



HIV STIGMA BURDEN AMONG PEOPLE LIVING WITH DIAGNOSED HIV (PLWDH) IN CALIFORNIA: PREVALENCE BY STIGMA TYPE AND HIGH STIGMA SCORE BY DEMOGRAPHIC, BEHAVIORAL, AND CLINICAL CHARACTERISTICS

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Background

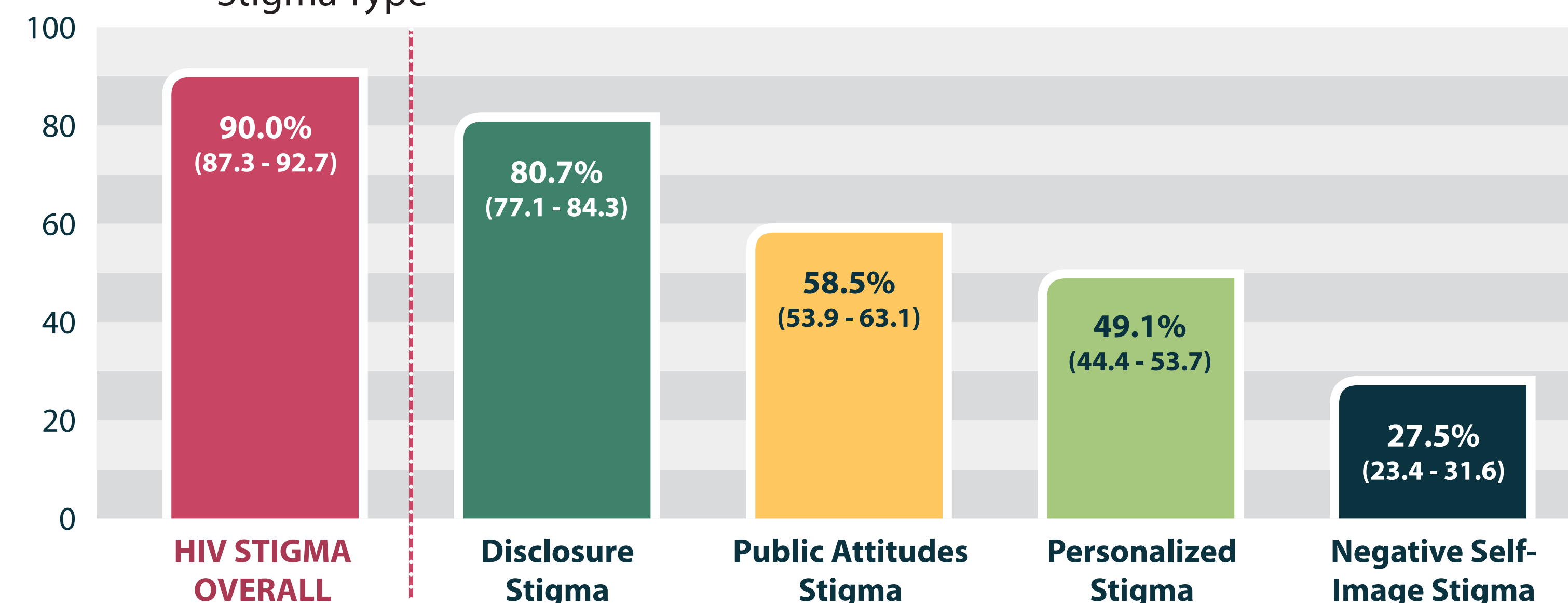
- HIV stigma is...
 - The devaluing of people living with HIV based on their serostatus.
 - Characterized by experiences of discrimination and prejudice, negative self-image, internalized stigma, and fear of disclosure [1].
 - Associated with many adverse clinical, behavioral, and social outcomes among PLWDH [2].
- The ability to measure stigma burden and monitor changes over time is key to evaluating the impact of stigma-reduction activities.
- We sought to estimate the prevalence of HIV stigma and evaluate differences in high HIV stigma score by selected characteristics among PLWDH in California.

