



Particulate Matter (PM) Symposium: Status Report

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Board of Directors Special Meeting
By BAAQMD Advisory Council
June 3, 2020



PM Focus: Context

- Following three years of **intense wildfire smoke**, focus on **reducing diesel PM** emissions, and conclusion that PM is overwhelming **health risk driver** in Bay Area air
- Air District asked Advisory Council to **focus on PM**
- Provide Advisory Council's take on **latest and best science**, in science-affirming way
- **Assist Air District** to identify those further PM measures that would most move public health needle, especially in most impacted communities, above and beyond what the Air District is already doing



PM Symposium: Work Products

October

**Particulate Matter:
Spotlight on Health Protection**

Symposium Summary:
Health Effects and
Exposures and Risk

October 28, 2019

BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

- State of Science: PM health effects, exposures, risk
- 9 national experts
- 33-pg report

December

**Particulate Matter:
Spotlight on Health Protection**

Advisory Council Meeting Summary:
BAAQMD Update on Current and
Emerging Efforts on Particulate Matter

December 9, 2019

BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

- Council deliberations
- District update on emerging PM efforts
- 35-pg report

February

Community Particulate Matter Discussion
February 27, 2020

NOTE: A full transcript of the event is available from the stenographer. This summary aims to capture key themes in advance of the submission date for background materials for the next PM Symposium.

Overview

Community members, grassroots organization leaders, and Air District staff members met at the Bobby Bowens Center in Richmond on the evening of February 27, 2020 to gather community input on particulate matter (PM) impacts, monitoring, and regulatory efforts. The event was organized by a Design Team of community leaders with assistance from Elsinor Matters of the Air District's Community Engagement Section. Approximately 30 people attended to express their concerns regarding PM, its sources, and its health effects.

Input from community members centered on the following issues:

Localized PM data availability

- Desire for data beyond West Oakland
- Desire for real-time, continuous, publicly accessible localized monitoring
- Consolidating/sharing community-collected data (e.g. PurpleAir)

Toxicity of different PM species

- Concerns regarding severity of problems from refineries and other permitted sources (e.g. cement plant, concrete crushers, metal processing facilities)
- Skepticism regarding wood burning as a major driver of health impacts

Lack of observable results from prior rulemaking

- 2017 Clean Air Plan
- Crude state inventory
- General enforceability issues

Potential for problems to worsen

- Issuance of new permits
- Emerging indoor air concerns (e.g. vapor intrusion) beyond the scope of the Air District
- Climate impacts
- Lengthy time horizon prior to implementation (e.g. diesel PM rules took 10 years)

This summary provides a brief background on the event. Additional details regarding these community concerns and the Air District's clarifications in reply are noted in the transcript.

- Community PM discussion
- District staff, ~30 community members, ~16 organizations

May

AGENDA: 4A

**Community Reflections
from Feb. 27 Community
Summit on PM**

Jed Holtzman, MEM
Senior Policy Analyst

on behalf of the
BAAQMD Network

AGENDA: 5

**Update on Air District
Particulate Matter (PM)
Potential Policy
Strategies**

Advisory Council Meeting
May 12, 2020
Greg Nudd
Deputy Air Pollution Control Officer

- Community presentations to AC
- District update on PM potential policy strategies

July

Title of Panel: "Developing a Path Forward for PM_{2.5} Regulation in the Bay Area"

A&WMA's 113th Annual Conference & Exhibition
San Francisco, California
June 29 - July 2, 2020

Panel Abstract #840901

Chair or Moderator: Brian Binger, District Counsel, Bay Area Air Quality Management District, 375 Beale Street, San Francisco, CA

Co-Chair or Vice Chair: Stanley Hayes, Chair, Bay Area Air Quality Management District Advisory Council, 25 Napier Lane, San Francisco, CA 94133, (415) 299-0489, stanhayes1967@gmail.com

Synopsis of Panel: With the San Francisco Bay Area at or approaching a number of ambient air quality standards, including those for particulate matter (PM), the Bay Area Air Quality Management District (Air District) and its Advisory Council (Council) seek to identify the next best steps beyond those efforts already underway, that will achieve the greatest public health improvement in Bay Area air quality, especially in the most impacted communities. The Air District and the Council have determined that PM is a key public health risk driver, both as a criteria pollutant, P_{2.5}, and a toxic air contaminant in the form of diesel PM. This panel will describe the nature, and present the findings, of a PM Health Effects Symposium convened by the Air District and the Council in October 2019, and will discuss sharing the path forward toward greater public health protections from PM. The symposium included nationally recognized experts who provided timely and important updates on the latest PM health science, a topic of key relevance given the Environmental Protection Agency's recent proposal to retain, rather than strengthen, current federal PM standards.

List of Potential Panelists:

- Dr. Christopher Frey, Professor of Environmental Engineering, North Carolina State University, Chair, Independent Particulate Matter Review Panel
- Dr. Jeffrey McKee, Chief Financial Officer, Bay Area Air Quality Management District Member, Advisory Council
 - Dr. Michael Kleinman, Professor of Occupational and Environmental Medicine, Department of Medicine, University of California, Irvine
 - Dr. Steven Bernstein, Professor of Business Administration and Public Policy, Haas School of Business, University of California at Berkeley
 - Dr. Timothy Iqbal, Co-Director, Transportation Research Center, University of California at Berkeley
 - Dr. Jane C.S. Long, Associate Director for Energy and Environment, retired, Lawrence Livermore National Laboratory
 - Dr. Linda Radloff, M.D., Director, Center for Climate Change and Health, Public Health Institute
 - Dr. Gus Solomon, M.D., M.P.H., Clinical Professor, Division of Occupational and Environmental Medicine, University of California San Francisco

- Panel Session
- A&WMA Virtual Annual Meeting
- July 1, 2020



PM Symposium: Q&A Document – Health Effects Panel (DRAFT)

Are current PM standards sufficiently health protective?

NOT SUFFICIENTLY PROTECTIVE; MORE STRINGENT STANDARDS NEEDED URGENTLY; LOWER STANDARD WOULD SAVE THOUSANDS OF LIVES IN U.S. EACH YEAR; NO EVIDENCE OF A “NO EFFECT” THRESHOLD – ADDITIONAL PM REDUCTION, EVEN BEYOND STANDARDS, WILL ACHIEVE ADDITIONAL PUBLIC HEALTH IMPROVEMENT

Are some species of PM more dangerous than others?

QUITE POSSIBLY, BUT NOT ENOUGH INFORMATION; NO PM SPECIES “EXONERATED”; NEED BETTER PM SPECIATION AND MORE MONITORING

What is role of ultrafine particles (UFPs)?

TOXICOLOGICAL STUDIES SHOW EFFECTS OF SERIOUS CONCERN; NEED REFERENCE TESTING METHOD, MORE MONITORING; NEED EPIDEMIOLOGICAL STUDIES RELATING HEALTH EFFECTS TO UFP EXPOSURE

Should PM expand “target” to account for more than just mass?

IN RESEARCH, ABSOLUTELY; IN REGULATION, MAY BE TOO SOON, BUT WE SHOULD BE THINKING ABOUT HOW TO MOVE IN THAT DIRECTION

How should we include draft PM ISA’s new “likely-causal” health endpoints (nervous system effects, cancer) and new more sensitive populations (children, lower socio-economic status)?

MUCH STRONGER EVIDENCE SUPPORTING MORTALITY/MORBIDITY AS CAUSAL; ADDITIONAL HEALTH EFFECTS NOW “LIKELY-CAUSAL”; PLUS MORE SENSITIVE HIGH-RISK GROUPS (E.G., CHILDREN AND LOW SES); NEED TO INCORPORATE THIS INFORMATION INTO REGULATORY EFFORTS

What are health impacts of high-concentration short-term events (e.g., wildfires)? How should we compare them to longer-term PM impacts?

ISSUE OF URGENT CONCERN; DATA ON SUB-DAILY ACUTE EXPOSURES IS LIMITED; SERIOUS EFFECTS REPORTED IN EARLY STUDIES; NEW STUDIES ONGOING; MORE RESEARCH NEEDED



PM Symposium: Q&A Document – Exposure & Risk Panel (DRAFT)

What are major sources of PM in the Bay Area?

WEST OAKLAND (LOCAL EMISSIONS): PM2.5 – PORT (17%), STREET (17%), HIGHWAY (16%), RESTAURANTS (16%), STATIONARY SOURCES (14%)
DIESEL PM – PORT (57%), STREET (7%), HIGHWAY (8%)

ONROAD BRAKE AND TIRE WEAR NOW SIGNIFICANT REGIONAL SOURCES OF PM2.5 – DIFFICULT TO ADDRESS THIS PROBLEM

What PM levels exist in Bay Area? What health risks do they pose?

WEST OAKLAND (AVERAGE): PM2.5 = ALL SOURCES - 8.7 ug/m³, LOCAL SOURCES – 1.7 ug/m³
DIESEL PM = ALL SOURCES - 0.7 ug/m³, LOCAL SOURCES – 0.3 ug/m³

How much additional health benefit can be achieved?

**REDUCING ANNUAL PM2.5 FROM CURRENT FEDERAL STANDARD OF 12 ug/m³ TO 10 ug/m³ COULD REDUCE MORTALITY RISK BY 10-15%;
WOULD SAVE THOUSANDS OF LIVES IN U.S. EACH YEAR; NO THRESHOLD; COULD REGULATE BELOW 10 ug/m³ BASED ON THE SCIENCE**

How should we account for spatial scale of effects (i.e., regional versus local-scale impacts, including proximity to major sources)?

REGIONAL VS. LOCAL VS. HYPER-LOCAL IMPACTS – ALL CAN BE IMPORTANT, AND SHOULD BE ADDRESSED

WEST OAKLAND: PM2.5 – OVERALL = 80% FROM REGIONAL SOURCES, 20% FROM LOCAL SOURCES
DIESEL PM – OVERALL = 40% FROM REGIONAL SOURCES, 60% FROM LOCAL SOURCES
(BUT HYPER-LOCALIZED HOT SPOTS FROM LOCAL SOURCES COULD BE HIGHER)

How should we determine which measures would most move public health needle?

WE NEED TO TAKE ACTION NOW, AND WE NEED MORE SCIENCE; MONITORING AND RESEARCH NEEDED; DISTRICT STAFF WILL PROPOSE ACTIONS; NO SINGLE ANSWER, WILL NEED TO ADDRESS MULTIPLE SOURCES



PM Symposium: Evaluation of Potential Actions (DRAFT, For Discussion Only)

Number	Potential Actions
1	Establish goal for PM reductions below current standard (8-10 ug/m3)
2	Set more stringent state PM standards
3	Classify undifferentiated PM as toxic air contaminant
4	Improve emission estimation methods for emerging source categories (e.g., tires & brakes, road dust)
5	Develop Air District PM plan updated with new information
6	Set improved UFP filtration requirements for on-road vehicles
7	Attack PM from all directions, including regional, local, and hyper-local
8	Include sources that have slipped through cracks before in air toxics programs
9	Make air quality data more accessible and closer to real time
10	Reassess need to regulate smaller sources not of regional significance
11	Take aggressive action to reduce PM, additional PM reduction in PM results in additional improvement in public health
12	No single answer, no silver bullet, rather silver buckshot
13	Consider children and low SES groups especially
14	Factor in secondary PM, since nearly half (47%) of PM is secondary, formed in the air by photochemical processes
15	Regulate precursors of secondary PM (NOx, ROG, SO2, NH3), and see them as cumulative with local sources
16	Identify near-term actions, and roll them out early
17	Increase staff to implement/enforce Rule 11-18
18	Devote more staff to risk assessment for air toxics programs like Rule 11-18
19	Identify problematic local sources and deal with them faster
20	Take into account cumulative impact in permitting

- Nearly 50 potential actions identified so far
- Collected from outside experts, District staff, community, other



PM Symposium: Evaluation of Potential Actions (DRAFT, For Discussion Only)

Number	Category	Potential Actions	Authority
1	Planning	Establish goal for PM reductions below current standard (8-10 ug/m3)	District
2	Regulations	Set more stringent state PM standards	State
3	Planning	Classify undifferentiated PM as toxic air contaminant	State
4	Planning	Improve emission estimation methods for emerging source categories (e.g., tires & brakes, road dust)	State
5	Planning	Develop Air District PM plan updated with new information	District
6	Planning	Set improved UFP filtration requirements for on-road vehicles	Federal
7	Policy	Attack PM from all directions, including regional, local, and hyper-local	District
8	Planning	Include sources that have slipped through cracks before in air toxics programs	District
9	Air Quality	Make air quality data more accessible and closer to real time	District
10	Planning	Reassess need to regulate smaller sources not of regional significance	District
11	Planning	Take aggressive action to reduce PM, additional PM reduction in PM results in additional improvement in public health	District
12	Planning	No single answer, no silver bullet, rather silver buckshot	District
13	Planning	Consider children and low SES groups especially	District
14	Planning	Factor in secondary PM, since nearly half (47%) of PM is secondary, formed in the air by photochemical processes	District
15	Planning	Regulate precursors of secondary PM (NOx, ROG, SO2, NH3), and see them as cumulative with local sources	District
16	Policy	Identify near-term actions, and roll them out early	District
17	Enforcement	Increase staff to implement/enforce Rule 11-18	District
18	Enforcement	Devote more staff to risk assessment for air toxics programs like Rule 11-18	District
19	Planning	Identify problematic local sources and deal with them faster	District
20	Permitting	Take into account cumulative impact in permitting	District



PM Symposium: Evaluation of Potential Actions (DRAFT, For Discussion Only)

Number	Category	Potential Actions	Authority	Council Member [NAME]			
				Impact	Agreement	Timing	Top 5
1	Planning	Establish goal for PM reductions below current standard (8-10 ug/m3)	District	L	Y	<1yr	1
2	Regulations	Set more stringent state PM standards	State	L	Y	<3yr	3
3	Planning	Classify undifferentiated PM as toxic air contaminant	State	L	Y	<3yr	
4	Planning	Improve emission estimation methods for emerging source categories (e.g., tires & brakes, road dust)	State	M	Y	<5yr	
5	Planning	Develop Air District PM plan updated with new information	District	L	Y	<1yr	2
6	Planning	Set improved UFP filtration requirements for on-road vehicles	Federal	M	?	<10yr	
7	Policy	Attack PM from all directions, including regional, local, and hyper-local	District	L	Y	<3yr	
8	Planning	Include sources that have slipped through cracks before in air toxics programs	District	M	Y	<3yr	
9	Air Quality	Make air quality data more accessible and closer to real time	District	M	Y	<1yr	
10	Planning	Reassess need to regulate smaller sources not of regional significance	District	M	Y	<1yr	
11	Planning	Take aggressive action to reduce PM, additional PM reduction in PM results in additional improvement in public health	District	L	Y	<3yr	
12	Planning	No single answer, no silver bullet, rather silver buckshot	District	L	Y	<1yr	
13	Planning	Consider children and low SES groups especially	District	M	Y	<1yr	
14	Planning	Factor in secondary PM, since nearly half (47%) of PM is secondary, formed in the air by photochemical processes	District	L	Y	<3yr	
15	Planning	Regulate precursors of secondary PM (NOx, ROG, SO2, NH3), and see them as cumulative with local sources	District	L	Y	<3yr	
16	Policy	Identify near-term actions, and roll them out early	District	L	Y	<1yr	4
17	Enforcement	Increase staff to implement/enforce Rule 11-18	District	M	?	<3yr	
18	Enforcement	Devote more staff to risk assessment for air toxics programs like Rule 11-18	District	S	?	<1yr	
19	Planning	Identify problematic local sources and deal with them faster	District	L	Y	<1yr	
20	Permitting	Take into account cumulative impact in permitting	District	M	?	<3yr	



