

Getting to Zero San Francisco: A Collective Impact Approach

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Background: Building on several decades of innovative HIV prevention and treatment programming in San Francisco, in 2014, a small group of academic, civic, and community leaders launched Getting to Zero San Francisco, a city-wide consortium focused on getting to zero HIV infections, zero HIV-related deaths, and zero HIV stigma and discrimination.

Setting: San Francisco city and county.

Methods: The consortium operates under the principles of collective impact composed of 5 components: a common agenda, shared measurement, mutually reinforcing activities, continuous communication, and organization backbone. Two flagship initiatives are described: citywide scale-up of pre-exposure prophylaxis and rapid antiretroviral therapy upon diagnosis.

Results: The number of new HIV diagnoses declined by over 50% from 399 to 197 from 2013 to 2018; the time from diagnosis to viral suppression decreased from 134 to 62 days during that period. However, continued racial/ethnic disparities in new HIV diagnoses and viral suppression rates point to the need for the Getting to Zero San Francisco committees to focus on racial/ethnic equity as a primary focus. Cisgender and transgender women, people who inject drugs, and people who are homeless also have lower viral suppression rates; ongoing initiatives are attempting to address these disparities.

Conclusion: A collective impact implementation strategy that operates by unifying municipal organizations toward a common goal was associated with citywide gains in reducing new HIV diagnosis and time to viral suppression in San Francisco. Formal evaluation of this strategy will help elucidate under which conditions this approach is most likely to succeed.

Key Words: Getting to Zero, San Francisco, collective impact, fast track cities, 90-90-90

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S an Francisco, a hub of the HIV epidemic in the United States, is home to 12% of all persons living with HIV in

California but accounts for only 2.2% of the state's population. From the beginning of the HIV epidemic, the city of San Francisco was a "first responder" and has pursued a series of innovative programs and policies to address an array of everevolving challenges. HIV testing services were massively expanded starting in 2010, beginning with scale-up in clinical settings and moving to community-based and mobile services that were much more accessible than health facilities for testing and retesting for at-risk populations. In 2010, before US national HIV treatment guideline changes, San Francisco was the first jurisdiction to offer antiretroviral treatment to all persons living with HIV, not restricting eligibility by CD4 cell count. In 2012, shortly after the US Food and Drug Administration approved use of Truvada for pre-exposure prophylaxis (PrEP), San Francisco launched the first demonstration project for PrEP,¹ paving the way for future expansion.

In 2013, on the heels of the UNAIDS "Getting to Zero" campaign-calling for zero new infections, zero deaths, and zero stigma-a small group of academic and community leaders, persons living with HIV, and local politicians sponsored a Town Hall "San Francisco Getting to Zero-Where are We?" at the San Francisco LGBT Community Center. Declines in new HIV infections and deaths from the previous year seemed to have stalled—despite the increase in HIV testing, FDA approval of PrEP, and universal eligibility for antiretroviral therapy (ART). What became clear at this Town Hall meeting was that programs in prevention and treatment were moving forward in a fragmented, rather than a coordinated fashion, enabled by compartmentalized funding streams. Meeting attendees recognized and were in agreement that much more could be gained with the interventions and resources at hand if we coordinated efforts under a broader organizational structure.

Thus, in 2014, following the Town Hall, we established a new free-standing entity—Getting to Zero San Francisco (GTZ-SF)—a multisector consortium that operates under the principles of collective impact. GTZ-SF importantly was not a "competitor" to the many existing community-based organizations nor an entity directly under the San Francisco Department of the Public Health (SFDPH). Rather, our organization was an independent body that sought and leveraged the expertise of the community in the broadest sense, and collectively advocated and advised for resources from the public and private sector to support programming to meet its goals. "Successes" of GTZ-SF were those of the city as a whole; the Mayor as the highest city official was critical to the mission. As cities and local municipalities consider how to respond to new national targets for HIV-epidemic

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control, and as researchers evaluate results of these approaches, San Francisco is one of several models in the United States that has made measurable gains.² Here we describe the GTZ-SF collective impact implementation strategy and 2 flagship initiatives within a health equity framework. We discuss an analytic approach to understand the relationship between the organization and outcomes and comment on the generalizability of this approach for other communities or regions.

