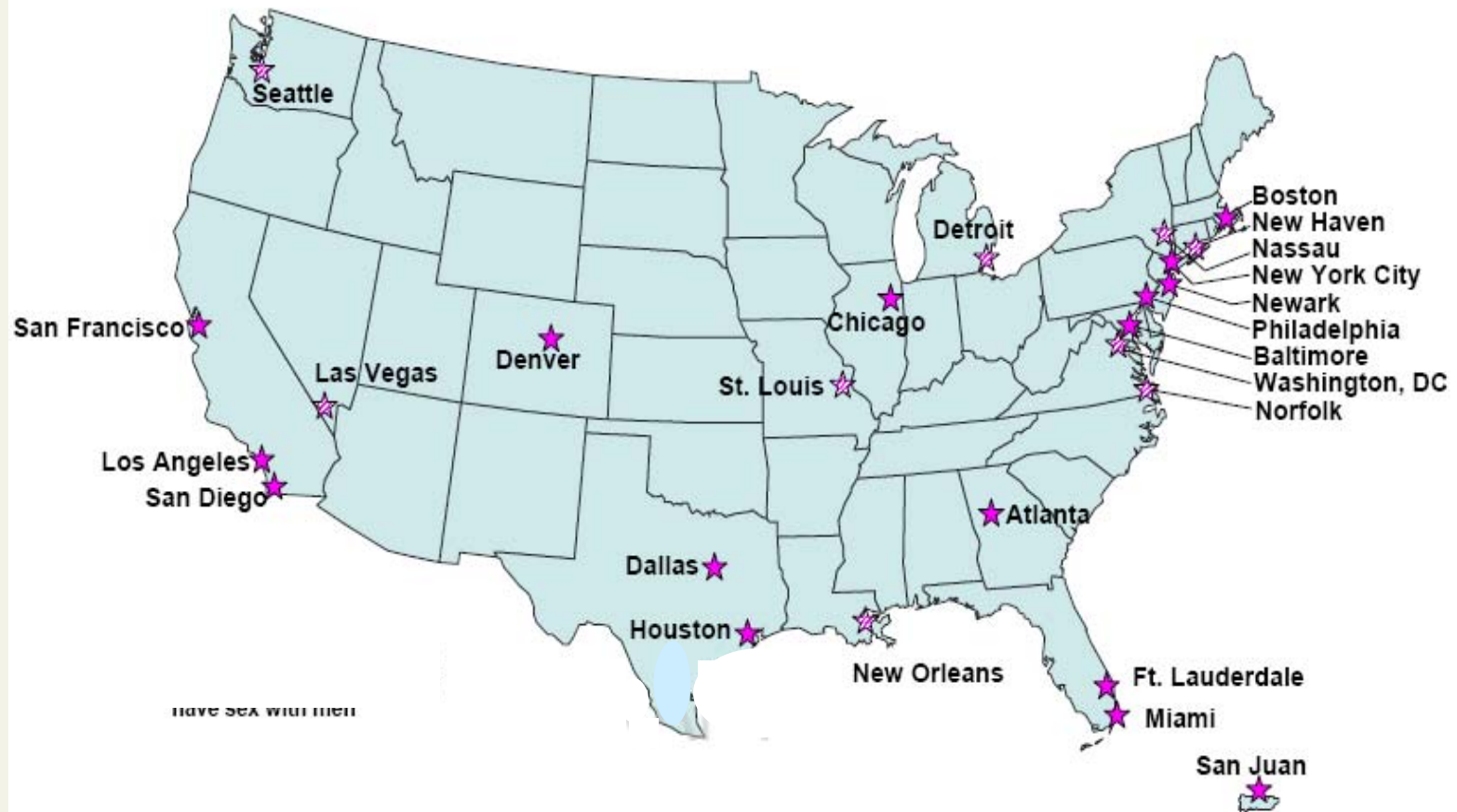


# **National HIV Behavioral Surveillance System for Heterosexuals at Risk for HIV Infection- Implementation of Venue-Based Sampling in Baltimore, Maryland**

