instead, the CPG charged the Vermont Department of Health HIV/AIDS program with re-allocating up to 2% of HIV prevention funds from the MSM and IDU populations to the Heterosexual population, to allow for the now-expanded Heterosexual population definition.

Accordingly, the CPG's final recommendations for Target Population Prioritization are as follows:

<b>RANKED PRIORITY POPULATIONS</b>	<b>FUNDING ALLOCATION RECOMMENDATIONS</b>
1) People Living with HIV/AIDS (PLWHA) who are: <ul style="list-style-type: none"> <li>• Men Who Have Sex with Men (MSM)</li> <li>• Heterosexuals at Increased Risk</li> <li>• People Who Inject Drugs (IDU)</li> </ul>	CPG recommends that the Vermont Department of Health increase its existing level of funding for Prevention for Positives efforts.  All remaining prevention funds should be allocated as detailed below:
2) Men who have Sex with Men (MSM)	38% of available prevention funds for programs targeting MSM
3) People at Increased Risk through Heterosexual Transmission	36.5% of available prevention funds for programs targeting Heterosexuals at Increased Risk
4) Injection Drug Users (IDU)	25.5% of available prevention funds for programs targeting IDU

**- END OF SECTION 3: PRIORITIZATION OF TARGET POPULATIONS -**