COLLECTIVE IMPACT

Collective impact is an implementation strategy used in health and other sectors that bring together organizations to align their efforts toward a common goal—that typically alone, each organization would be unable to reach.^{3,4} GTZ-SF's approach was built on the 5 core principles of collective impact (Table 1). The first and critical component for collective impact is the common agenda. A tripart mission to reduce new HIV infections, deaths, and stigma was unanimously adopted by the core members. Our steering group developed, vetted, and distributed a strategic plan community-wide to work toward these goals with 3 initial flagship projects, to expand (1) PrEP, (2) RAPID (treatment upon HIV diagnosis), and (3) retention and reengagement in care.

Shared measurement, the second component of the collective impact framework, was necessary if the GTZ-SF consortium was to set and evaluate implementation targets. The key outcomes of annual new HIV diagnosis and deaths were already captured in the San Francisco HIV Epidemiology Annual Report; thus, the consortium did not need to set up a new measurement system. Having this information was invaluable to steer interventions and investments toward persons at greatest risk for new HIV infection or those living with HIV who had fallen out of care. Process measures for the 3 flagship projects, however, were not explicitly included in the annual report. Thus, GTZ-SF worked closely with San Francisco HIV Surveillance Section to incorporate new metrics for PrEP and to track the time from diagnosis to antiretroviral start. The role of the consortium was to collaborate and advocate for resources for the Surveillance Section to adapt these metrics, which are now included in the annual report.5

The third core component of a collective impactstructured organization is to catalyze mutually reinforcing activities toward the common goal. Much of this work is performed through the committees, starting with the PrEP, Rapid, and Re-engagement in Care Committees. Each of these groups has broad membership from multiple community-based organizations as well as SFDPH, which funds many initiatives. A fourth group, a Housing Task Force, was created by GTZ-SF to address the remarkably low viral suppression rates among people with housing instability. Activities included (1) a consortium meeting where city leaders, housing advocacy organizations, and affected community members discussed short- and long-term solutions for housing for the HIV community; (2) organizations and members organized sign-on to San Francisco ballot initiatives

Component	Implementation	
Common agenda	Getting to Zero SF has a strategic plan to reduce HIV infections, death, and stigma in San Francisco endorsed by broad base of constituents. Accountability to the targets is reviewed annually.	
Shared measurement	San Francisco Department of Public Health collects and reports annual metrics on HIV infections, death, and other outcomes of interest such as antiretroviral therapy star and viral suppression	
Mutually reinforcing activities	San Francisco organizations act and contribute at policy, program, and community level guided by the strategy and GTZ-SF committees such as PrEP, RAPID, and housing	
Continuous communication	GTZ-SF holds thrice yearly consortium, hosts active website, sends updates to members, and conducts ongoing reportin to Mayors Office, Director of Departmen of Public Health, City Health Commissio	
Organization backbone	GTZ-SF has Steering committee (multisector volunteers), meets monthly and administrative staff (1 full-time, 1 part- time position) who support and coordinat activities and events inclusive of the committees.	

TABLE 1. Components of Collective Impact

to expand supportive housing; (3) GTZ-SF developed its own housing policy statement and participated in Mayoral Housing Task Force meetings; 4) one community-based organization (the San Francisco AIDS Foundation) launched a formal HIV and housing needs assessment; (5) the "front-line providers" group organized a new communication strategy for rapidly evolving housing allocation policies; and (6) the public HIV clinic at Zuckerberg San Francisco General Hospital launched a new program to improve care for unstably housed persons. Each of these activities are examples of GTZ-SF member organizations aligning efforts in response the consortium's call to action for the extraordinarily complex challenge of inadequate housing.

The fourth component of collective impact relies on strategic and ongoing communication. GTZ-SF has consortium-wide meetings thrice yearly. At these meetings, the consortium is provided with policy updates, progress on key initiatives, and a discussion of a key topic with a community-focused panel. GTZ-SF has a website that includes committee meeting summaries, protocols for the PrEP and RAPID programs, materials developed by each of the GTZ-SF committees, and a list serve where members can share updates of interest (eg, policy or funding from the state or national level, articles of interest). Social media is used to disseminate updates on policy, meetings, and events. Each year, the San Francisco Health Commission receives an update on progress of GTZ-SF, and the steering committee communicates regularly with the Mayor's Office, Supervisors, and Director of Public Health.