**Frangiscos Sifakis, PhD, MPH; Colin Flynn, MSc**

November 5, 2007

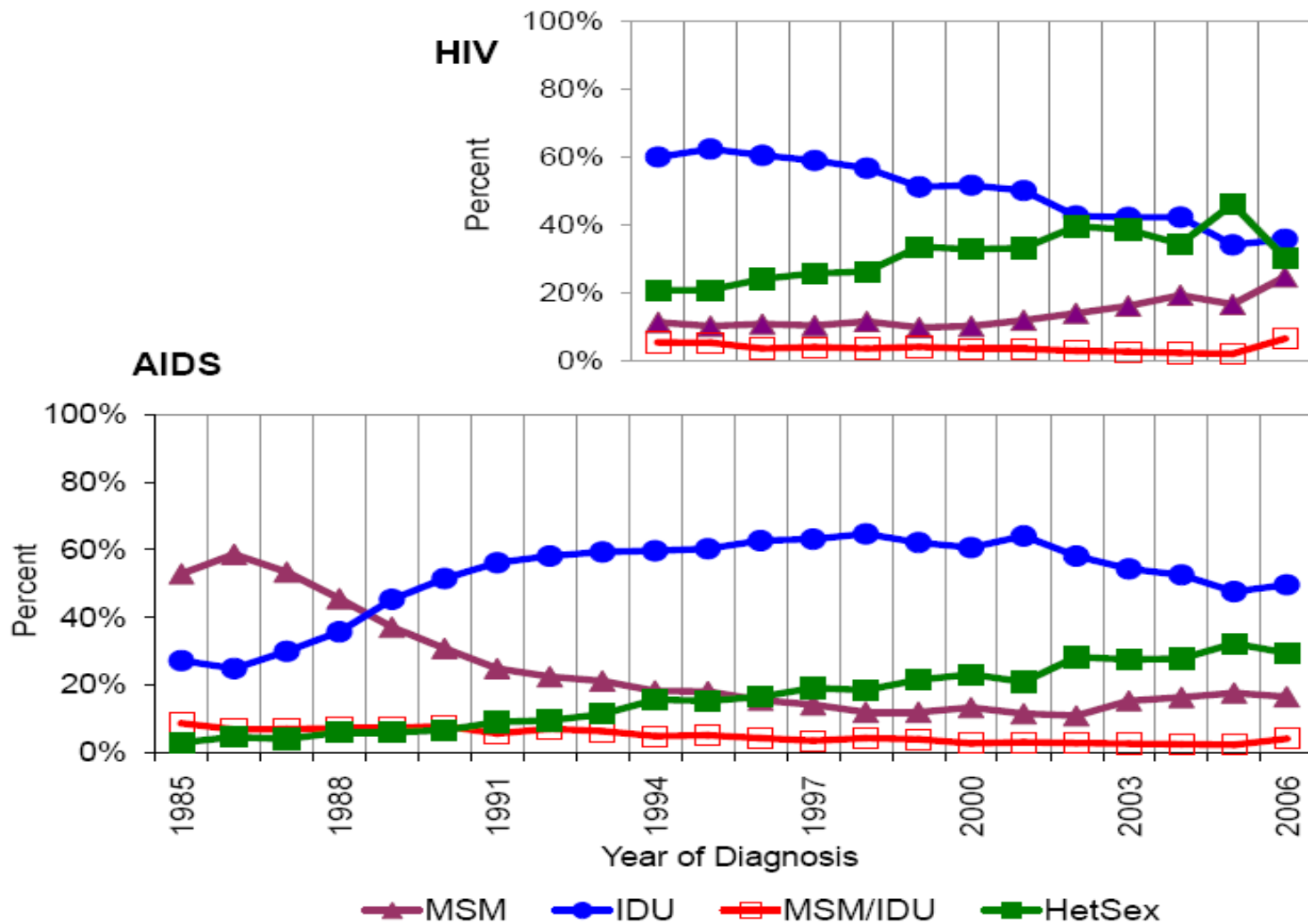
# NHBS Behavioral Survey Sites



# Background - NHBS

- To assess prevalence of and trends in
  - HIV risk behaviors
  - HIV testing behaviors
  - Exposure to and use of prevention services among persons at high risk for infection
  - HIV prevalence and incidence (*NB*- selected sites)
- Target Populations:
  - Men who have sex with men (MSM)
  - Injection drug users (IDU)
  - Heterosexuals (HET) living in areas highly impacted by HIV/AIDS and poverty – Baltimore: VBS site