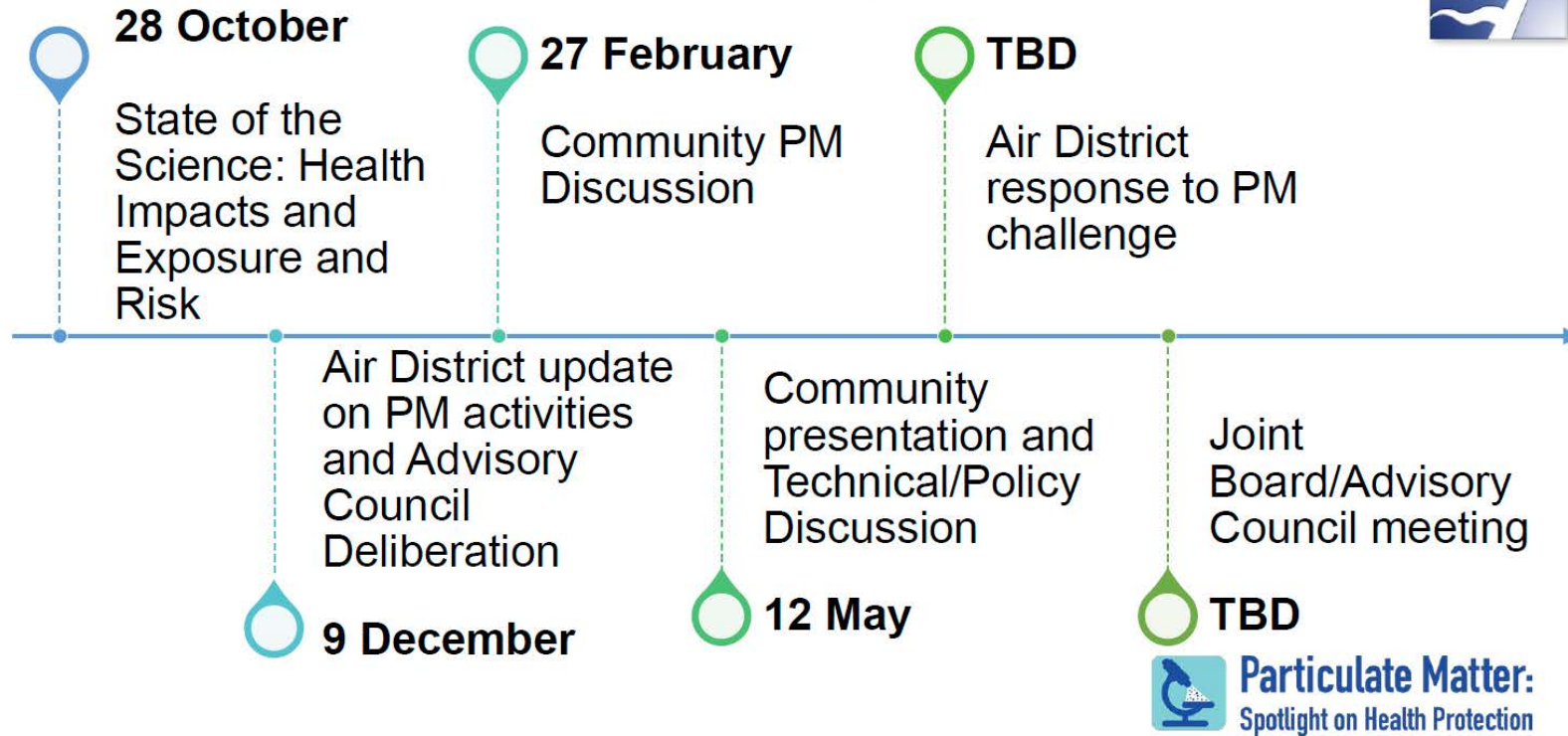
PM Symposium: Next Steps

- Further input from **stakeholders**
- Compilation and analysis of **policy/regulatory options**
- Development of **recommendations**
- **Presentation** to Board and Staff



PM Symposium: Next Steps

PM Symposium Timeline



*Advisory Council Meeting
May 12, 2020*

Bay Area Air Quality Management District



Particulate Matter:
Spotlight on Health Protection

2





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AGENDA: 21

Proposed Amendments to Regulation 3, Fees

**Board of Directors Special Meeting
June 3, 2020**

**Damian Breen
Deputy Air Pollution Control Officer**

Outline



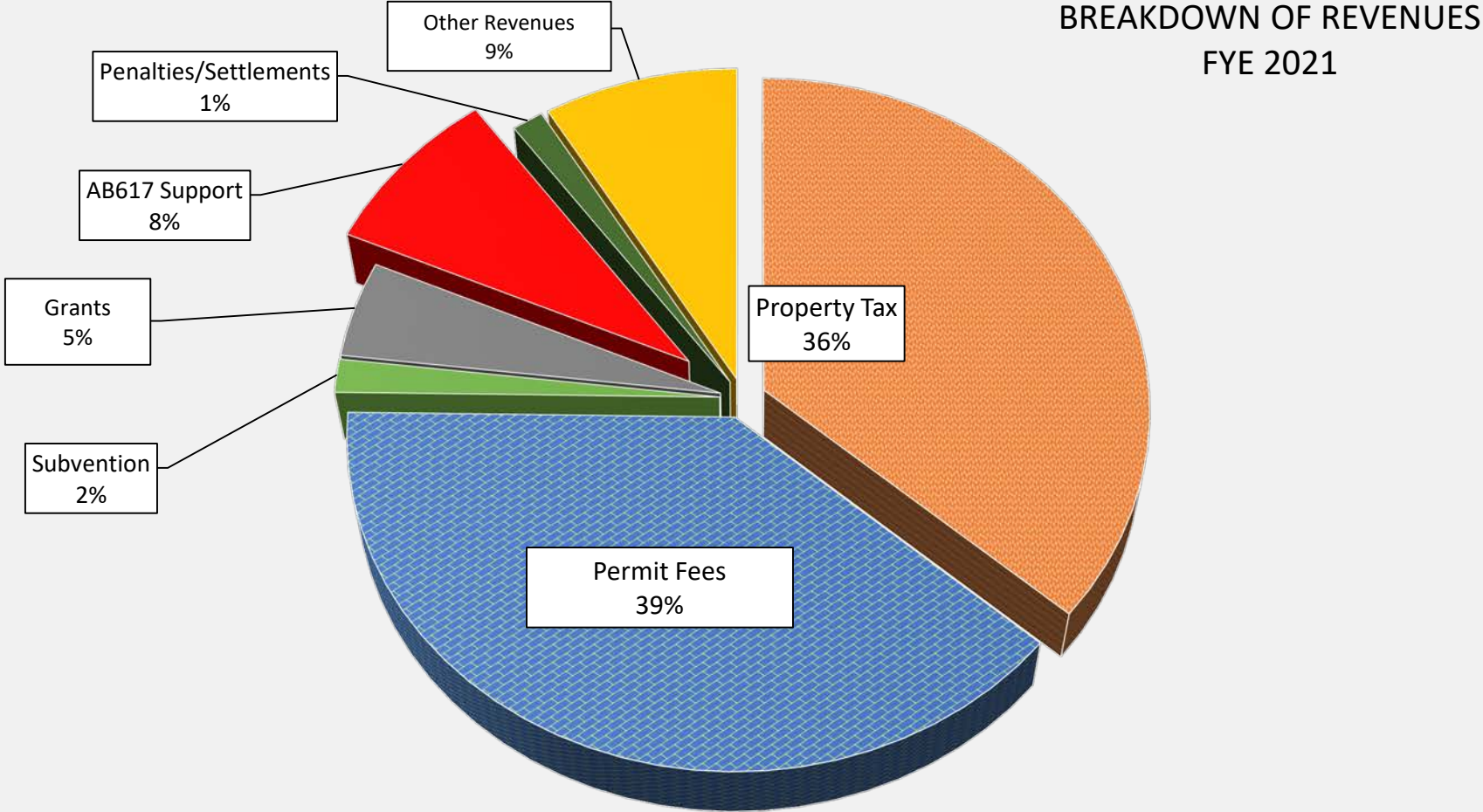
1. Cost Recovery Background
2. Pre-Pandemic Fee Proposal
3. Budget and Finance Committee Process
4. Current Fees Proposal
5. Public Comments
6. Rule Development Process
7. Recommendation

Cost Recovery Background



- Air District has authority to assess fees to recover the reasonable costs of regulating stationary sources
- Board of Directors set goal of increasing cost recovery to a minimum of 85%
- Fee amendments will be made in consideration of cost recovery analyses conducted at the fee schedule-level
- Filling vacancies and new/enhanced programs reduce cost recovery
- Cost recovery has gone from 65% in 2011 to 86% in 2019

Cost Recovery Background, cont.



Pre-Pandemic Fee Proposal



Revenue from Fee Schedule	Change in Fees	Fee Schedules
95 – 110% of costs	3.1% increase* (CPI-W*)	B, D, E, F, M
85 – 94% of costs	7% increase	G3, P
75 – 84% of costs	8% increase	T
50 - 74% of costs	9% increase	G2, H, I, N
Less than 50% of costs	15% increase**	A, G1, G4, K, S, W

*The annual Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) increase from 2018 to 2019.

**2018 Matrix Consulting Group Cost Recovery & Containment Study recommendation.

Note: For Schedules D and E, 3.1% increase is proposed, although cost recovery would have allowed a 7-9% increase. Schedule D covers gas stations and Schedule E covers autobody shops, many of which are small businesses.

Criteria Pollutant and Toxics Emissions Reporting (CTR) Regulation Fee



- Fees based on the number of sources at each facility up to a maximum of \$50,000 per year
- Each facility subject to the CTR Regulation shall pay a fee of:

Number of Permitted Sources per Facility	\$ per Permitted Source
1 to 4	25
5 to 9	75
10 to 14	150
15 to 19	200
20 to 24	250
25 and greater	300

Budget and Finance Committee Process



- Considered 8 Fees Options over 3 Meetings
- Analyzed Staff's Fee Revenue Projections
- Reviewed Economic Outlook for Recovery and Projected Impacts of Shelter in Place
- Reviewed Budget and Fee Contingency Measures

Current Fee Proposal



Enact modified Assembly Bill (AB) 617 Fee for Title V Facilities:

- Fee: 5.7% per facility owner with a \$100,000 cap
- Generates ~ **\$1 million** which equals shortfall in California Air Resources Board allocation to Air District in 2019
- Excludes Small Business
- Proposal in line with Board of Directors request to ensure continued cost recovery from essential facilities
- Supports efforts to get matching funding in Sacramento

Current Fee Proposal



- Section 3-327 Amended to Add Schedule W and Schedule X
- Section 3-336 Revised to reflect changes to Regulation 5 Open Burning
- Clarification of calculation methodology in Schedule N: Toxic Inventory Fees

Comments Received



Western States Petroleum Association (WSPA) and California Council for Environmental and Economic Balance (CCEEB)

- Criteria Pollutant and Toxics Emissions Reporting (CTR) Regulation
 - Seems redundant with Schedule W (Regulation 12-15)
 - Request for explanation why the fee rate is lower for facilities with fewer sources
- AB 617 Community Health Impact Fee
 - Request for explanation on AB 617 expenditures
- Schedule P (Major Facility Review) Fees
 - Request for explanation on Schedule P expenditures

Comments Received, cont.



350 Bay Area:

- Questions the Air District's 85% cost recovery goal
- Air District's critical work across many program areas is growing and suggests that more staff may be needed
- Supports Increases to Schedules A, G3, M, P, and W, as well as, to implement a new AB 617 fee structure on major sources
- If the Air District gets behind on increasing fees, then fee increases will be more painful for companies later. More level and consistent fee increases are requested
- Requests the Board of Directors to amend its cost recovery goal to 100%

Rule Development Process



- Public Workshop and Webcast on February 18, 2020
- March 12, 2020, District staff published in newspapers the notice of Public Hearings required by Health and Safety Code Section 40725
- Public Hearing April 15, 2020
- Budget and Finance Committee – April 22 & 29, 2020 and May 20, 2020
- Project is statutorily exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21080
- Socioeconomic analysis of the proposed amendments to Regulation 3 pursuant to Health & Safety Code section 40728.5 is not required

Recommendations



Recommend the Board of Directors:

- Adopt proposed amendments to Air District Regulation 3: Fees that would become effective on July 1, 2020; and
- Approve the filing of a California Environmental Quality Act (CEQA) Notice of Exemption.



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AGENDA: 22

Public Hearing to Consider Adoption of the Air District's Proposed Budget for Fiscal Year Ending 2021

Board of Directors Special Meeting

June 3, 2020

**Jack P. Broadbent
Executive Officer/APCO**

Proactive Management (Levers)



- Reserves Used for General Fund Expenditures
- Vacancies Unfilled (Staff Reduction Through Attrition)
- Postponed Expenditures
- Deferred Capital Investment
- Initiated Cost Recovery Policy
- Continued Discretionary Funding of Retirement Liabilities

Possible Actions



- *Size of shortfall: \$5 M/yr with State AB 617; \$14 M/yr without AB 617*
- Reserves Used for General Fund Expenditures
 - Currently \$38 M, including \$5 M in designated funds
- Vacancies Unfilled (Staff Reduction Through Attrition)
 - 10 filled seats = \$2 M/yr
- Postponed Expenditures
 - Service and Supplies Budget = \$28 M

Possible Actions (cont.)