The administrative backbone of GTZ-SF, the fifth component of collective impact, is very streamlined, consisting of 1.2 full-time dedicated staff and a small budget for food

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at the consortium events and committee meetings. The bulk of the planning, reports, and work of the committees donated time by its more than 375 member cadre of volunteer providers, community members, public- and private-sector organizations, and political leaders. A Steering Committee, directed by 2 co-chairs and composed of representatives of the SFDPH, University, providers, leads of community-based organizations, and community members of diverse backgrounds, set the strategic vision for the consortium. They guide the committee work, identify policy issues that need to be addressed, communicate with high-level city officials, and mobilize funding to support initiatives of the committees.

MUTUALLY REINFORCING ACTIVITIES

PrEP

At the launch of GTZ-SF, PrEP scale-up was just beginning, with a demonstration project conducted at the municipal sexually transmitted disease clinic [San Francisco City Clinic (SFCC)], and a nascent program at Kaiser Permanente, the largest Health Maintenance Organization in the city. Most clinicians in the community were reluctant to prescribe PrEP, because of concerns of risk compensation and for fear that they would be inundated with patients seeking PrEP. When the PrEP committee launched in 2014, they recognized the need to increase both PrEP supply and demand, as well as to track PrEP uptake. The committee established 3 subcommittees, each tackling their unique need.

The subcommittee focused on increasing PrEP supply, and began working with many providers and organizations to launch PrEP initiatives over the next several years. PrEP protocols were developed, disseminated at SFDPH clinics, and posted on the GTZ-SF website. GTZ-SF advocated to the SFDPH to fund a nurse practitioner and part-time physician to develop materials and conduct PrEP academic detailing with providers throughout the city. A member of the PrEP committee launched pleaseprepme.org, an online tool to list providers willing to provide PrEP, so that potential PrEP users could identify a potential PrEP care provider; this project was later expanded nationally. PrEP-dedicated clinics were launched or expanded: at SFCC (after the demonstration project had ended), at Magnet (a men's sexual health clinic run by one of the largest HIV-related community-based organizations in San Francisco), as well as at the HIV clinic based at the public health hospital (Ward 86). PrEP navigators were hired using city general fund and federal dollars and placed at community-based organizations, and the SFDPH clinics believed to have the greatest potential to provide PrEP to their patient population. Navigators across the city and in other jurisdictions were trained through PrEP "boot camps" to ensure the most up-to-date, and comprehensive information was available about PrEP-related resources. A PrEP providers group was formed that met monthly to brainstorm strategies to provide PrEP to populations with lower PrEP uptake, including transgender and cisgender women and people who inject drugs. A fund was established to purchase Truvada for youth under 18 years, as they were not eligible for Gilead's Patient Assistance Program and were often uncomfortable or

unable to use their parents' insurance; additional funding was provided for transportation of youth to PrEP clinics. A GTZ-SF member, in collaboration with SFCC, launched a novel community-based pharmacy-delivered PrEP model in the city's Mission district,⁶ a neighborhood traditionally serving a large Latinx population.

The subcommittee focused on increasing PrEP demand was tasked with increasing outreach to communities in need of PrEP. Several social media campaigns were launched. The first campaign focused on the joyfulness of PrEP; a follow-up campaign used African American and transgender community members who discussed how PrEP supports their creativity, intelligence, and other positive attributes. Online and radio advertising encouraged people with PrEP questions to get in touch with a centralized PrEP navigator, who was able to provide education and linkage to services. The San Francisco SFDPH issued 4 requests for proposals and, in turn, funded 4 community-based organizations to increase interest in 4 communities that the data demonstrated were underserved by PrEP: African Americans, Latinx, youth, and transgender women (The group funded to increase PrEP awareness in the Latinx community won an award from POZ magazine for the best HIV prevention media campaign of 20187). A PrEP demonstration project was launched for transgender women in which gender-affirming care was integrated with PrEP care. SFDPH staff integrated PrEP counseling into partner notification services for partners of persons with newly diagnosed HIV or syphilis; a "data to PrEP" program also provided PrEP outreach to persons with newly acquired syphilis or rectal gonorrhea or chlamydia. A PrEP ambassador program was launched, in which PrEP users were trained to go out speak with other community members at street fairs and other events about their experiences using PrEP.