# Proportions by Exposure Category of Incident Cases during each Calendar Year as Reported through 6/30/07

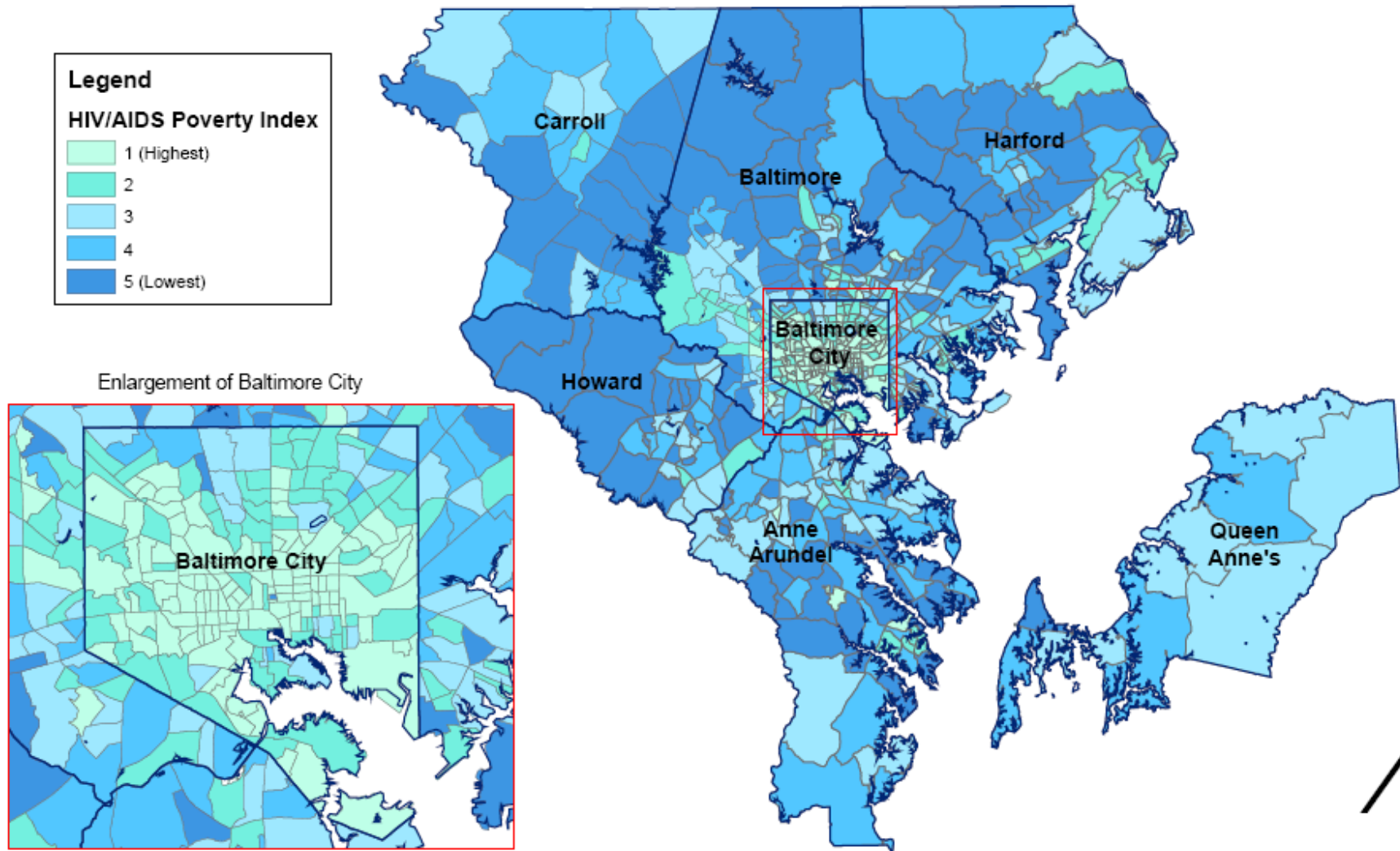


Maryland DHMH - AIDS Administration; BALTIMORE CITY HIV/AIDS  
 EPIDEMIOLOGICAL PROFILE - June 30, 2007

# Identification of the High-Risk Area (HRA)

- Geographic area within MSA with residents at higher odds of HIV infection
- Geo-coded HIV/AIDS surveillance data by census tract in MSA
- Geo-coded 2000 Census poverty data by census tract
- Index calculated based on Standardized Morbidity (HIV/AIDS and poverty) Rates; HRA index = sum of SMRs
- Select a cut-off for the top % of indices in MSA census tracts
  - Exclude tracts with pop. <1,500 and institutions (e.g., hospitals and prisons)