- Deferred Capital Investment
 - Improvements to Richmond Headquarters East = roughly \$8 M
- Initiated Cost Recovery Policy
 - 6.4% Fee increase = \$3 M/yr
- Continued Discretionary Funding of Retirement Liabilities
 - Currently \$5 M/yr (expect CalPers obligation to increase by \$4 M FYE 2023)

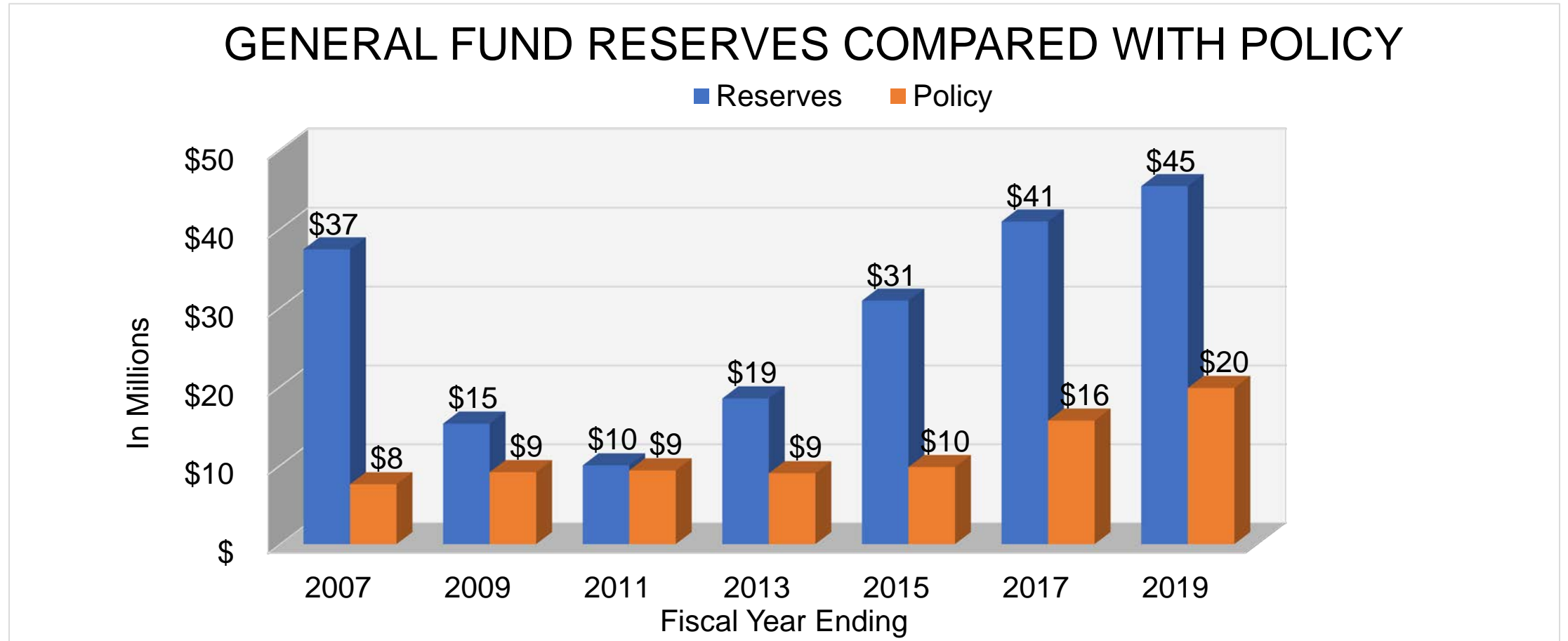
FYE 2021 General Fund Proposed Budget Revisions



FYE 2021 General Fund Proposed Budget

	Million (\$M)
Original Revenues	116.1
Original Use of Reserves	6.0
Total Original Revenues	122.1
Reduce Existing Fees	-12.4
Reduce New Fees	-2.7
Reduce Use of Reserves	-0.8
Reduce Other Revenues	-1.2
Increase Use of Grant Sources	1.5
Revised Revenues:	106.5
Original Expenditures:	122.1
Reduce Personnel Costs	-0.1
Reduce Services & Supplies	-9.5
Reduce Capital Costs	-6.0
Revised Expenditures:	106.5

Actual Reserves & Policy (Excludes Building Proceeds)

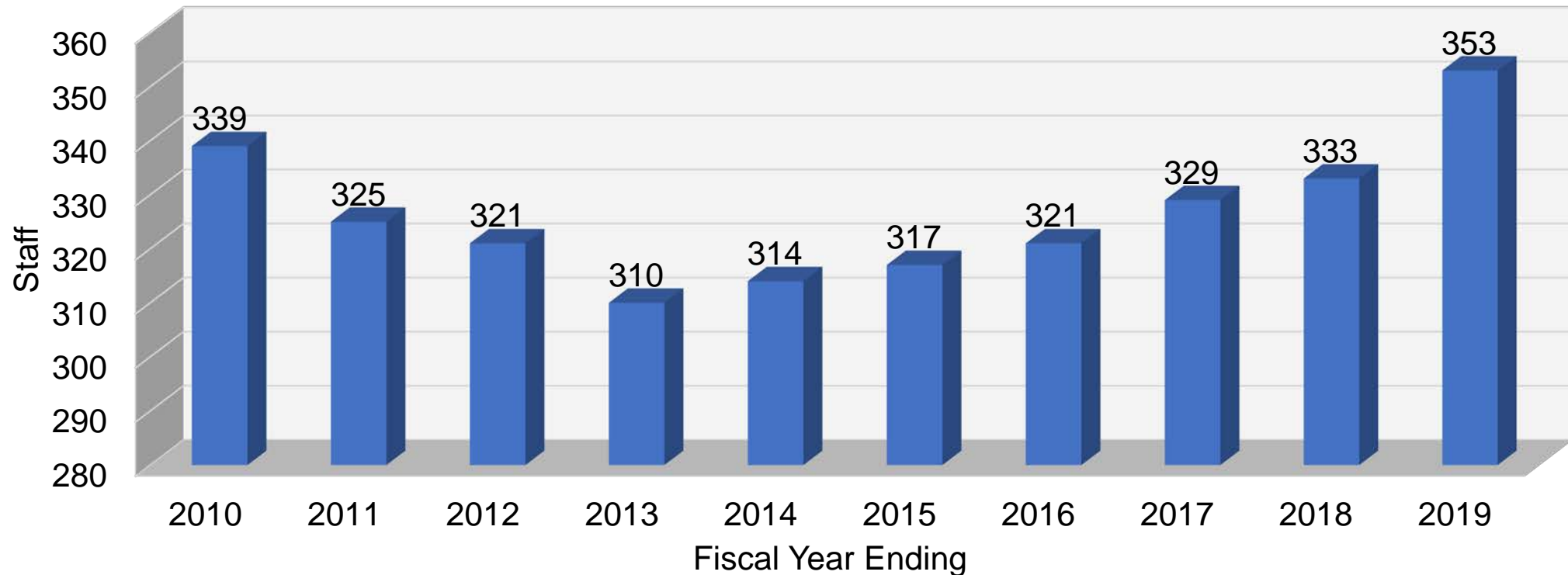


Staffing Trend-Filled Positions

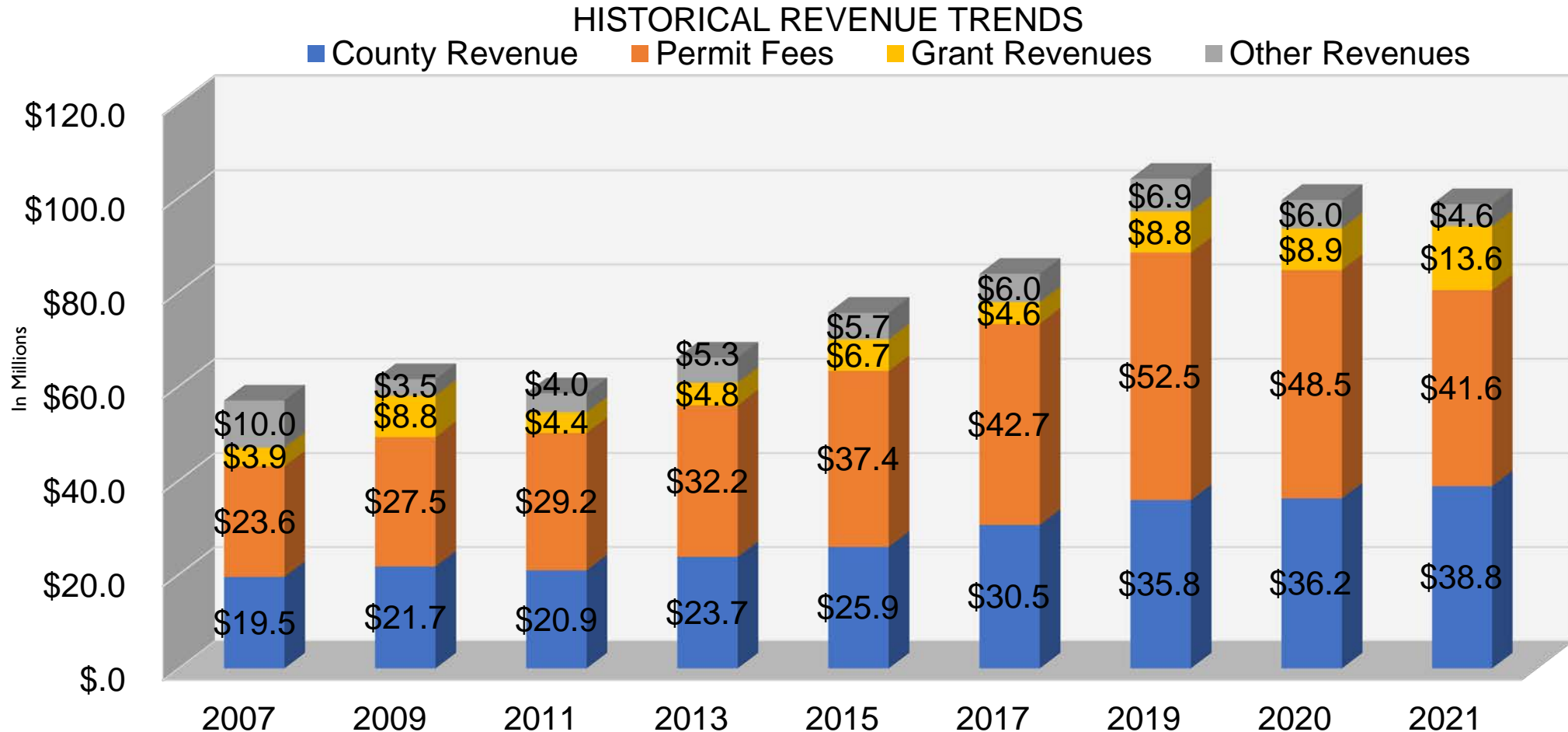


In November 2019, staff requested an additional 10 positions, bringing total approved to 415 Full-Time Equivalent (FTE)

ACTUAL STAFFING LEVELS

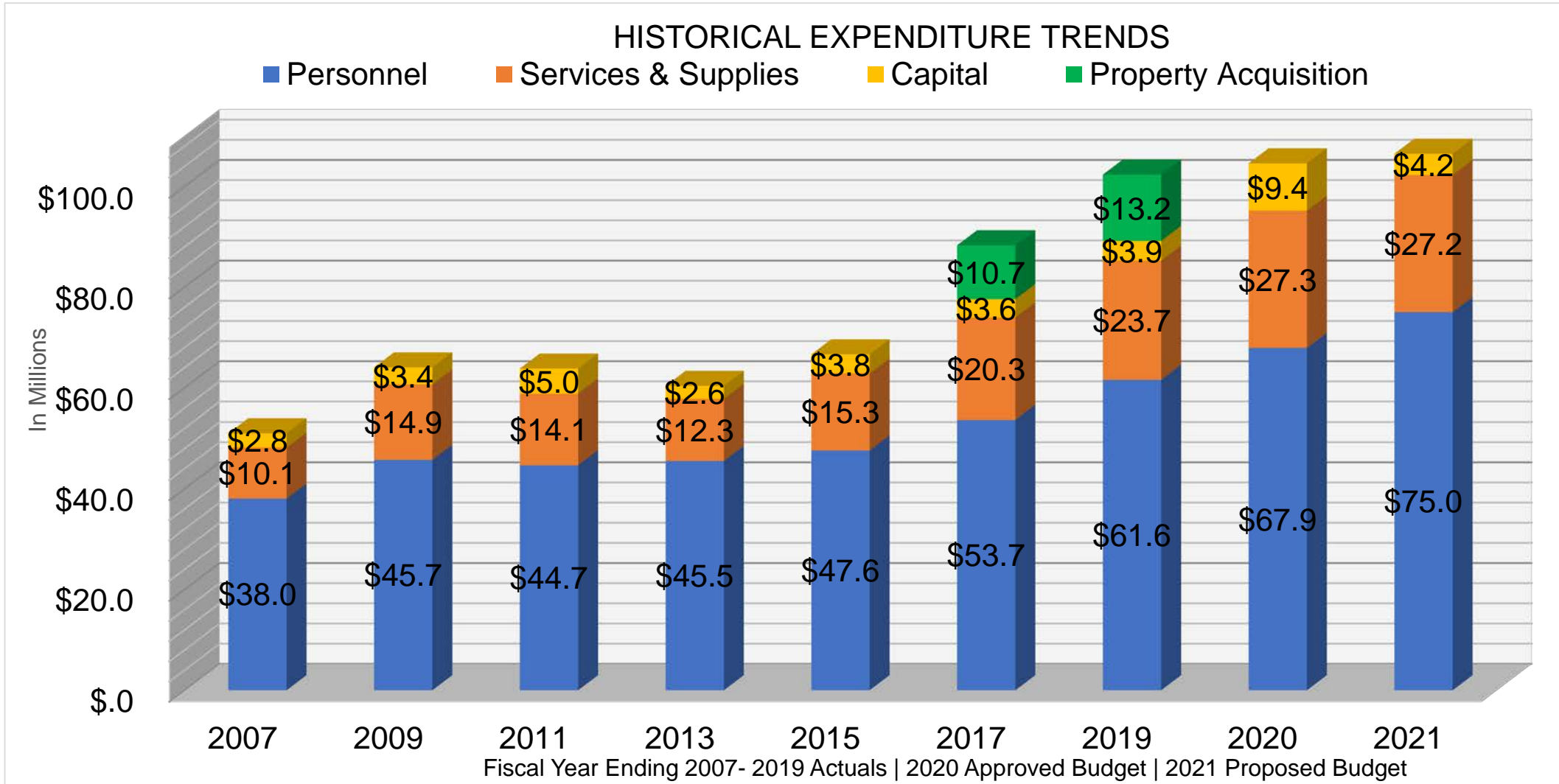


General Fund Revenue Trend



FYE 2007 - 2019 Actual | FYE 2020 Approved Budget | FYE 2021 Proposed Budget

General Fund Expenditure Trend



State Budget Update (2020-2021)



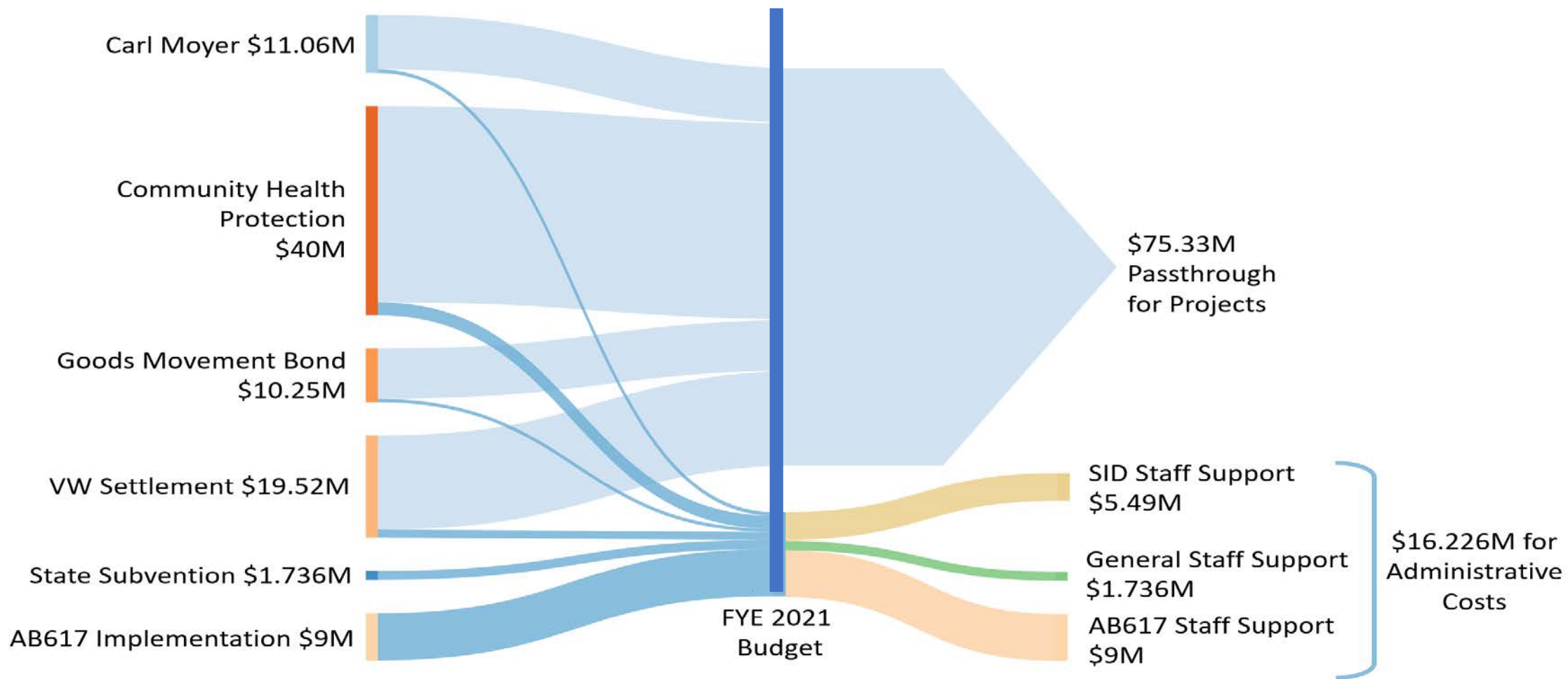
May Revision – Released by the Governor on May 14, 2020