Methods

- California (excluding Los Angeles and San Francisco) Medical Monitoring Project (MMP) data collected from 2015-2017.
- 626 participants were interviewed (response rate 42%).
- 584 completed the self-report 10-item HIV-stigma scale [3].
- HIV stigma measures:
 - Any HIV stigma (agreed or strongly agreed with any item) overall and within stigma dimensions: personalized, disclosure, public attitudes, and negative self-image.
 - Median stigma score (range 0-100), interquartile range (IQR).
 - High stigma score (score in top quartile, ≥ 57.5).
- Demographic characteristics:
 - Gender
 - Race/ethnicity
 - Age group
 - Educational attainment
- Clinical and behavioral characteristics:
 - Time since HIV diagnosis
 - HIV care retention (past 12 months)
 - Viral suppression (past 12 months)
 - Unmet need for ancillary services (past 12 months)
 - Unprotected sex with HIV-/unknown partner (past 12 months)
- Analysis (SAS 9.4 survey procedures):
 - Weighted prevalence of any stigma, overall and by dimension.
 - Weighted bivariate associations between high stigma score and participant characteristics (logistic regression odds ratios).
 - All demographic characteristics and the clinical and behavioral characteristics with significant bivariate associations with high stigma included in an adjusted logistic regression model.

HIV Stigma Prevalence

Figure 1: Estimated HIV Stigma Prevalence, 95% Confidence Interval (CI), Overall and by Stigma Type



Sample Characteristics, Stigma Score, and Model Results

Table 1: Sample Characteristics, Median Stigma Score and Interquartile Range (IQR), Estimated Percent with High Stigma Score, and Bivariate and Adjusted Associations (Odds Ratio and 95% CI) Between Characteristics and High Stigma Score

		N	%	Median Stigma Score	IQR	% High Stigma Score	Unadjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
Gender	Female	91	15.6	45.0	35.0	26.8	1.13 (0.66-1.94)	0.77 (0.37-1.60)
	Male	489	83.7	40.0	32.5	24.5	Reference	Reference
	Transgender	< 5	---	---	---	---	---	---
Race/Ethnicity	Hispanic/LatinX	194	33.2	42.5	37.5	23.8	1.15 (0.67-1.98)	0.84 (0.46-1.54)
	Black/African-American	99	17.0	42.5	37.5	32.8	1.80 (0.96-3.38)	1.47 (0.75-2.89)
	White	231	39.6	37.5	32.5	21.3	Reference	Reference
	Multiracial	40	6.9	45.0	42.5	29.4	1.53 (0.69-3.40)	1.27 (0.55-2.97)
	Other	20	3.4	47.5	26.5	25.6*	1.27 (0.39-4.06)	1.19 (0.38-3.71)
Age Group	18-29	35	6.0	42.5	37.5	22.0*	0.99 (0.42-2.35)	0.84 (0.30-2.34)
	30-39	82	14.0	42.5	40.0	33.5	1.77 (0.95-3.27)	1.26 (0.63-2.50)
	40-49	136	23.3	42.5	31.3	26.3	1.25 (0.73-2.16)	1.08 (0.60-1.93)
	50+	331	56.7	37.5	32.5	22.2	Reference	Reference
Sexual Orientation	Gay/lesbian	340	58.6	37.5	32.5	19.9	Reference	Reference
	Straight/heterosexual	164	28.3	42.5	37.5	29.5	1.69 (1.03-2.76)^	1.39 (0.71-2.71)
	Bisexual	55	9.5	45.0	35.0	37.6	2.42 (1.20-4.86)^	2.09 (1.03-4.22)^
	Something else	21	3.6	47.5	30.0	35.8	2.24 (0.69-7.24)	2.14 (0.53-8.66)
Educational Attainment	Less than high school	76	13.0	53.8	27.5	37.7	2.09 (1.15-3.78)^	1.68 (0.81-3.49)
	High school/GED	116	19.9	41.3	36.3	24.7	1.13 (0.67-1.91)	1.01 (0.57-1.79)
	More than high school	392	67.1	37.5	31.3	22.5	Reference	Reference
Time Since HIV Diagnosis	Less than 5 years	104	17.8	40.0	35.0	28.8	1.68 (0.94-3.01)	1.59 (0.79-3.17)
	5-9 years	107	18.3	50.0	40.0	38.8	2.64 (1.53-4.56)^	2.66 (1.52-4.68)^
	10+ years	373	63.9	40.0	30.0	19.4	Reference	Reference
HIV Care Retention	Yes	485	85.8	40.0	30.0	24.0	Reference	---
	No	78	13.8	42.5	37.5	31.7	1.47 (0.77-2.82)	---
Viral Suppression	Yes	432	74.0	40.0	32.5	25.4	1.15 (0.68-1.94)	---
	No	152	26.0	40.0	32.5	22.9	Reference	---
Durable Viral Suppression	Yes	404	69.2	42.5	32.5	25.9	1.21 (0.73-1.99)	---
	No	180	30.8	37.5	35.0	22.4	Reference	---
Unmet Ancillary Service Need	Yes	325	55.7	45.0	35.0	32.4	Reference	Reference
	No	259	42.8	32.5	30.0	15.3	2.66 (1.70-4.16)^	2.44 (1.51-3.93)^
Unprotected Anal or Vaginal Sex	Yes	139	24.1	45.0	30.0	26.5	Reference	---
	No	439	76.0	40.0	32.5	23.9	0.87 (0.52-1.47)	---
Overall	---	584	100.0	40.0	32.5	---	---	---