# HIV/AIDS & Poverty Index Values for Baltimore Metropolitan Area by Census Tract - Quintiles

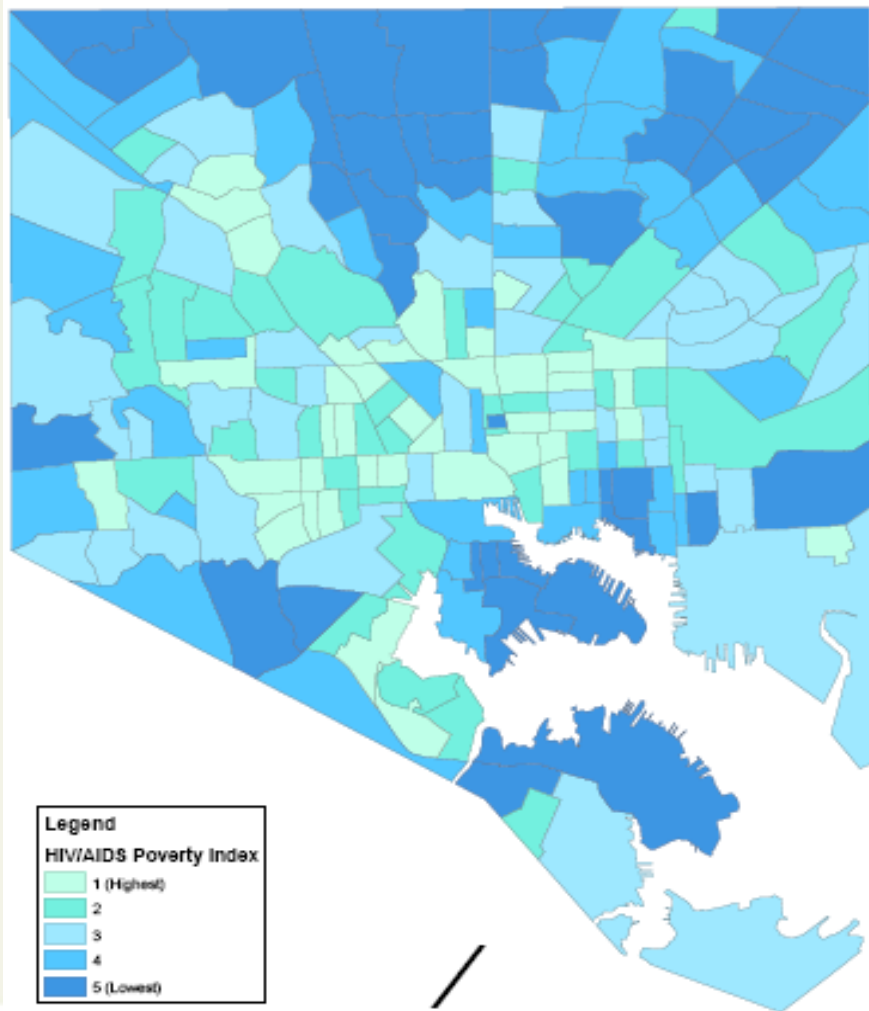


# The Baltimore MSA HRA

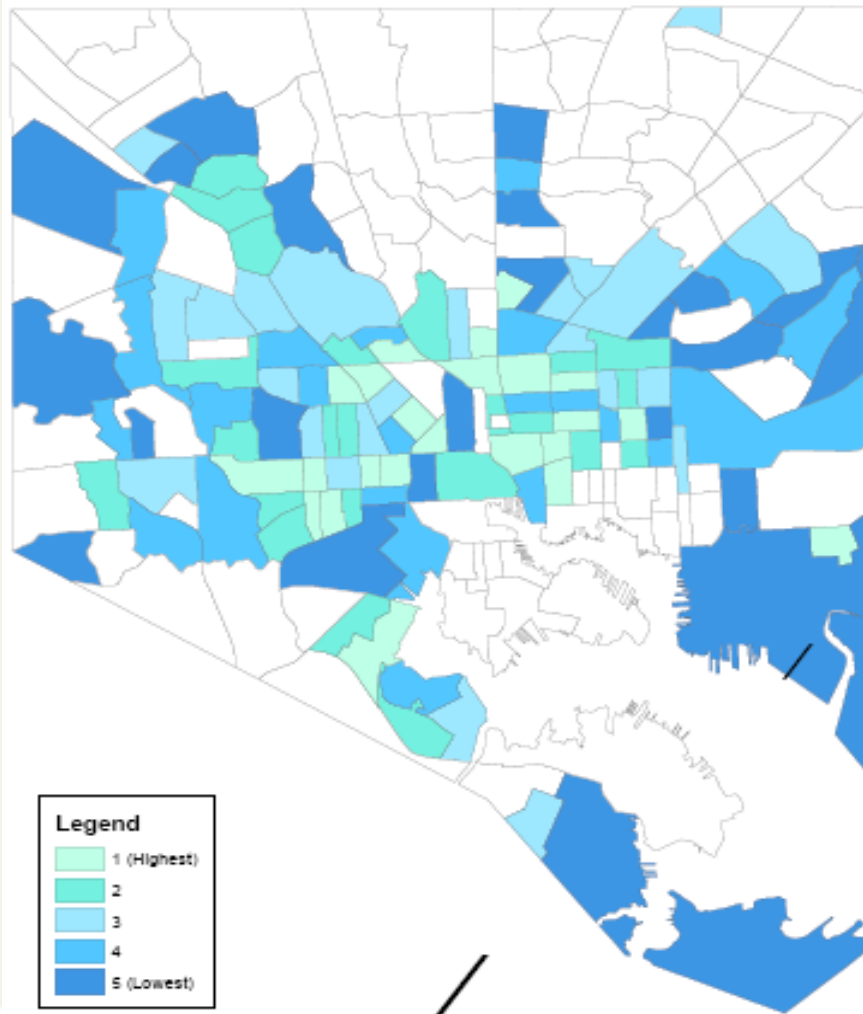
- Cut-off for Baltimore: 20%
- Total of 128 census tracts
  - 118 (92.2%) were in Baltimore City (representing 59% of all 200 census tracts in Baltimore City)
  - 7 (5.5%) were in Baltimore County
  - 3 (2.3%) were in Anne Arundel County
- None were in Carroll, Harford, Howard or Queen Anne Counties
- The 10 census tracts located outside Baltimore City, were ineligible
  - 1 contained a state juvenile justice facility
  - 2 contained state university campuses
  - 1 contained a state mental hospital facility
  - 1 contained a federal office complex
  - 5 were deemed not feasible due to distance