Program	FY 19/20	FY 20/21 (Jan)	FY 20/21 (May)	Impact to FY 21/22
Assembly Bill (AB) 617 - Implementation	\$50M	\$25M	\$0 *	≈ \$9M
AB 617 - Incentives	\$245M	\$200M	\$200M	≈ \$6M
AB 617 - Technical Assistance	\$10M	\$10M	\$0 *	\$0
Clean Vehicle Rebate	\$238M	\$125M	\$0 *	\$0
Clean Truck and Bus	\$182M	\$150M	\$0 *	\$0
Ag Diesel Engine Replacement	\$65M	\$50M	\$50M	Marginal
Clean Cars for All/School Bus	\$65M	\$75M	\$0 *	\$5M
Woodstove Replacement	\$0	\$0	\$0	\$0
AB 836 (Wicks) Clean Air Centers	\$0	\$5.5M	\$0	Up to \$5.5M

*\$0 * indicates \$0 in funding unless Cap and Trade Auction revenues for FY 20/21 exceed roughly \$2.5B in combined proceeds.*

Next Major Milestone: June 15, 2020 Deadline

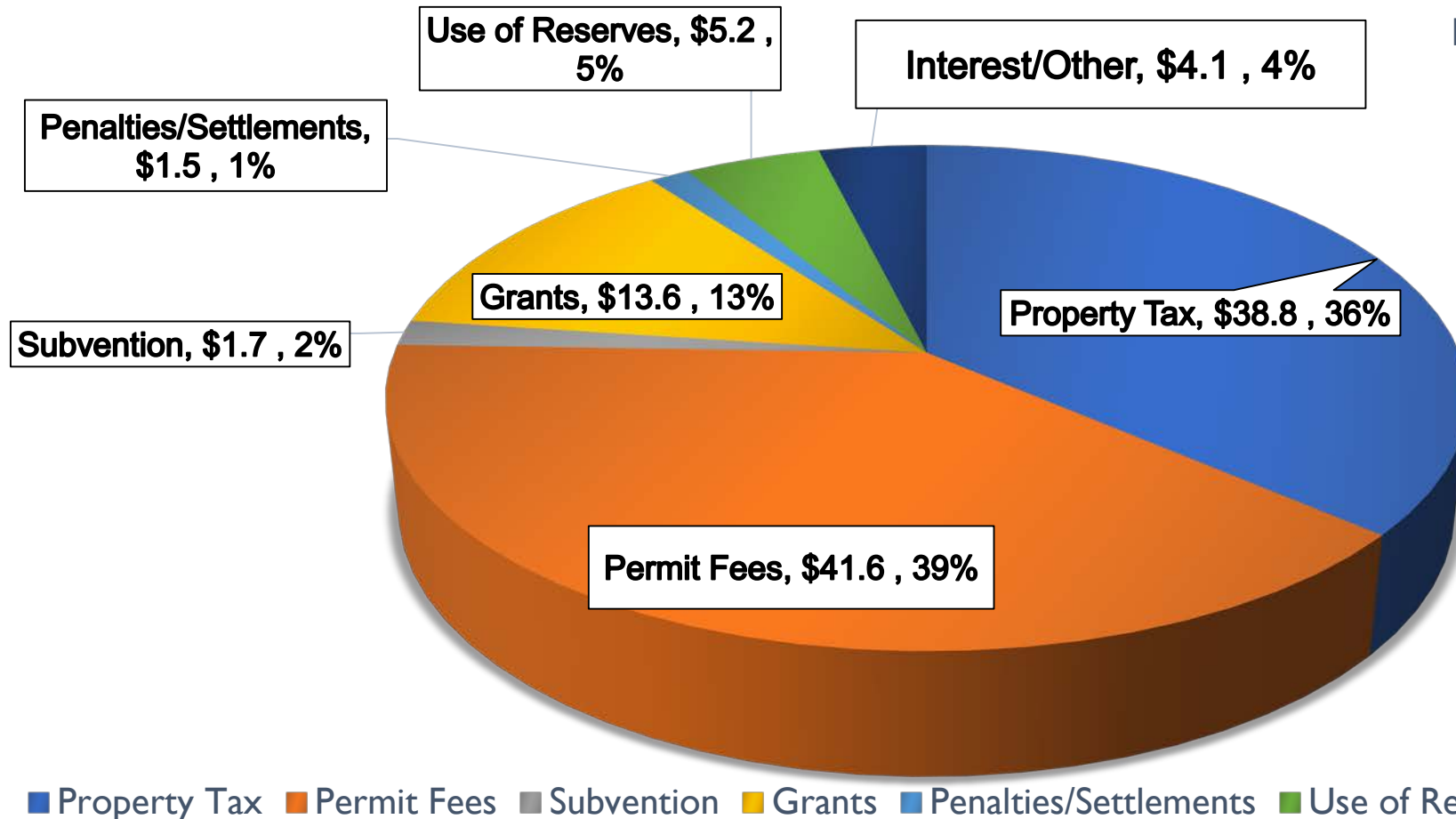
State Revenues in FYE 2021



General Fund Revenue Sources FYE 2021 Proposed Budget



Breakdown of Revenues
FYE 2021 (in Millions)



Clean Air Protection Program Implementation Grants



17CAPP3: \$4.8 million – **fully expended**



18CAPP3: \$10.0 million



Forecasted full expenditure
by 1st Quarter FYE 2021

Grant Funds Available
for expenditure until
April 2021

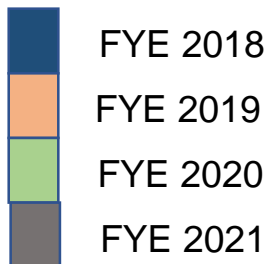
19CAPP3: \$9.0 million



Forecasted full expenditure
by 4th Quarter FYE 2021

Grant Funds available
for expenditure until
April 2022

BAAQMD Budget Year



Categories for the AB 617 Budget



AB 617 Work Area by Funding Source	Labor Costs	Contracts	Total
Not Recoverable	\$ 1,568,250	\$ 675,000	\$ 2,243,250
Community capacity building, implement West Oakland plan, improve emissions estimates for wood smoke and restaurants			
Partially Recoverable	\$ 3,017,500	\$ 4,980,000	\$ 7,997,500
Community-scale monitoring, improved modeling, source apportionment, develop Richmond-San Pablo plan			
Grand Total	\$ 4,585,750	\$ 5,655,000	\$ 10,240,750

FYE 2021 Revised Proposed Budget Overview (cont.)



- Budget 405 of the 415 FTE
- No Increase in Services and Supplies
- Addresses Retirement Liabilities
- Includes 3.1% Cost of Living Adjustment (COLA)

General Fund Reserves



Reserves Policy: 20% of
General Fund Budget

FYE 2021 Budget of \$105 M
= \$21 M

FYE 2021 Projected Reserve
Designations = \$27 M

FYE 2021 Available Reserves
= \$6 M

Probable Reserve Designations *	
	\$M
Balance at June 30, 2019	45
<u>Less: Designations</u>	
Pension Liability	2
Woodsmoke Grants	1
Revolving Loan Program	3
Economic Contingency (20% of Budget)	21
Total Designations	27
<i>*Designations subject to change at Board's Direction</i>	
<u>Use of Reserves in FY 2020 and 2021</u>	
Legal Settlement	3
Richmond Facility Improvements	4
To Balance FY2021 Budget	5
Total Use of Reserves	12
AVAILABLE GF RESERVES	6

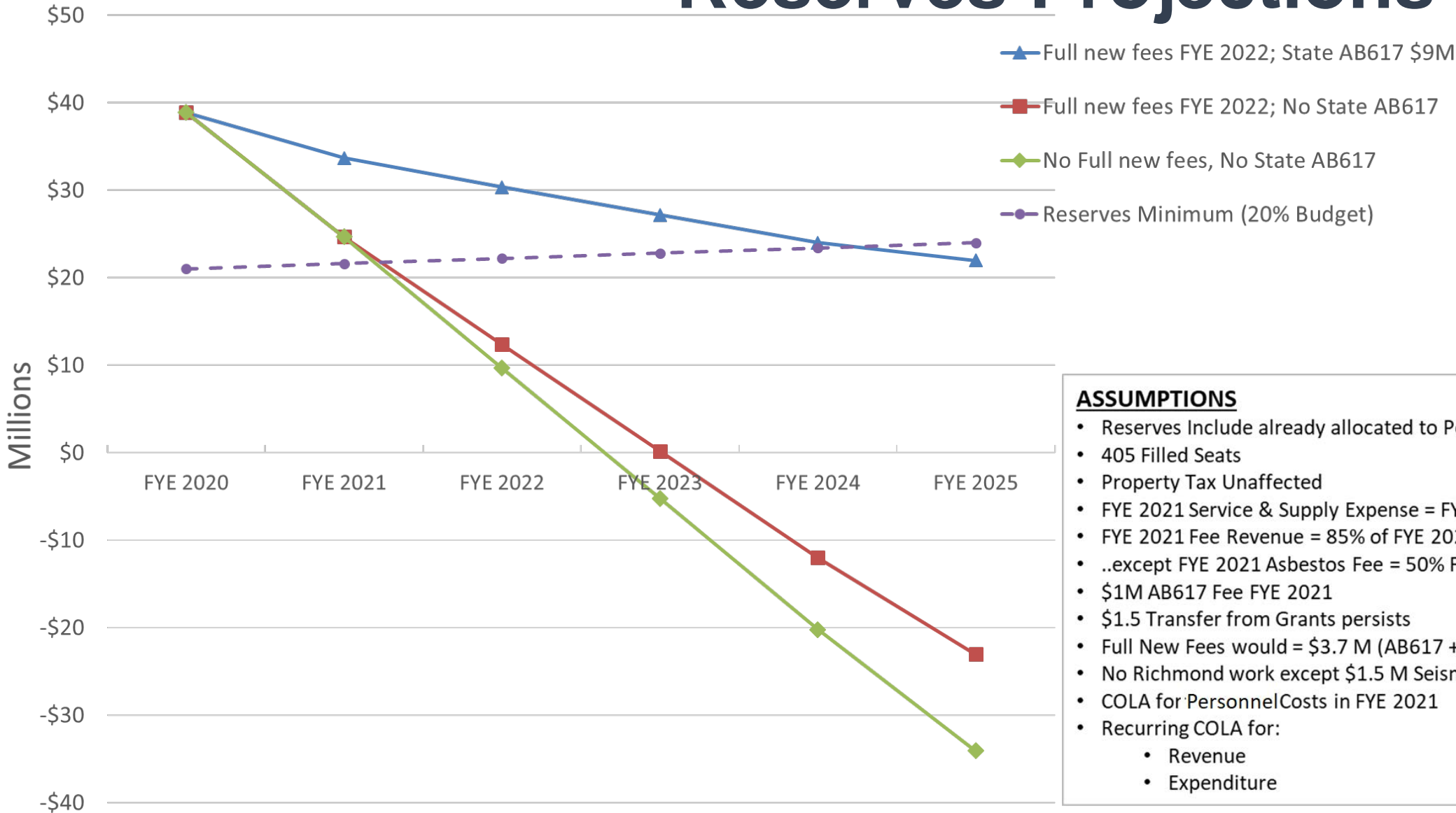
Reserves Projections Assumptions



ASSUMPTIONS

- Reserves Include already allocated to Pension and TIO Loans
- 405 Filled Seats
- Property Tax Unaffected
- FYE 2021 Service & Supply Expense = FYE 2020
- FYE 2021 Fee Revenue = 85% of FYE 2020 Fee Revenue...
- ..except FYE 2021 Asbestos Fee = 50% FYE 2020 Asbestos
- \$1M AB617 Fee FYE 2021
- \$1.5 Transfer from Grants persists
- Full New Fees would = \$3.7 M (AB617 + CTR)
- No Richmond work except \$1.5 M Seismic
- COLA for Personnel Costs in FYE 2021
- Recurring COLA for:
 - Revenue
 - Expenditure

Reserves Projections



- ASSUMPTIONS**
- Reserves Include already allocated to Pension and TIO Loans
 - 405 Filled Seats
 - Property Tax Unaffected
 - FYE 2021 Service & Supply Expense = FYE 2020
 - FYE 2021 Fee Revenue = 85% of FYE 2020 Fee Revenue...
 - ..except FYE 2021 Asbestos Fee = 50% FYE 2020 Asbestos
 - \$1M AB617 Fee FYE 2021
 - \$1.5 Transfer from Grants persists
 - Full New Fees would = \$3.7 M (AB617 + CTR)
 - No Richmond work except \$1.5 M Seismic
 - COLA for Personnel Costs in FYE 2021
 - Recurring COLA for:
 - Revenue
 - Expenditure

FYE 2021 Proposed Budget Summary



- Budget Balanced with use of \$5 M from Reserves
- 405 of 415 Budgeted Positions
- No Amendment to Existing Fee Schedules
- Propose New Fee Schedule (AB 617)
- \$1 M Annual Contribution for Pension
- \$4 M Annual Contribution for OPEB

Recent Major Economic Indicators – United States



- US GDP change for 2020Q1 is -4.8%
 - 2019 Q4 is +2.1
- US unemployment rate for April, 2020 is 14.7%
 - March 2020 is 4.4%
- US inflation rate (12 months CPI-U) in April, 2020 is 0.3%
 - April 2019 (12 months CPI-U) inflation rate is 2.0%
- US PPI index (reflecting demand) in April, 2020 is -0.3%
 - April 2019 PPI index is 2.4%
- US Federal Budget Deficit in April 2020 is -\$1,480 Billion
 - April 2019 Federal Budget Deficit is -\$531 Billion

Selected California Economic Indicators



- California unemployment rate in March* 2020 is 5.3%
 - March 2019 unemployment rate is 4.3%
- In March 2020 (reflecting mostly February activity), California State revenue was 1% above projections – showing robust economic growth pre-pandemic
- California inflation (12 month CPI-U) in April 2020 is 1.3%
 - April 2019 inflation (12 month CPI-U) is 3.0%
- Total claims for unemployment (last 8 weeks): 4.1 million
- Total benefits paid out (last 8 weeks): \$8.9 billion

*April data for California will be released on May, 22, 2020 – full month's effects of COVID-19

Current Projections



Most economists currently (as of May 14, 2020) expect the following*:

- US unemployment rate to hit 17% in June 2020;
- US GDP will change by -32% in 2020 Q2 (compared to 2020 Q1);
- Economic recovery will start in the 2nd half of 2020:
 - Current projections are for +9% in 2020 Q3
 - And for +6.9% in 2020 Q4; and
- Full year economic growth is currently estimated to be -6.6% in 2020

*Wall Street Journal Survey of Economists, May 13, 2020

Current Projections (cont.)



