The San Francisco Cancer Initiative

SF CAN

Robert A. Hiatt, MD, PhD
UCSF
Department of Epidemiology & Biostatistics
Helen Diller Family Comprehensive Cancer Center
I have nothing to disclose.
The Cancer Control Challenge

• Cancer prevention can have a huge impact on reducing cancer incidence and mortality.

• Up to 50-60% of cancers could be prevented (Colditz 2006;2012).

• We have the opportunity to implement what we know with greater precision and greater impact.

• What might a comprehensive, integrated, precisely directed, transdisciplinary approach to cancer prevention look like in a major U.S. metropolitan area?
The Cancer Burden in the Population?

- Number of Cancer Cases
- Incidence and Mortality Rates
- Cancer Trends
- Risk Factors
- Disparities
- Cancer Costs
- Cancer Survivors
Defining Catchment Area

- Captures 98% of HDFCCC cancer cases (2010-2014)
- 65% in nine Bay Area counties
- 21% in San Francisco

Community Outreach and Engagement
Characteristics of the Cancer Burden in San Francisco

- San Francisco 2018 population estimated at over 860,000.
- 5.4% of the population is black, 47.6% are white and 34.2% are Asian Americans. 15.7% are Latino.
- Cancer is the number one cause of death.
- Over the most recent 5 year period there were ~3950 new cancer cases per year and 1388 deaths.
- The 4 most common sites (prostate, breast, lung and colorectal cancer) account for 48% of all new cases and 44% of deaths.
- The 10 most common cancers account for 68% of new cases and 73% of deaths.
Characteristics of the Cancer Burden in San Francisco

- Tobacco-induced cancers remain the first cause of cancer mortality – lung
- High degree of race/ethnic diversity and disparities in cancer rates
- High incidence areas for breast and prostate cancer
- Environmental exposures
- HIV/AIDS associated cancers
- Cancers associated with Asian and Latino populations
San Francisco Cancer Initiative

- Our goal is to reduce the cancer burden and inequities in incidence and outcome by applying evidence-based interventions, new technologies and our knowledge of needs of all the citizens of San Francisco.
- A broad long-term population health perspective.
- A multilevel–genes to society view of the determinants of cancer.
- A transdisciplinary approach with teams, community partners and political leaders partners for “community impact”.
- We use a from ‘precision population health’ approach and our capacity to harness ‘Big Data’.
SF CAN

• Documents the Cancer Burden in terms of incidence, mortality, trends, disparities, and cost.
• Localizes the cancer burden and disparities with the help of geospatial technologies.
• Creates a partnership for “collective impact”.
• UCSF acts as “backbone” organization in collaborations with partners throughout San Francisco to build a team.
• Introduces innovative ideas for interventions and programs to make a measureable difference.
• Identifies areas for further research.
The San Francisco Cancer Initiative: A Community Effort To Reduce The Population Burden Of Cancer

Incidence of and mortality from five leading causes of cancer in San Francisco, by sex, 2010–14

<table>
<thead>
<tr>
<th>Type of cancer</th>
<th>Incidence</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>Breast</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>—</td>
<td>2,864</td>
</tr>
<tr>
<td>Rate</td>
<td>—</td>
<td>121.13</td>
</tr>
<tr>
<td>Lung</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1,279</td>
<td>1,000</td>
</tr>
<tr>
<td>Rate</td>
<td>59.26</td>
<td>38.97</td>
</tr>
<tr>
<td>Prostate</td>
<td></td>
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</tr>
<tr>
<td>Count</td>
<td>2,176</td>
<td>—</td>
</tr>
<tr>
<td>Rate</td>
<td>95.73</td>
<td>—</td>
</tr>
<tr>
<td>Colorectal</td>
<td></td>
<td></td>
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<tr>
<td>Count</td>
<td>963</td>
<td>913</td>
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<tr>
<td>Rate</td>
<td>42.67</td>
<td>35.94</td>
</tr>
<tr>
<td>Liver</td>
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<tr>
<td>Count</td>
<td>615</td>
<td>186</td>
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<tr>
<td>Rate</td>
<td>25.36</td>
<td>7.37</td>
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<tr>
<td>All</td>
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<tr>
<td>Count</td>
<td>10,342</td>
<td>9,397</td>
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<tr>
<td>Rate</td>
<td>458.87</td>
<td>382.38</td>
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SOURCE: Cancer Prevention Institute of California, Greater Bay Area Cancer Registry (see note 14 in text). NOTE: Incidence represents new cases and deaths per 100,000 residents of the Greater San Francisco Bay Area. *SF CAN targets only breast cancer in women. Prostate cancer relevant only for men.
Incident Cancer Cases for San Francisco County, 2008-2012

Site
- Stomach
- Ovary
- Thyroid
- Liver
- Kidney and Renal Pelvis
- Pancreas
- Corpus Uteri
- Breast (in situ)
- Bladder
- Non-Hodgkin Lymphoma
- Colon and Rectum
- Melanoma (invasive)
- Lung and Bronchus
- Prostate
- Breast (invasive)
Cancer Deaths for San Francisco County, 2008-2012