# HIV/AIDS Poverty Index Values for Baltimore City by Census Tract

HIV/AIDS Poverty Index Values for Baltimore City by Census Tract



HIV/AIDS Highest Poverty Index Values for Baltimore City by Census Tract



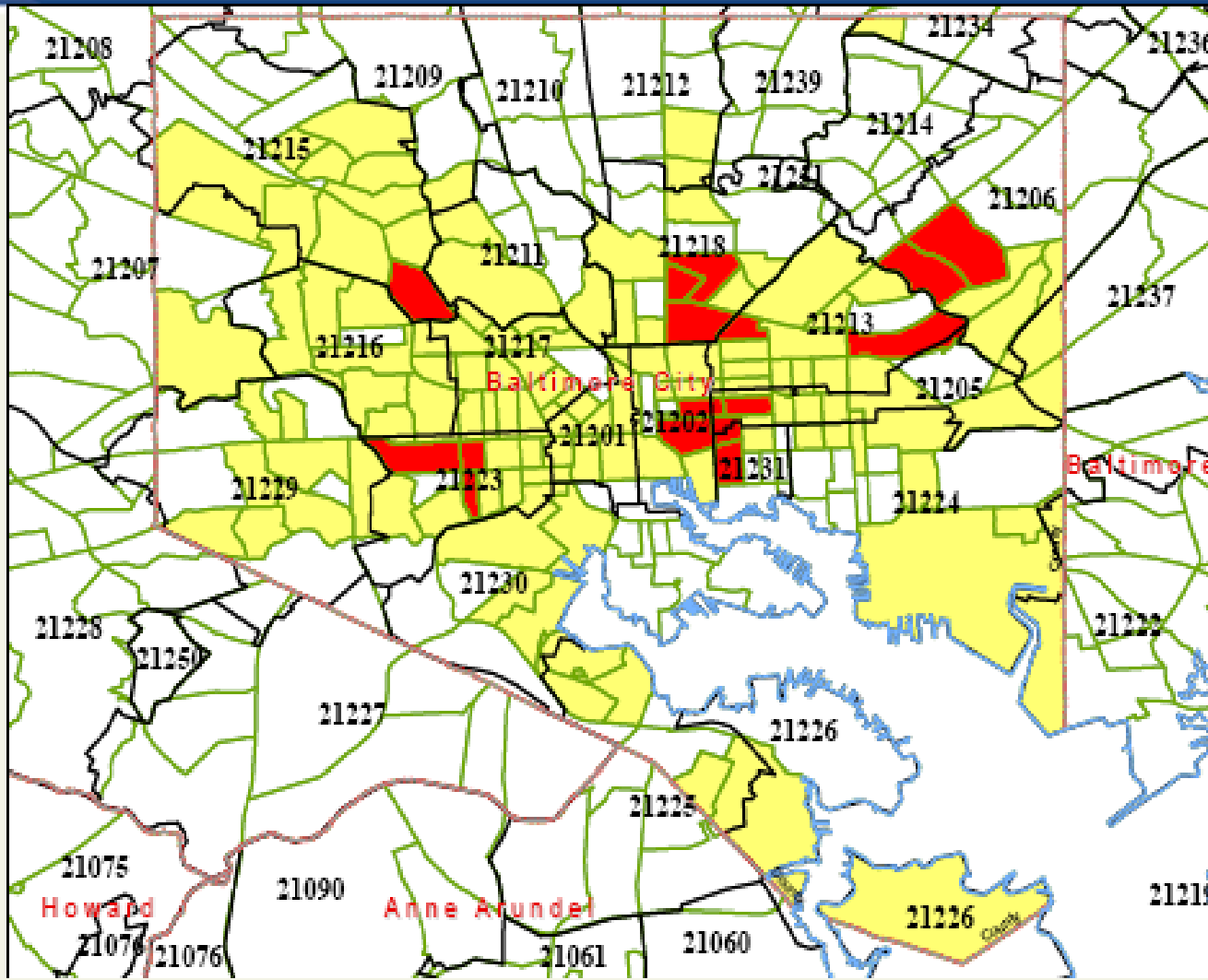




## Identification of Target Census Tracts

- Direct observations of 118 census tracts; eliminating those which demonstrated:
  - a high percentage of abandoned buildings or vacant lots
  - gang activities or drug trade activities
  - negligible pedestrian traffic
  - a predominantly residential setting
  - contained educational institutions
- Of the 118, 15 census tracts remained, clustered in 5 neighborhoods