The third subcommittee launched several initiatives to measure PrEP uptake in the community. SFDPH began tracking PrEP provided by each of the community-based organizations they funded, using a centralized scorecard that identified the number of PrEP starts, by age and race/ ethnicity. Kaiser analyzed data from their own program,⁸ as has Magnet and SFCC. A quarterly mobile survey was advertised online and recruited approximately 900 MSM and transgender women in San Francisco to measure all stages in the PrEP cascade.9 To develop an overall estimate of PrEP uptake among MSM in San Francisco, data were used from 2 population-based surveys: the National HIV Behavioral Surveillance system¹⁰ and the STOP AIDS Project survey. These 2 surveys provided estimates of the proportion of HIV-negative MSM or those with unknown serostatus who reported using PrEP from 2014 to 2017. These proportions were multiplied by the estimated size of the HIV-negative population in San Francisco¹¹ to estimate the total number of MSM on PrEP during those years. We estimate that the overall number of MSM using PrEP increased from approximately 4400 in 2014 to between 16,300 and 20,000 in 2017. This coincides with a 58% decline in new HIV diagnoses from the year PrEP was first rolled out, in 2012, to 2018 (Fig. 1).

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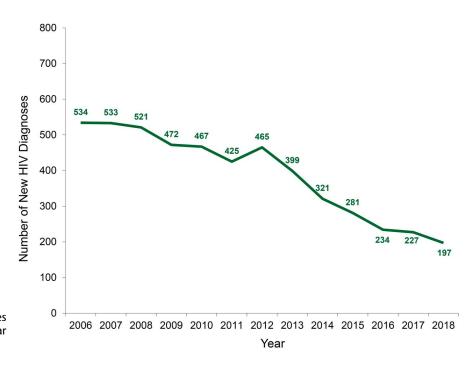


FIGURE 1. Number of new HIV diagnoses in San Francisco from 2006 (the first year of HIV case reporting) through 2018.⁵

RAPID

GTZ-SF's RAPID committee, comprised of providers from public and private sectors and the SFDPH, took a number of specific steps to support the city-wide expansion of Zuckerberg San Francisco General Hospital pilot RAPID program, offering HIV treatment upon diagnosis. Three major levels of change were required to expand and disseminate the RAPID approach to ART start. First, health systems needed to develop protocols to provide flexible scheduling to see newly diagnosed patients, including insurance enrollment for persons not previously in a health system. Second, providers needed to be comfortable with and have access to offering treatment on diagnosis and be assured that follow-up counseling, laboratory assessments, and adherence support could be provided in this framework. Third, patients needed to understand the rationale for rapid ART start and their autonomy in decision-making. National guidelines for rapid ART start have only recently changed, and thus, these efforts preceded guideline changes by approximately 5 years.¹²

The RAPID committee started by developing a citywide protocol. This protocol was built on the Zuckerberg San Francisco General Hospital program,¹³ with the intent for individual clinical programs to adapt this protocol for their specific setting. Next, GTZ-SF successfully obtained 1-year funding through the SFDPH for a part-time physician and a full-time program staff to do academic detailing on the rationale and logistics of RAPID implementation to health systems and clinics around the city. Of note, all detailing materials and protocols are posted and updated by the RAPID committee on the GTZ-SF website to provide local, national, and global access. The RAPID team also worked to connect testing sites to clinics that had the capacity for RAPID ART starts. After this surge activity, the RAPID committee began hosting a monthly case-centered meeting where providers and program representatives across the city discussed successes and challenges of RAPID programming. This was later expanded to include discussion of PrEP successes and challenges. Finally, the committee worked with the SFDPH surveillance team to augment metrics to measure the performance of RAPID with the targeted program expansion. From 2013 to 2016, health providers and systems under the GTZ-SF consortium started implementing a RAPID approach to ART start. Consumer demand for rapid ART increased. The median time from new HIV care to ART start decreased by over 90% from 27 to 0 days; the time from HIV diagnosis to viral suppression decreased by over 50% from 134 to 62 days (Table 2). These metrics and those from Zuckerberg San Francisco General Hospital showing 95.8% of participants in the RAPID program had ever achieved viral suppression by 1 year¹⁴ were reported at the consortium meetings, providing accountability and reinforcement.