<table>
<thead>
<tr>
<th>Site</th>
<th>Hispanic</th>
<th>NH Asian/PI</th>
<th>NH Black</th>
<th>NH White</th>
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<tbody>
<tr>
<td>Corpus Uteri</td>
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<td>Myeloma</td>
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<tr>
<td>Stomach</td>
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<tr>
<td>Kidney and Renal Pelvis</td>
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<tr>
<td>Leukemia (acute myeloid)</td>
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<td>Esophagus</td>
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<tr>
<td>Ovary</td>
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<tr>
<td>Non–Hodgkin Lymphoma</td>
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<tr>
<td>Lung and Bronchus</td>
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4.26.19
SF Bay CRN - SF CAN
Prostate Cancer Trends
(San Francisco County, 1988-2012)
Lung Cancer Trends
(San Francisco County, 1988-2012)

Lung Cancer Incidence

Lung Cancer Mortality

Year

Age-Adjusted Incidence Rates (per 100,000)

Non-Hispanic Black
Non-Hispanic White
Hispanic
Non-Hispanic Asian/PI

Age-Adjusted Mortality Rates (per 100,000)

Non-Hispanic Black
Non-Hispanic White
Hispanic
Non-Hispanic Asian/PI

4.26.19
SF Bay CRN - SF CAN
What Areas for Initial Concentrated Effort? Task Forces

• Tobacco Initiatives – high risk users and policy
• Screening for Colorectal Cancer in vulnerable populations.
• Screening for Hepatitis B & C and treatment for Hep C to prevent Liver Cancer
• Risk based prostate cancer screening for AA men and better access and higher quality of care for PSA+ men.
• Improvements in breast cancer screening through access and risk based screening procedures.
Mean neighborhood socioeconomic status quintile by SF neighborhood
The burden of cancer varies by neighborhood, gender, and cancer site. SF CAN uses neighborhood-specific data to inform prevention and early detection interventions.
**Liver Cancer Task Force Logic Model**

**Inputs**
- Evidence-based information
  - HBV vaccination
  - HCV treatment
  - HCV treatment/cure
  - State of the art care for liver cancer/liver disease
  - Liver cancer screening
  - Emerging: alcohol & fatty liver disease/management, prevention, & treatment

- Existing Resources
  - UCSF HDFCCC, SFDPH, Healthcare Organizations ( Kaiser Permanente, CCPM/Sutter, VAMC, Northeast Medical Services, Chinese Hospital, UCSF, ZIP2/UNI, Community Organizations [Project Inform, SF Hep B Free, End Hep C, SF])

**Activities**

### HBV Elimination
- Support SF Hep B Free
- Community outreach events
- Develop provider education interventions for management
- Develop phone line navigation program in English and Chinese
- Support SFDPH Hep C Registry
- Collect and assess hep B screening and care from healthcare systems
- Assess quality of care for UCSF HBV hepatitis C patients
- Creating a hep B patient registry

### HCV Elimination
- Functional website
- Monthly meetings with HCV elimination partners
- Finalized strategic plan
- Deliver interventions to increase provider education on HCV
- Expansion of community-based testing programs
- Increased number of providers treating hep C
- Increased HCV education forums/events/training activities
- Academic detailing program
- Hep C prevalence estimate
- UCSF Quality improvement program

### Liver Cancer Detection
- More people screened for liver cancer
- Current liver cancer screening rates at ZSFGH
- Increases liver cancer screening cap at ZSFGH through weekend hours

### Liver Cancer Treatment
- Oncologists, hepatologists, and gastroenterologists better informed to provide state of the art care for liver cancer
- Increased recruitment to liver cancer treatment trials by 25%
Evaluation

• Monthly updates from Task Force leaders

• Logic models for each Task Force

• Annual progress reports
  Accomplishments
  Problems
  Goals
  Plans for next year
Successes

• Tobacco
  – Menthol and flavored tobacco products –banned! Proposition E passed!!
  – Social media for smoking cessation among young adults.
  – Smoke-free areas in homeless shelters

• Liver
  – improved access to education, screening and treatment for Hep B & C

• Breast
  – Organized a collaborative for breast cancer screening and follow-up agencies to integrate activities across the city
  – Mapped areas of the city with highest incidence of late stage breast cancer

• Colorectal
  – Focused on safety net SF Consortium Clinics to provide systems for screening – improved FIT screening rates

• Prostate
  – Developed approach to providers and to the community for up-to-date information about PSA testing and a Quality Collaborative to reduce overdiagnosis and over treatment for African American men.
Scaling Up

• Adding programs to modify life-style risk factors in primary prevention (e.g., diet, sugar sweetened beverages, and physical activity)
• Additional cancers – e.g. melanoma, cervix (HPV vaccination)
• Expand to other Bay Area Counties
• Model for other programs nationally.
Opportunities for Research

• Participants for clinical and epidemiologic research - biospecimens
• The role of social determinants of cancer
• Dissemination and Implementation research
• Surveillance research for outcomes
• Reducing disparities
• Environmental exposures and cancer
• Quality of care variations
• Complex systems research
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  – David Serrano-Sewell
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  – Eric Mar
• California Comprehensive Cancer Control Program
  – Shauntay Davis
• Task Force Members
FIN
Fund Raising

• Project dependent on philanthropy and linked research grants
• UDAR actively involved
• Capital Campaign
• Cultivation of interested individuals
• Partner contributions from Community Benefit Funds and other sources