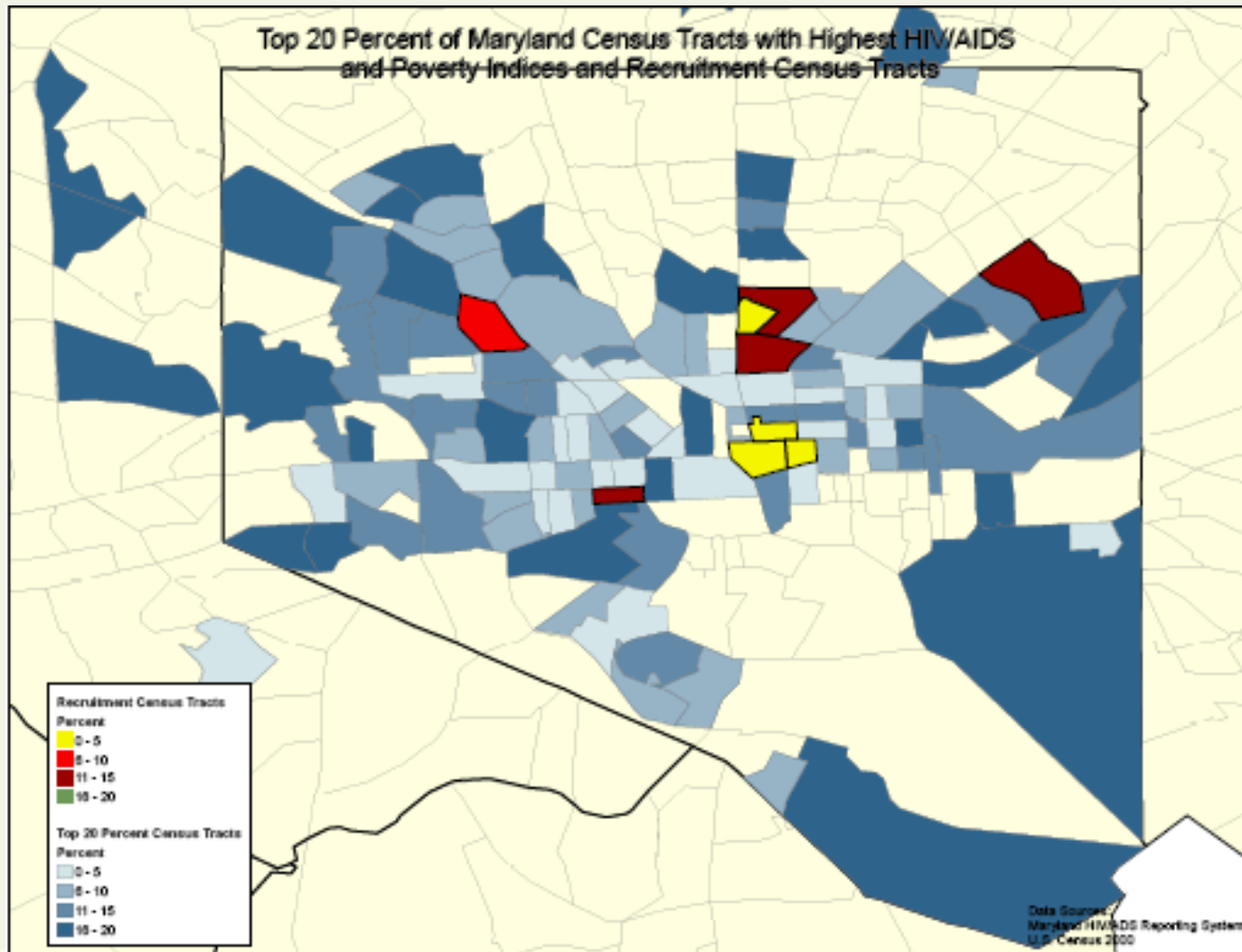
# Identification of Target Census Tracts