In addition to these, macroeconomic problems:

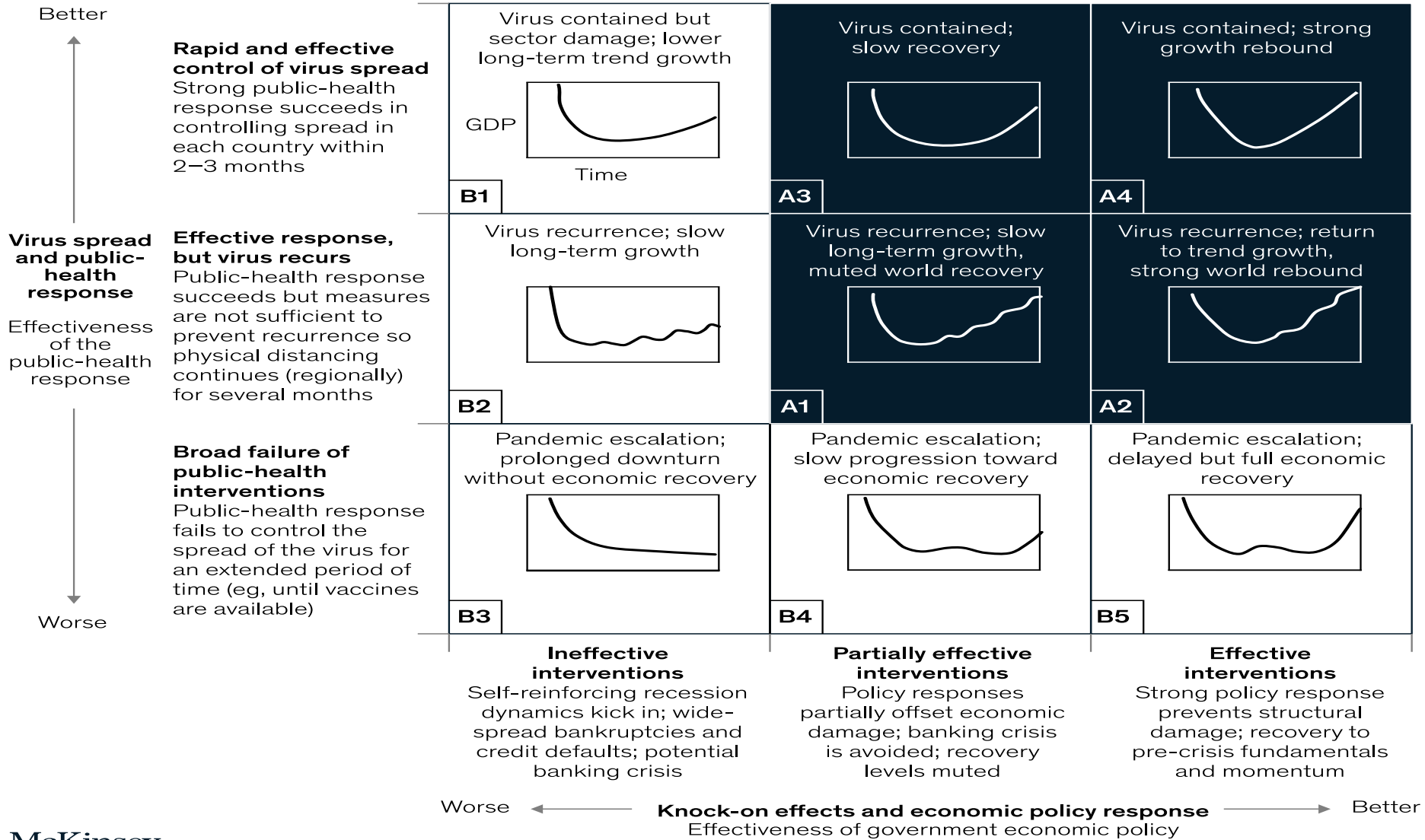
- Growing problems in real estate, as millions are unable to pay their mortgages and rents;
- Low interest rates are not helpful to fuel real estate demand when millions are unemployed; and
- Leads to increasing inequality, as eventually cheaper housing will be bought up by investors

*Wall Street Journal Survey of Economists, May 13, 2020

Scenarios for the economic impact of the COVID-19 crisis.




GDP impact of COVID-19 spread, public-health response, and economic policies



Conclusions



- Virtually no economist currently expects a V-shaped recovery; most projections now call for a swoosh-type of a recovery: 
- It means that a decline is followed by a very slow, painful, and uneven recovery
- The pace of recovery is also heavily dependent on the type of industry, with face-to-face industries taking much longer to recover, whereas construction, business supplies, and data centers should get back to normal faster

Recommendation



Recommend the Board of Directors:

- Adopt the resolution to approve the Budget for Fiscal Year Ending 2021 and various budget related actions.

Policy Violence: The Root Cause of Health Inequity

**Bay Area Air Quality Management District
Board Meeting
June 3, 2020**

**Tony Iton, M.D., J.D., MPH
The California Endowment**

Health is Behavioral

Health is Transactional

(~frequency & quality of medical services)

Health is Genetic

Individual Frames

Health is political

“The struggle over the allocation of scarce and precious social goods”

Power matters, individual and
community-level



Health ≠ Health care


Where You Live Matters

It Matters A LOT!

The background features several sets of concentric circles in a lighter shade of blue, resembling ripples in water, scattered across the bottom half of the slide.

Health is an Investment

Countries with strong social compacts
appear to have better health

A decorative graphic consisting of several sets of concentric circles, resembling ripples in water, located in the bottom right corner of the slide. The circles are light blue and vary in size and opacity, creating a subtle background element.

IN THIS TEMPLE
AS IN THE HEARTS OF THE PEOPLE
FOR WHOM HE SAVED THE UNION
THE MEMORY OF ABRAHAM LINCOLN
IS ENSHRINED FOREVER



FOUR SCORE AND SEVEN YEARS
AGO OUR FATHERS BROUGHT FORTH
ON THIS CONTINENT A NEW NATION
CONCEIVED IN LIBERTY AND DEDICA-
TED TO THE PROPOSITION THAT ALL
MEN ARE CREATED EQUAL.

NOW WE ARE ENGAGED IN A GREAT
CIVIL WAR TESTING WHETHER THAT
NATION OR ANY NATION SO CON-
CEIVED AND SO DEDICATED CAN LONG
ENDURE. WE ARE MET ON A GREAT
BATTLEFIELD OF THAT WAR. WE HAVE
COME TO DEDICATE A PORTION OF
THAT FIELD AS A FINAL RESTING
PLACE FOR THOSE WHO HERE GAVE
THEIR LIVES THAT THAT NATION
MIGHT LIVE. IT IS ALTOGETHER FIT-
TING AND PROPER THAT WE SHOULD
DO THIS. BUT IN A LARGER SENSE
WE CAN NOT DEDICATE—WE CAN NOT
CONSECRATE—WE CAN NOT HALLOW—
THIS GROUND. THE BRAVE MEN LIV-
ING AND DEAD WHO STRUGGLED HERE
HAVE CONSECRATED IT FAR ABOVE
OUR POOR POWER TO ADD OR DETRACT.
THE WORLD WILL LITTLE NOTE NOR
LONG REMEMBER WHAT WE SAY HERE
BUT IT CAN NEVER FORGET WHAT THEY
DID HERE. IT IS FOR US THE LIVING
RATHER TO BE DEDICATED HERE TO
THE UNFINISHED WORK WHICH THEY
WHO FOUGHT HERE HAVE THUS FAR
SO NOBLY ADVANCED. IT IS RATHER FOR
US TO BE HERE DEDICATED TO THE
GREAT TASK REMAINING BEFORE US—
THAT FROM THESE HONORED DEAD
WE TAKE INCREASED DEVOTION TO
THAT CAUSE FOR WHICH THEY GAVE THE
LAST FULL MEASURE OF DEVOTION—
THAT WE HERE HIGHLY RESOLVE THAT
THESE DEAD SHALL NOT HAVE DIED IN
VAIN—THAT THIS NATION UNDER GOD
SHALL HAVE A NEW BIRTH OF FREEDOM—
AND THAT GOVERNMENT OF THE PEOPLE
BY THE PEOPLE FOR THE PEOPLE SHALL
NOT PERISH FROM THE EARTH.

WOULD ACCEPT WAR RATHER
ISH. AND THE WAR CAME.
HE WHOLE POPULATION WERE
OT DISTRIBUTED GENERAL-
ON BUT LOCALIZED IN THE
F IT. THESE SLAVES CONSTI-
AND POWERFUL INTEREST.
HIS INTEREST WAS SOMEHOW
WAR. TO STRENGTHEN PER-
ND THIS INTEREST WAS THE
THE INSURGENTS WOULD
EN BY WAR WHILE THE GOV-
NO RIGHT TO DO MORE
THE TERRITORIAL ENLARGE-
IER PARTY EXPECTED FOR
ENITUDE OR THE DURATION
EADY ATTAINED. NEITHER
HE CAUSE OF THE CONFLICT
OR EVEN BEFORE THE CON-
CEASE. EACH LOOKED FOR
AND A RESULT LESS FUN-
DUNDING. BOTH READ THE
Y TO THE SAME GOD AND
AID AGAINST THE OTHER.
GE THAT ANY MEN SHOULD
T GOD'S ASSISTANCE IN
READ FROM THE SWEAT OF
BUT LET US JUDGE NOT
JGED. THE PRAYERS OF BOTH
VERED. THAT OF NEITHER
D FULLY. THE ALMIGHTY
SES. "WOE UNTO THE WORLD
FOR IT MUST NEEDS BE
IE BUT WOE TO THAT MAN
NSE COMETH."

IF WE SHALL SUPPOSE THAT AMERICAN
SLAVERY IS ONE OF THOSE OFFENSES
WHICH IN THE PROVIDENCE OF GOD MUST
NEEDS COME BUT WHICH HAVING CON-
TINUED THROUGH HIS APPOINTED TIME HE
NOW WILLS TO REMOVE AND THAT HE
GIVES TO BOTH NORTH AND SOUTH THIS
TERRIBLE WAR AS THE WOE DUE TO THOSE BY
WHOM THE OFFENSE CAME SHALL WE DIS-
CERN THEREIN ANY DEPARTURE FROM
THOSE DIVINE ATTRIBUTES WHICH THE
BELIEVERS IN A LIVING GOD ALWAYS ASCRIBE
TO HIM. FONDLY DO WE HOPE—FERVENTLY
DO WE PRAY—THAT THIS MIGHTY SCOURGE
OF WAR MAY SPEEDILY PASS AWAY. YET IF
GOD WILLS THAT IT CONTINUE UNTIL ALL
THE WEALTH PILED BY THE BONDSMAN'S
TWO HUNDRED AND FIFTY YEARS OF UN-
REQUITED TOIL SHALL BE SUNK AND
UNTIL EVERY DROP OF BLOOD DRAWN WITH
THE LASH SHALL BE PAID BY ANOTHER
DRAWN WITH THE SWORD AS WAS SAID THREE
THOUSAND YEARS AGO SO STILL IT MUST
BE SAID "THE JUDGMENTS OF THE LORD
ARE TRUE AND RIGHTEOUS ALTOGETHER."
WITH MALICE TOWARD NONE WITH CHARITY
FOR ALL WITH FIRMNESS IN THE RIGHT AS
GOD GIVES US TO SEE THE RIGHT LET US
STRIVE ON TO FINISH THE WORK WE ARE IN
TO BIND UP THE NATION'S WOUNDS TO CARE
FOR HIM WHO SHALL HAVE BORNE THE BAT-
TLE AND FOR HIS WIDOW AND HIS ORPHAN—
TO DO ALL WHICH MAY ACHIEVE AND CHER-
ISH A JUST AND LASTING PEACE AMONG
OURSELVES AND WITH ALL NATIONS.

Abraham Lincoln

- “Our republican system was meant for a homogeneous people. As long as blacks continue to live with the whites they constitute a threat to the national life. Family life may also collapse and the increase of mixed breed bastards may some day challenge the supremacy of the white man.”



EXCLUSION



Narrative of **Exclusion**

- Intentionally *dehumanizes* target. [*“They’re bringing drugs. They’re bringing crime. They’re rapists.”* OR *“Makers vs. Takers”*, OR *“the 47%”*, OR *Welfare Queen, super-predator, crack-baby.....*]
- Exaggerates the notion of scarcity. Posits a **zero-sum competition** for resources between groups.
- Looks to the past with nostalgia and to the future with fear.

Narrative of **Inclusion**

- Changes the narrator allowing people to tell their own story, speaking to shared humanity.
- Broadens the lens to show mutual dependence and interconnected fates. Highlights abundance.
- Looks to the past with realism and to the future with purpose and hope.

Why Place Matters

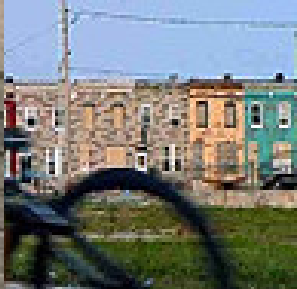




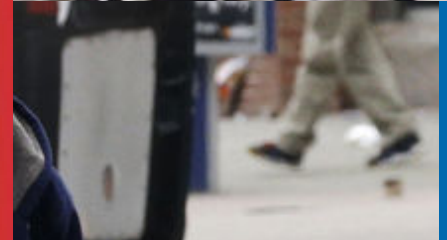
Canadian Social Contract

- Universal health insurance-Canada Health Act
- Universal dental care to age 10
- Universal child care benefit
- Paid sick leave and vacation
- State of the art public transportation
- Highly subsidized post secondary education
- High quality community resources-parks, sports leagues, libraries, community centers





LIFE



215 cases of HIV linked to illegal drugs

Many cases in Scott County are traced to people injecting Opana, a prescription painkiller similar to heroin and sold in pill form.