*Estimate has a coefficient of variation ≥ 0.30 and should be interpreted with caution. ^Statistically significant at the $p < 0.05$ level.

Results

- The vast majority, 90%, of PLWDH experienced stigma of any dimension and 81% experienced disclosure stigma.
- More than half of PLWDH experienced public attitudes stigma and about half experienced personalized stigma.
- White PLWDH had a lower median HIV stigma score than PLWDH of other races/ethnicities (37.5 vs. 42.5 – 47.5).
- PLWDH who reported having had unmet ancillary service need in the past year had a higher median stigma score (45.0) than those who did not (32.5).
- Gay and lesbian PLWDH had a lower median HIV stigma score (37.5) than straight/heterosexual (42.5), bisexual (45.0), and PLWDH of other sexual orientations (47.5).
- In the adjusted model, group differences in high stigma score remained significant for 3 factors:
 - Having unmet need for ancillary services compared to having all service needs met (odds ratio (OR) 2.44, CI 1.51-3.93).
 - Sexual orientation of bisexual compared to gay/lesbian (OR 2.09, CI 1.03-4.22).
 - Time since HIV diagnosis of 5-9 years compared to 10 or more years (OR 2.66, CI 1.52-4.68).

Limitations

- Potential for social desirability bias exists due to interviewer-administered survey methods.
- MMP participant response rate was relatively low but estimates were adjusted to account for non-response bias.

Conclusions

- The vast majority of PLWDH in CA (excluding Los Angeles and San Francisco) have experienced HIV stigma, particularly that pertaining to disclosing HIV status to others.
- HIV stigma may result in individuals not seeking needed ancillary services, impacting their ability to attain long-term health and well-being. Experiences of discrimination on the basis of HIV status in clinical settings and when accessing ancillary services could increase HIV stigma. Longitudinal studies could help to identify causal pathways between HIV stigma and unmet ancillary service need.
- Since the majority of PLWDH in California are men who have sex with men, bisexual individuals may not see themselves reflected in HIV prevention and support programs, which could result in increased HIV stigma in this group.
- Efforts to increase viral suppression rates and decrease the number of new HIV infections should include stigma-reduction activities benefitting PLWDH universally and sub-groups with disproportionately high stigma burden in particular.

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Disclaimer:
The findings and conclusions in this article are those of the authors and do not necessarily represent the views of the California Department of Public Health.

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