# Formative Research

- Focused on the 15 viable census tracks
  - Community-informant interviews
  - Focus groups
  - Venue identification
  - Venue enumeration (Type I & Type II)
  - Logistics; social marketing (i.e., branding)
- Results
  - February to May 2007
  - The 15 census tracks were logistically impossible; reduced to 9
  - Clustered in the following neighborhoods within Baltimore City:
    - Old Town, Greenmount, Sinclair, Mount Clare Junction, and Mondawmin.

# NHBS Recruitment Census Tracts



# Venue Universe

- Total of 115 viable venues/venue groupings, representing 297 individual venues.

Venue Type	Code	N = 115 (%)
Bars	B	8 (6.9)
Cafes/Restaurants	C	14 (12.2)
Dance Clubs	D	0 (0)
Fitness Club/Gymnasium	F	0 (0)
Social Organizations	H	0 (0)
Parks	P	5 (4.3)
Retail Businesses	R	40 (34.8)
Street locations	S	41 (35.6)
Raves and similar events	V	0 (0)
Sex establishments or environments	X	1 (0.9)
Other	Z	6 (5.2)

# VDT Sampling Frame

Formative research identifies public/private venues and days/times of attendance

Venue Code	Number of VDT Periods	Day-Time Periods						
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
A001	2	1 PM - 5 PM			9 AM - 1 PM			
A002	1							11 AM - 3 PM
B001	5		7 PM - 11 PM		9 PM - 11 PM	10 PM - 2 AM	10 PM - 2 AM	2 PM - 6 PM
C001	2			10 AM - 2 PM ----- 2 PM - 6 PM				
C002	1					9 PM - 1 AM		

# Recruitment event calendar

Random selection of Venue and Day-Time pairs monthly

15-20 sampling events (4-hour periods) per month

November 2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6 B001 1PM - 5PM A1: B002 1PM - 5PM A2: D003 2PM - 6PM	7	8	9 E002 7PM - 11PM A1: A002 7PM - 9PM A2: B001 7PM - 11PM	10	11 C005 10PM - 2AM A1: C003 10PM - 2AM A2: E002 11PM - 3AM
12	13	14	15	16	17	18 B004 11PM - 3AM A1: B003 10PM-2AM A2: D004 11PM-3AM
19 D005 3PM - 7PM A1: C001 5PM-9PM A2: S001 4PM-8PM	20	21	22	23	24	25
26	27	28	29	30		

# NHBS-HET Logistics





# Participant Recruitment

- Participant Recruitment
  - Men and women counted at venues and systematically intercepted
  - Eligibility data gathered and enrollment offered to eligibles
  - Escorted to the nearby, modified van for consent, questionnaire administration, HIV counseling, and blood drawing
  - Some appointments to participate later at our fixed location
  - Referral as needed; HIV results appointment within 2 wks



# NHBS-HET Study Participation

- Eligibility
  - Residents of Baltimore MSA
  - 18-50 years of age
  - had vaginal or anal sex with an opposite-sex partner in the past year
  - No prior participation; can complete survey in English or Spanish
- Behavioral Survey
  - Anonymous
  - Informed Consent for Survey and Testing
  - Survey instrument; demographics, medical history, sexual and drug-using behaviors, prior HIV testing, exposure to prevention programs
- Serologic Testing
  - Venipuncture; EIA with WB confirmation; Anonymous
  - HIV Counseling and Referral



# CHALLENGES

- Formative work very important but time-consuming
- Delays in implementation breed management and staff problems
- Security in the field
- “Mobbing” by volunteers, esp. IDU
- Overwhelming need for HIV testing