Oxymorphone
An opioid painkiller sold under names



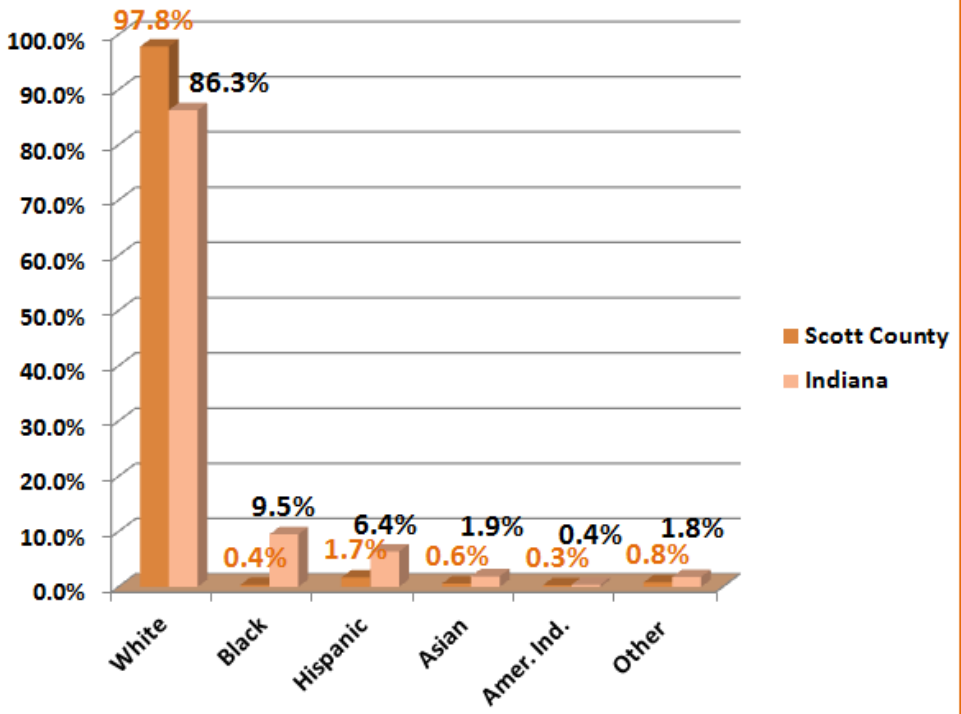
Opana is a hard pill that is difficult to crush and dissolve for injection. For that reason, users find larger needles are necessary.



To slow the rise in HIV, Indiana has



Racial demographics of Scott County and Indiana (2013)

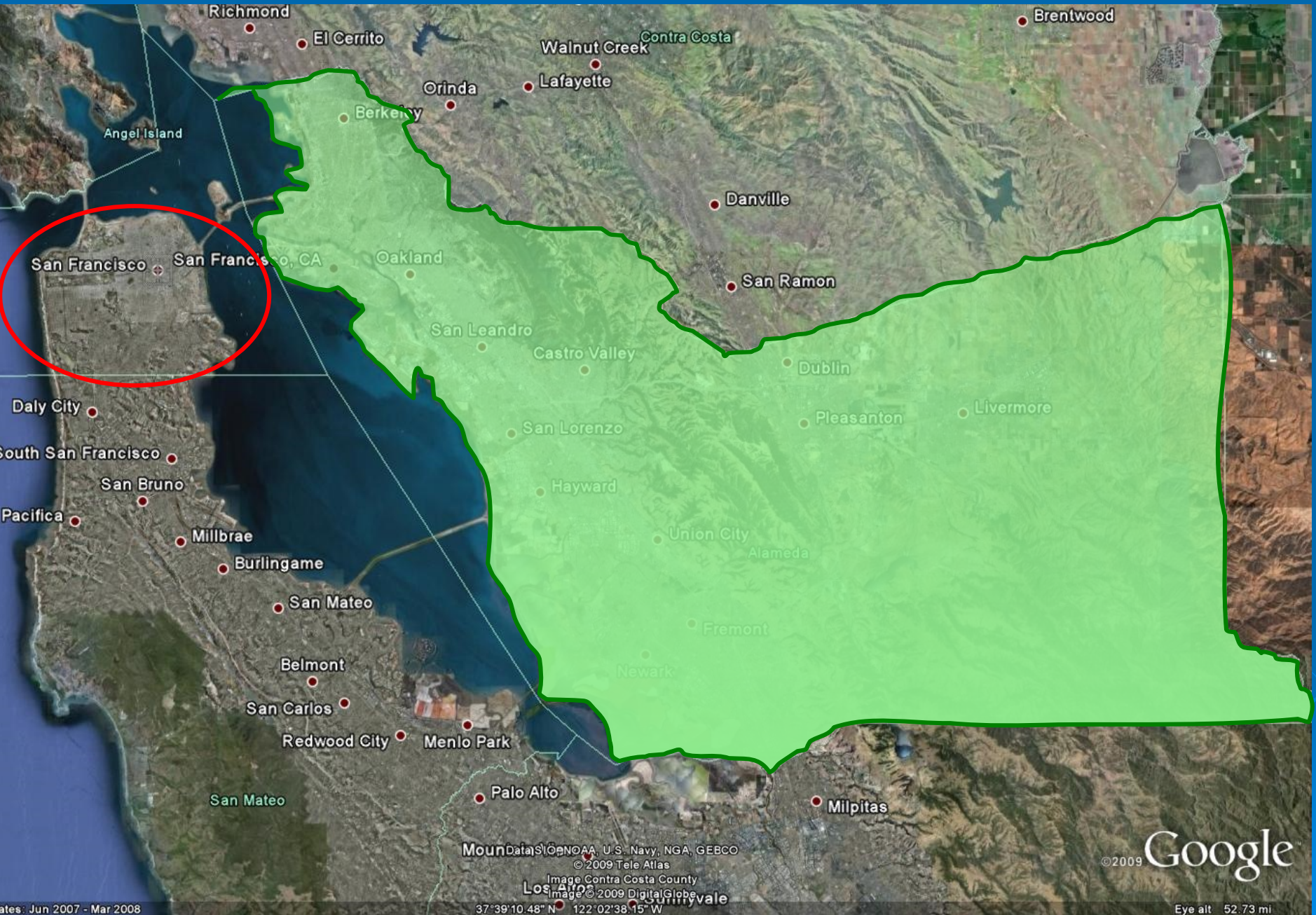




**AMERICA'S
SOCIAL
COMPACT**



**Does Your Zip Code
Matter More Than
Your *Genetic* Code ?**





MARRIETTE FRANCES
DIED 27th JULY 1881
AGED 61 YEARS
ANNE SARAH
DIED 11th AUGUST 1881
AGED 61 YEARS
ANNE SARAH
WIFE OF WILLIAM SMITH
DIED 11th AUGUST 1881
AGED 61 YEARS

ANNE
WIFE OF W. S. JOHNSON
DIED 10th JULY 1881
AGED 76 YEARS

Blank gravestone

Blank gravestone

Blank gravestone

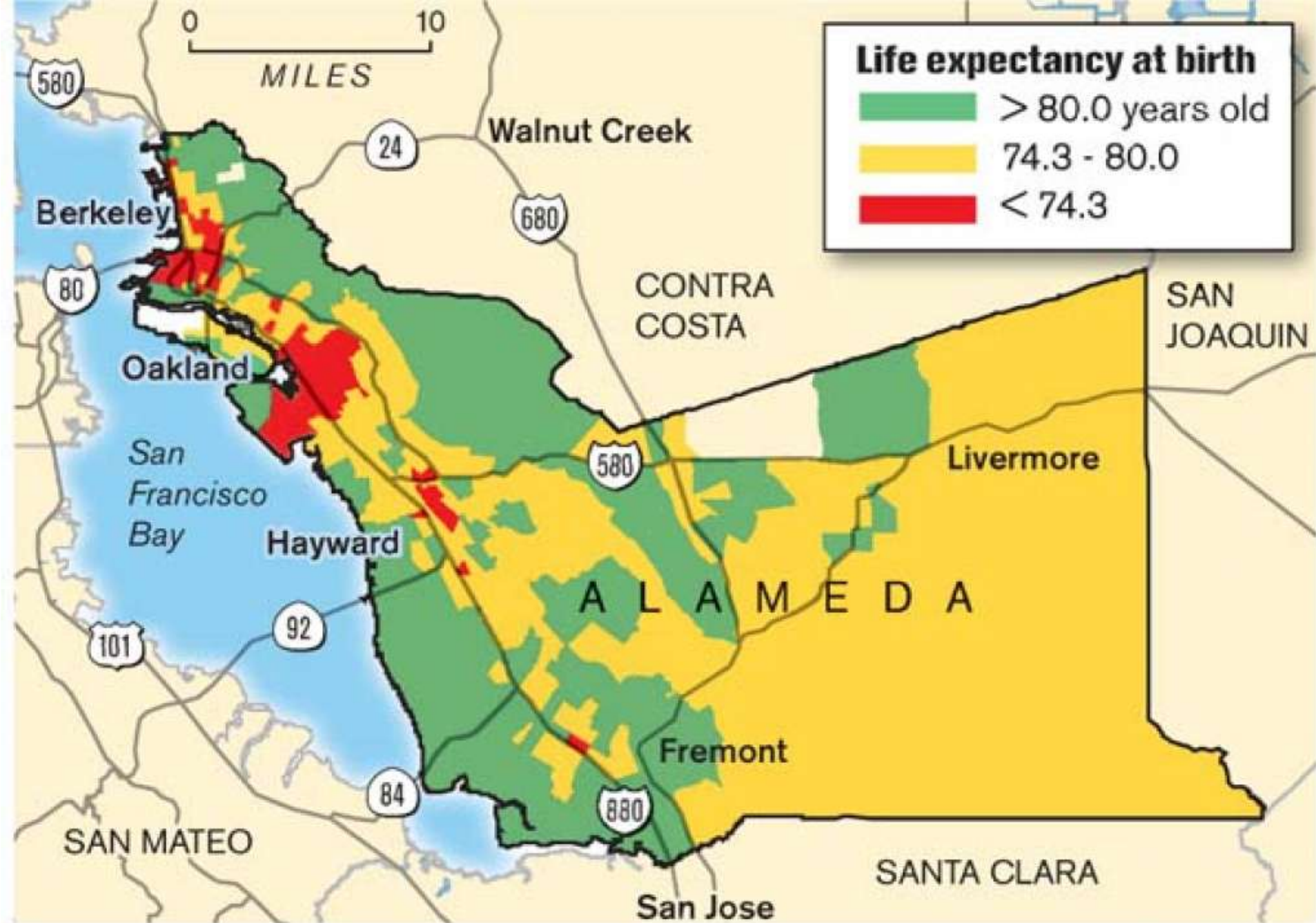


SACRED TO THE MEMORY OF
CATHERINE
THE DEARLY BELOVED WIFE OF
JOHN SMITH
OF POWNALL ROAD, ST. PAUL'S
WHO DEPARTED THIS LIFE
AUGUST 1st 1905
AGED 74 YEARS
FIFTY YEARS YET SHE HAD ONLY
TWO MONTHS TO LIVE AND SHE
SAID SHE WOULD LIVE LONG ENOUGH
TO BE WITH HER HUSBAND
IN THE HEAVENS

PRIVATE GRAVE OF J. & C. SMITH
WILLIAM GIBBS
ALSO
JOHN SMITH
HUSBAND OF THE ABOVE
WHO DEPARTED THIS LIFE
MAY 5th 1905

IN REMEMBRANCE
MY DEAR HUSBAND
LEONARD SIMPSON
WHOM GOD CALLED HOME JUNE 7th 1906
AGED 68 YEARS
"SAFE HOME" SAFE HOME AT LAST
"FOR EVER WITH THE LORD."
ALSO OF
JANE
DEVOTED WIFE OF THE ABOVE
CALLED HOME AUGUST 20th 1910
AGED 73 YEARS
"SLEEP ON, BELOVED"
ALSO IN REMEMBRANCE
HARBE LEGG
DIED NOVEMBER
1881

S. BIRD
IN MEMORY OF
MILY ELIZABETH
DEAR WIFE OF
A. J. MAHON
DAUGHTER OF
JOSEPH & ELIZABETH GRAY
DIED 27th AUGUST 1881

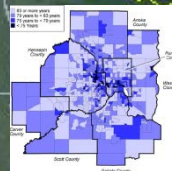


Sources: ESRI, Alameda County Public Health Department

The Chronicle



Rocky Mountains

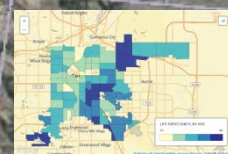
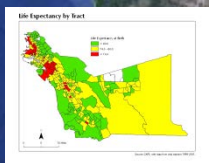


Lake Superior

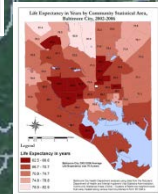
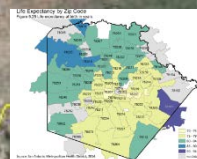
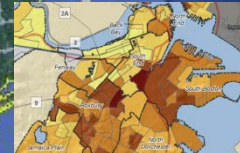
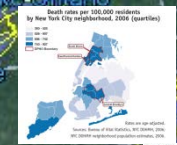
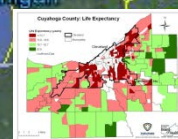
Ottawa

Northumberland Strait

Bay of Fundy



United States



Gulf of California

US Dept of State Geographer

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Imagery Date: 12/13/2015 36°25'07.84" N 95°11'55.15" W elev. 820 ft eye alt 2840.16



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LIFE EXPECTANCY

ZIP CODE
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73

81



10

TOP
COMMENTS

TRENDING

Top Ten Healthcare Quotes For 2013

**Dan Munro**

CONTRIBUTOR

I write about the intersection of healthcare innovation and policy. [FULL BIO](#)

Opinions expressed by Forbes Contributors are their own.

FOLLOW

20+13

YEAR IN REVIEW

This list is by no means comprehensive – it's simply a list of ten quotes I heard (or saw) throughout the year that made me grab a keyboard.

The 11th quote is a straggler that I missed from my list last year ([here](#)), but felt it warranted inclusion this year.

#1 – *“When it comes to health, your zip code matters more than your genetic code.”* **Dr. Tony Iton** – The California Endowment Health Journalism Fellowships 2013 [as tweeted by [@taralohan](#) [here](#) at #cehjf13]

#2 – *“I think the baaest problem with healthcare today is not its cost –*



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About.com > About Health > Medical Supplies > The Owner's Perspective: Challenges and Issues Facing the Medical Stakeholders

14 Provoking Thoughts and Opinions About Health Care by Doctors



By Brian Carmody
Medical Supplies Expert

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what makes sense.”

-- Donald Berwick, MD

12. “When it comes to health, your zip code matters more than your genetic code.”

-- Tony Iton, MD, The California Endowment Health Journalism Fellowships 2013

13. “More than 50 percent (of our MinuteClinic patients) are effectively medically homeless. Patients at MinuteClinic did as well or better than those treated in traditional primary care settings, yet cost was 40 to 80 percent lower than in other settings.”

-- Andrew J. Sussman, MD , President, MinuteClinic and Senior Vice President, CMO, CVS Caremark

14. “We have to be very careful not to blame the patients. A lot of the conversation



By Jonathan
Orthopedic

VIEW MORE IN HEALTH

Advertisement

Keep Your Gold in Your Hands

UP NEXT

25 Entertaining Quotes About Medicine

Stay as healthy as possible while under medica...



DECEMBER 1, 2008

Why Obama
Wants a Team
Of Rivals

Justin Fox
On How to
Save GM

Should You
Buy a
Windmill?

TIME

Ahhh...

Ohhh...

How

Ve?