OUTCOMES VIEWED THROUGH A HEALTH EQUITY LENS

Overall, since 2012, the number of new HIV diagnosis in San Francisco has declined by 58%; this compares with a national decline of only 7% over that period. One of the key components of a successful collective impact approach is

TABLE 2.	Median Number of Days From HIV Diagnosis to	
Care India	ators	

Indicator	2013 (Median Days)	2017 (Median Days)
First medical care to ART start	27	0
ART start to first viral suppression	71	46
HIV diagnosis to first medical care	8	4
HIV diagnosis to first viral suppression	134	62

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equity and inclusion. The GTZ-SF consortium had access to disaggregated data-one way to assess its progress through this lens. Our analyses showed striking health disparities across many metrics, including HIV diagnosis rates by race/ethnicity (Fig. 2). From 2006 to 2018, the annual rate of HIV diagnoses per 100,000 population declined among all racial/ethnic groups, but disparities remain, with infection rates highest in African American men and women and Latinx men (Fig. 2). In fact, despite women accounting for only 12% of new HIV diagnoses in 2017, rates in African American women exceeded those in white men. Rates of viral suppression were also lower among cisgender and transgender women than cisgender men, African American and Latinx persons than White and Asian persons, persons under 50 years than older persons, and people who inject drugs than among men who have sex with men who did not inject drugs (Table 3). Viral suppression rates were lowest among people who were homeless.^{15,16}

With this information, our steering committee charged each of the committees to address these disparities in the work they do, with a particular focus on racial/ethnic disparities, which underlie most of the other disparities. To address disparities in HIV diagnoses, initiatives have been launched to increase PrEP uptake particularly among African Americans, Latinx, transgender women, and youth, as described previously. The RAPID program has the potential to undo racial/ethnic disparities in the speed with which people achieve viral suppression, as all newly diagnosed persons have access to this program. Two GTZ-SF consortium meetings have focused on issues facing African Americans and Latinx at risk for and living with HIV17,18; other consortium meetings have focused on cisgender and transgender women,19,20 people who are homeless,21 people who use drugs,²² and youth.²³ The GTZ-SF steering committee and other committee leadership is undertaking racial equity training. We are developing African American and Latinx community groups to make develop innovative racial equity programs to address these disparities in HIV infection rates and HIV outcomes. We have much work to do, and are trying to innovate within each of the committees to address these disparities.

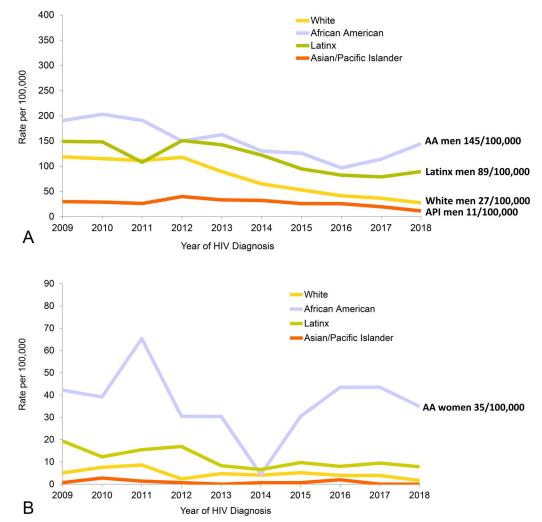


FIGURE 2. Annual new HIV diagnosis rates per 100,000 (A) men and (B) women from 2009 through 2018, San Francisco.⁵ AA, African American; API, Asian/Pacific Islander.