Annual Checkup

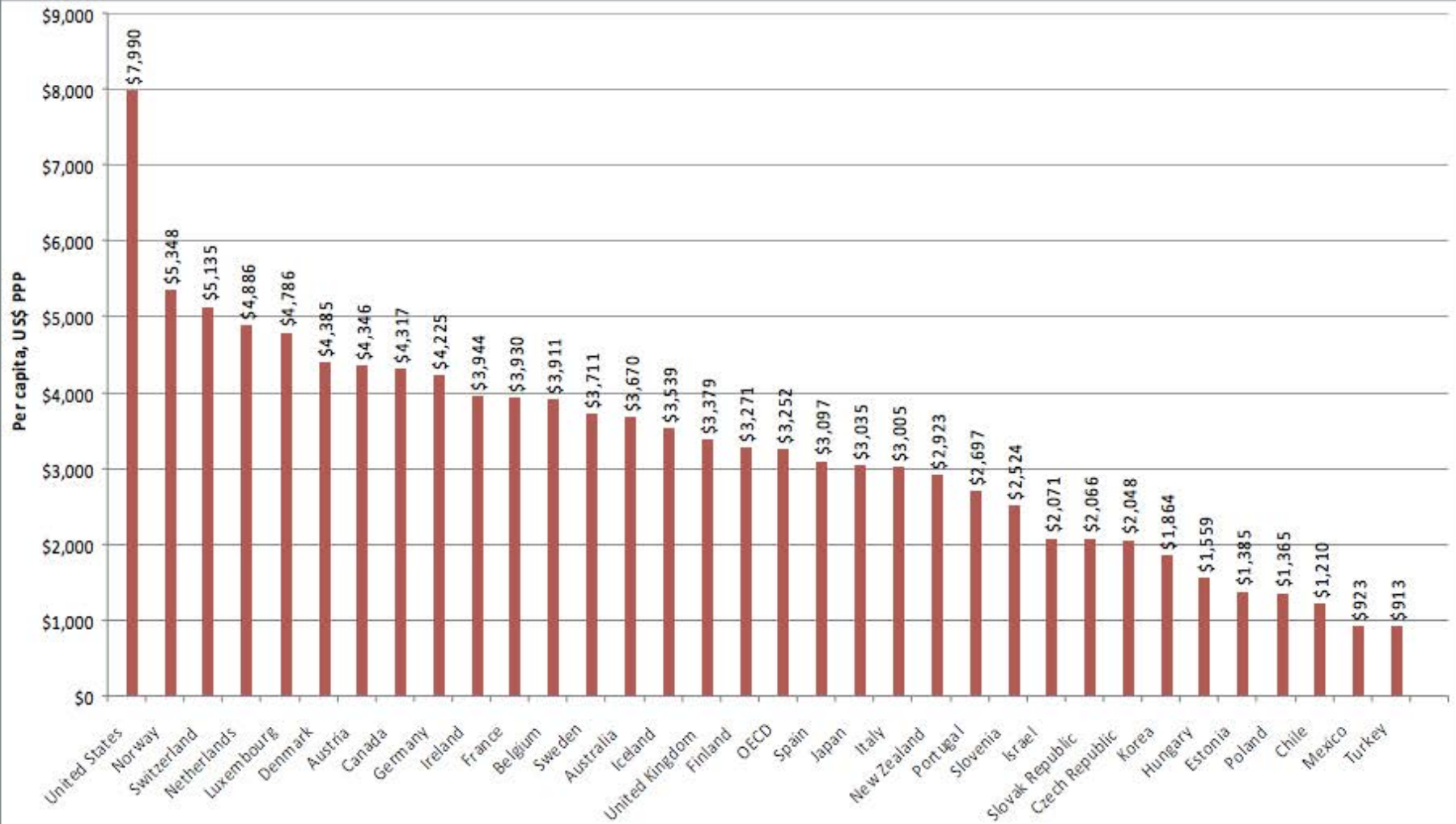
The Sorry State of American Health

Despite advances in medicine, Americans are less healthy than we used to be, and the next generation may be even worse off. How to reverse the trend—before it's too late

PLUS: The Year in Medicine A-Z

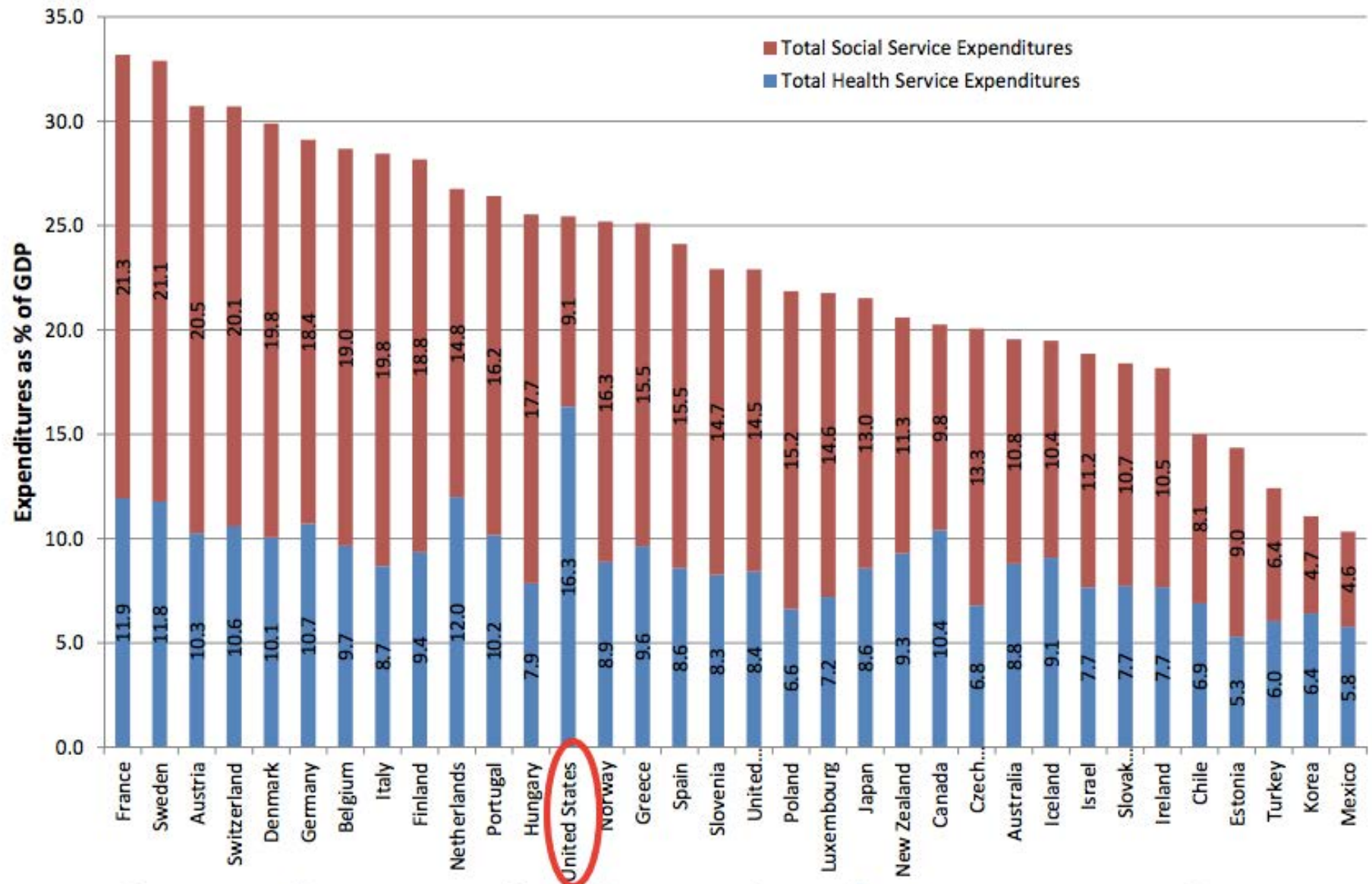
www.time.com

Spending on health care



Data downloaded from OECD.StatExtracts. Available at stats.oecd.org

Total health care investment in US is *less*



In OECD, for every \$1 spent on health care, about \$2 is spent on social services
In the US, for \$1 spent on health care, about 55 cents is spent on social services

Health \neq Health Care



EDxYale



In OECD, for every \$1 dollar spent on health care, **\$2** is spent on **Social Services:**



- Unemployment benefits
- Social assistance
- Housing benefits
- Family benefits
- Lone-parent benefits
- Employment-conditional benefits
- Tax treatment of benefits
- Childcare Policies

In the US, for every \$1 dollar spent on health care, **55 cents** is spent on **Social Services:**



- Prevention
- Pension
- Paid Sick Leave
- Public Education
- Child Care

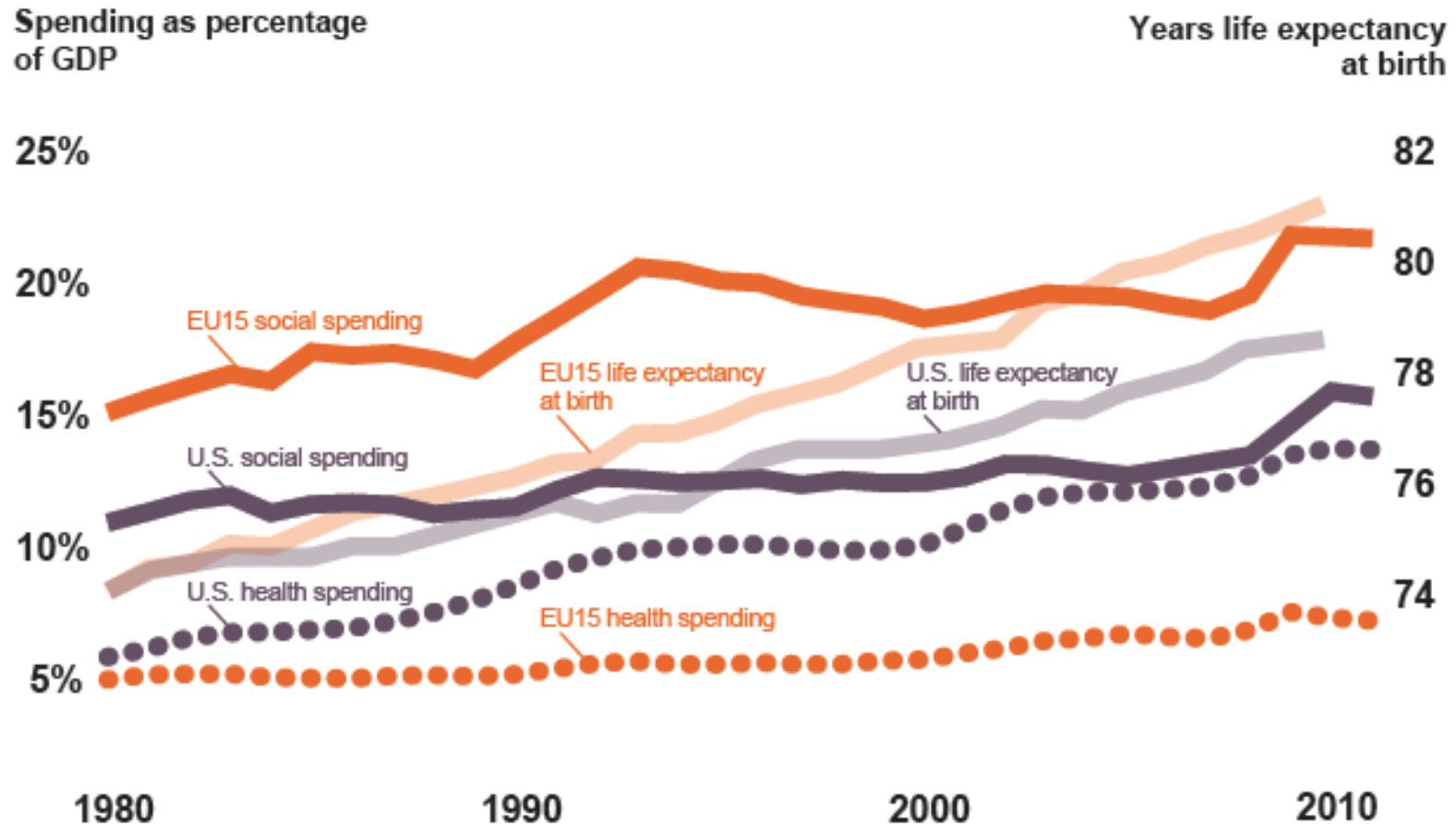
Findings

The ratio of social to health spending was significantly associated with better health outcomes:

- Less infant mortality, low birth weight, premature death; longer life expectancy
- Non-significant for maternal mortality

This remained true even when the US was excluded from the analysis

Different approaches, different results



While health expenditures in the United States have risen significantly more than those in the EU15, life expectancies in these European countries have consistently stayed higher. One difference between the U.S. and the EU15 is found in expenditure on social programmes, with EU15 countries spending significantly more than the United States over the 30 years covered in this study. (EU15 refers to the 15 countries that have been members of the European Union since before its May 2004 enlargement.) NOTE: OECD spending figures include public, mandatory private and voluntary private expenditures. These figures do not include exclusively private spending with no social component. Social spending has been defined as the total of all of these expenditures in all spending categories with the exception of health. Source: OECD SOCX database.

What the data tell us

- ▶ Higher levels of social spending are strongly associated with better health.
- ▶ The association is particularly strong for public, as opposed to private, social spending.
- ▶ Spending on old age programmes demonstrated the strongest association with better health outcomes, including in unexpected areas, such as infant mortality and low birth weight.
- ▶ The association between social spending and better health strengthens over time.
- ▶ Social factors, such as income inequality and social capital (a measure of how much people trust each other in a population), are associated with health outcomes.
- ▶ The association between social spending and health outcomes is strongest where income inequality is greatest. In other words, social protection may be more important for health outcomes in more unequal societies.
- ▶ The associations observed across countries hold across regions of a single country, the United States.

Life Expectancy of White Americans



US Whites

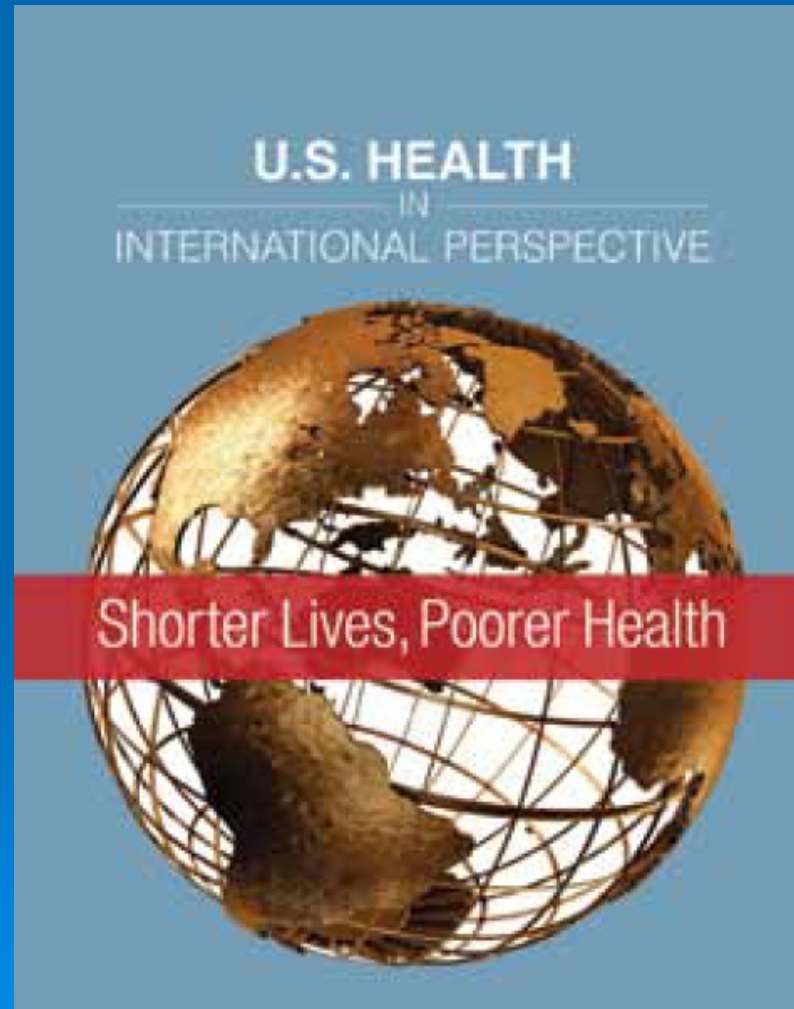
	Life Expectancy
US White	79 years*
Qatar	79 years
Costa Rica	79 years
Nauru	79 years

US Whites Living Shorter Lives Than:

- 80 years: Belgium, Chile, Denmark, Lebanon, Slovenia
- 81 years: Austria, Finland, Germany, Greece, Ireland, Malta, Netherlands, Portugal, UK
- 82 years: Canada, Cyprus, France, Iceland, Israel, S. Korea, Luxembourg, Monaco, New Zealand, Norway, Sweden
- 83 years: Andorra, Australia, Italy, San Marino, Singapore, Spain, Switzerland
- 84 years: Japan
- 33 countries (only 17 in 1990)

“Shorter Lives, Poorer Health”

January 2013 IOM Report on US Health Compared to 17 peer countries



“Shorter Lives, Poorer Health”

January 2013 IOM Report on US Health Compared to 17 peer countries

- ***“ The panel was struck by the gravity of its findings. For many years, Americans have been dying at younger ages than people in almost all other high-income countries. This disadvantage has been getting worse for three decades, especially among women.*”**

“Shorter Lives, Poorer Health”

January 2013 IOM Report on US Health Compared to 17 peer countries

- “The US health disadvantage cannot be fully explained by the health disparities that exist among people who are uninsured or poor, as important as these issues are. Several studies are now suggesting that even advantaged Americans—those who are white, insured, college-educated, or upper income—are in worse health than similar individuals in other countries.”