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Demographic	No. of Living Cases	% Virally Suppressed (<200 Copies/mL)
Overall	12,778	74
Gender	,	
Cisgender men	11,688	74
Cisgender women	725	66
Transgender women	360	68
Race/ethnicity		
White	7095	76
African American	1606	68
Latinx	2742	70
Asian/Pacific Islander	815	77
Other/unknown	520	74
Age		
13–24	83	80
25–29	382	69
30–39	1175	67
40–49	2804	67
50–59	4542	75
60–69	2548	81
70+	704	83
Transmission category		
MSM	9263	76
TWSM	207	71
PWID	745	65
MSM-PWID	1719	68
TWSM-PWID	151	64
Heterosexual	470	70
Other/unidentified	223	51
Housing status, most recent		
Housed	12,447	75
Homeless	331	33
Country of birth		
US	9321	75
Non-US	2201	69
Unknown	1256	76

TABLE 3. Viral Suppression in People Living With HIV in San

 Francisco, 2018

MSM, men who have sex with men; PWID, people who inject drugs; TWSM, transgender women who have sex with men.

COLLECTIVE IMPACT EVALUATION

Methods to evaluate the effect of collective impact are in the early stages of development.^{24–26} "Process tracing" is one proposed approach described by Stachowiak and Gase.²⁷ The central hypothesis is that the initiatives developed and implemented under a collective impact approach can explain the resulting outcomes. To test this hypothesis, one needs to assess the degree to which initiatives are associated with desired outcomes and the degree to which the activities undertaken under collective impact uniquely explain the result. Process tracing requires gathering data from stakeholders; it starts by creating and refining a model, testing hypothesis and assessing the strength and relationship between collective impact activities and outcomes.

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Using process evaluation to assess the effect of collective impact on 25 initiatives ranging from health to the environment, Stachowiak and Gase²⁸ found that of the 5 components of collective impact, having backbone support and a common agenda were most frequently prioritized among collective impact initiatives that achieved change in their target populations. Without these, it is difficult to foster mutually reinforcing activities or maintain the continuous communication required to be successful. Some other key findings from their work are (1) collective impact contributes to desired changes in outcomes, but that the degree to which they contributed in this analysis varied across projects; (2) the quality of the implementation matters, with more complete implementation of the 5 components resulting in greater impact; (3) change takes time, with the time between inception and impact ranging from 4 to 24 years across projects; (4) achieving equity requires deliberate effort and actions²⁹; and (5) much more research and data are needed to define, refine, and compare this with other approaches.

Although we do see an ecologic association between the start of GTZ-SF and our priority outcomes, we have not yet applied process tracing to formally assess the impact of GTZ-SF. We are, however, well positioned to do so with our collective impact structure, programming, and objective outcomes. This would indeed be important to do for own group, the field of collective impact and to address and legitimate criticisms waged against the collective impact approach.^{30,31}

IMPLICATIONS

A combination of new approaches will be needed for the United States to end HIV as an epidemic by 2030.32,33 GTZ-SF's collective impact implementation strategy may provide a model for other municipalities and contribute to the larger global "Fasttrack cities" effort.34 Our progress was clearly facilitated by having an integrated City and County (with a single, strong health department) and extensive HIV surveillance system. Geopolitical boundaries with different levels of political engagement, funding streams, and health system reporting can pose huge barriers for collaboration. San Francisco also has a highly effective and collaborative network of community-based organizations, academic advocates, political support for HIV services, and a large and politically active base of persons affected by HIV -which may not be present in other jurisdictions. However, high housing costs, mobile populations, and high rates of methamphetamine use35,36 as well as inadequate mental health programs³⁷ pose a huge and complex barriers for persons with or at risk for HIV that may not be present in other cities.³⁸ The genesis of GTZ-SF was the recognition that unified efforts under a common goal could accelerate HIV-epidemic control better than a fragmented approach. We conclude that GTZ-SF's collective impact implementation strategy is addressing this gap and could be an asset to other municipalities or geographic units. Much more research needs to be performed on methods to understand the effect of collective impact and under which conditions it is most likely to succeed.

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