HEALTH

Death Rates Rising fo

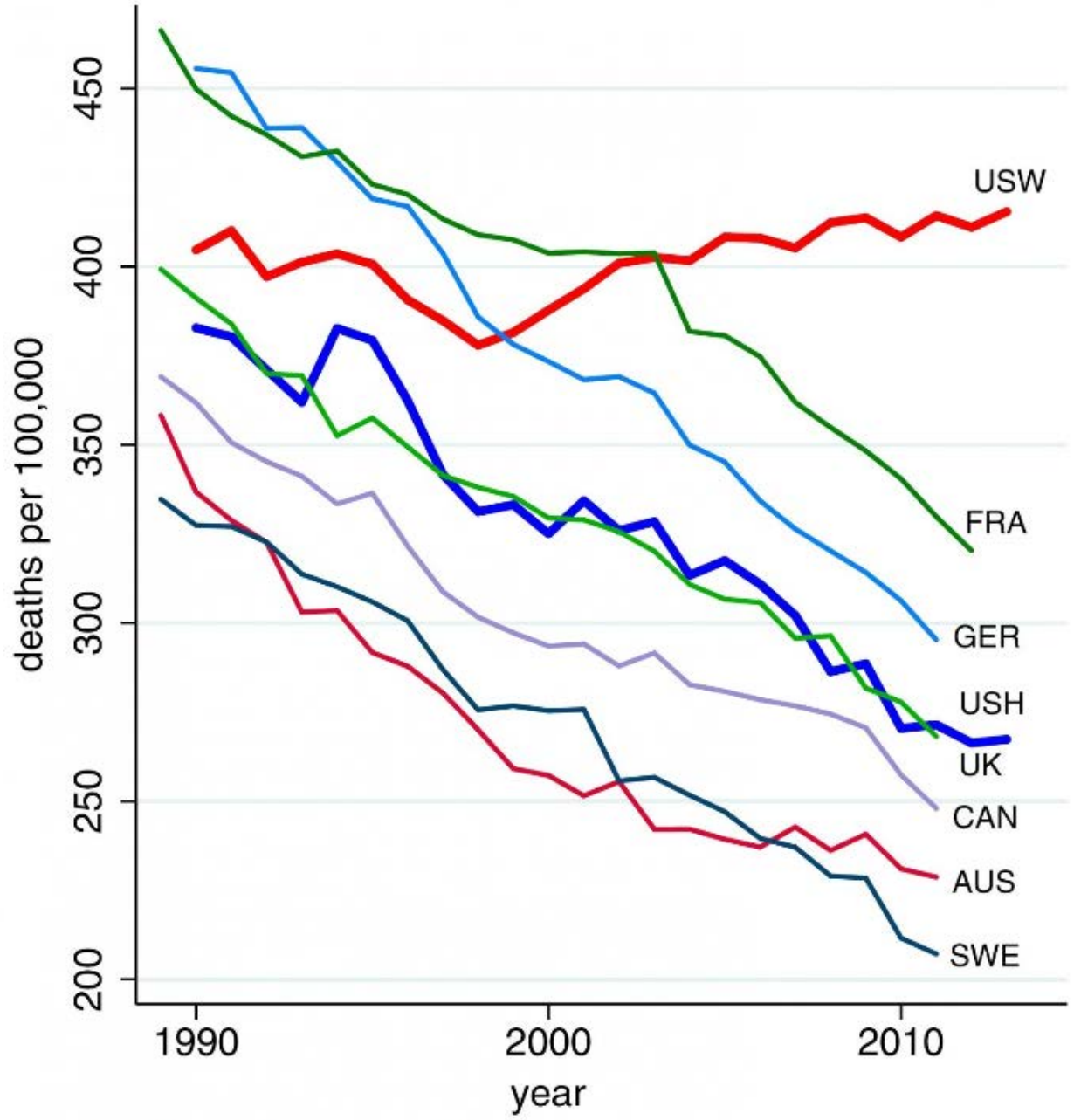
By GINA KOLATA NOV. 2, 2015



2014 and remained Betsy McKay explain Mike Blake/Reuters

A 15-year study and Hispanics

Drug and alc of white Ame gains experie



Death rate for U.S. non-Hispanic whites (USW), U.S. Hispanics and six comparison countries, aged 45-54. (Source: Proceedings of the National Academy of Sciences.)

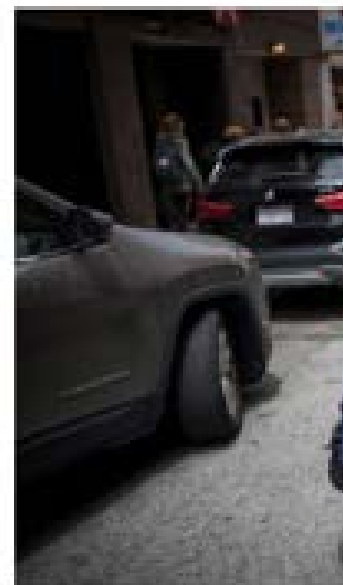
Economics

American Life Expectancy Falls Again as Opioid Deaths, Disease Rise

By [Alexandre Tanzi](#)

November 28, 2018 9:01 PM

- ▶ Deaths from drug overdoses top
- ▶ The 10 leading causes of death r



U.S. life expectancy and drug overdoses

The average American life expectancy in 2016, according to the CDC, was 78.4 years. It marks the third

TIME

U.S. Life Expectancy Dropped for the Third Year in a Row. Drugs and Suicide Are Partly to Blame

Janine Ducharme | 11/29/2018

HEALTH 11/29/2018 06:42 am ET | Updated 3 hours ago

U.S. Life Expectancy Continues To Fall As Overdose And Suicide Rates Soar

It's the longest-running decline in U.S. history since World War I, when a flu pandemic killed almost 700,000 people nationwide.

By [Willa Frej](#)



Which of the following for combining your auto and life insurance?

- Progressive
- Liberty Mutual
- Allstate
- Geico
- State Farm
- None of the Above

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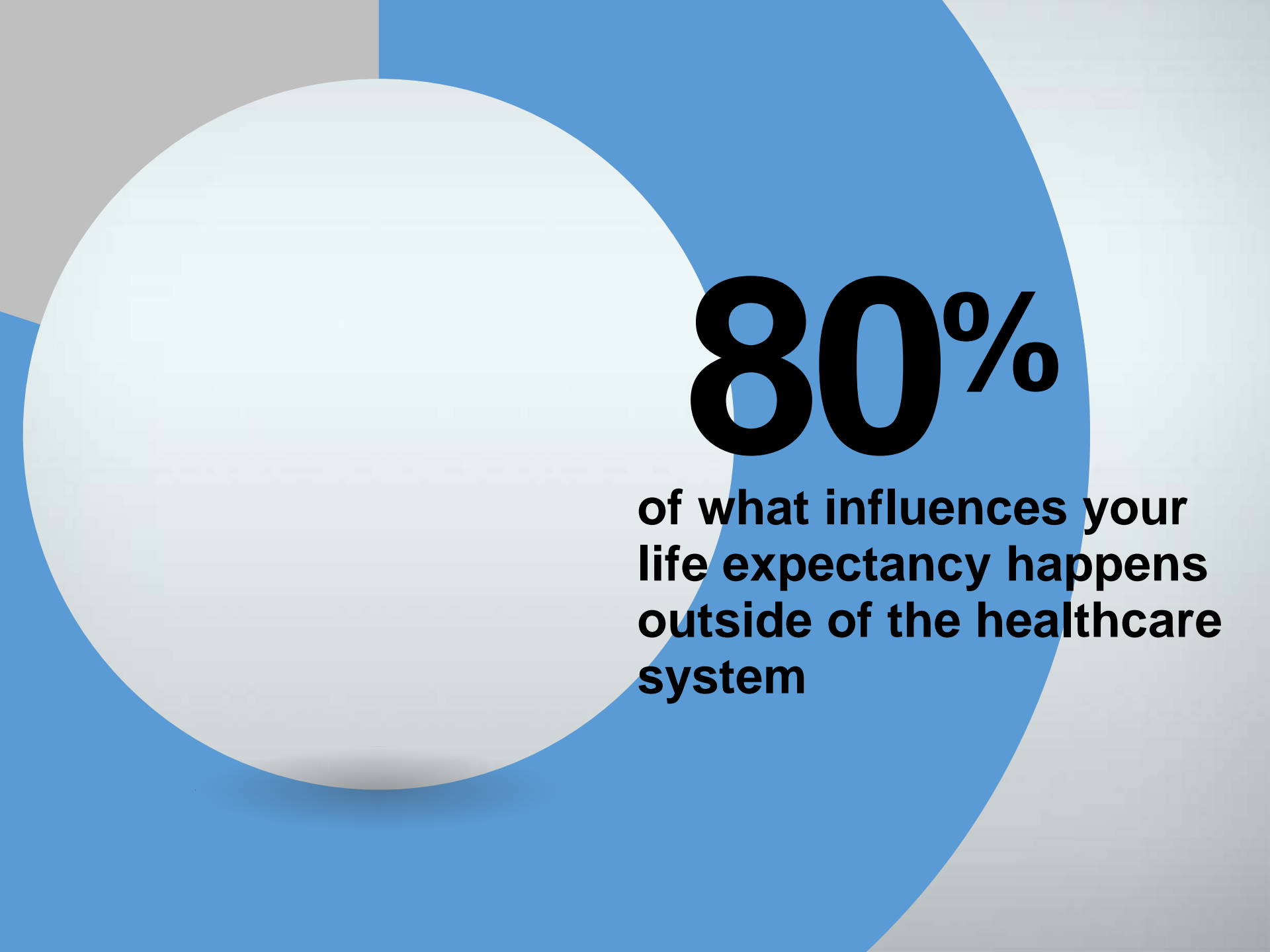
[Nicole Laughlin](#)

HBO to explore declining life expectancy in Marc Levin's "One Nation Under Stress"

By Daniele Alcinii March 19, 2019



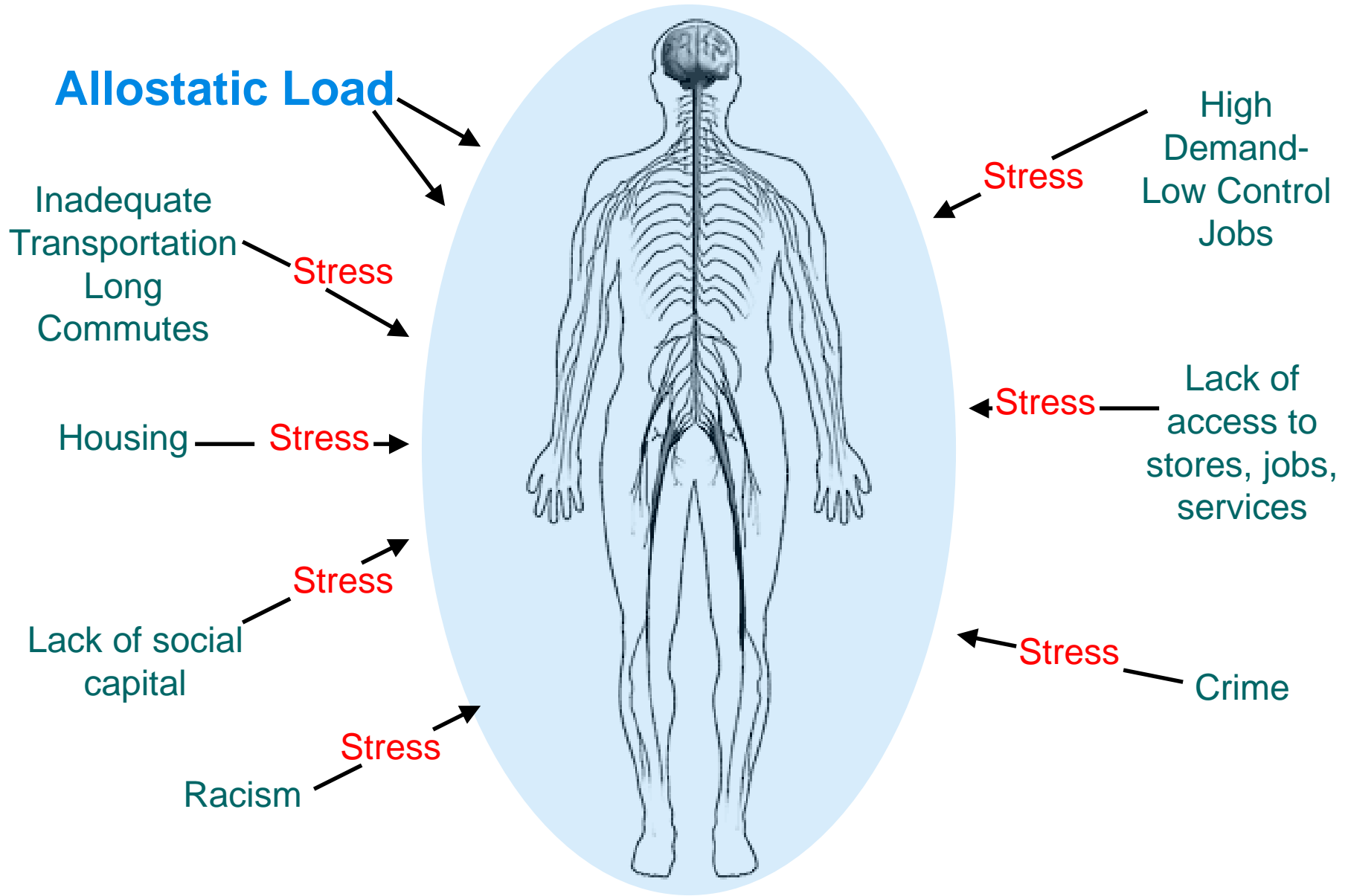




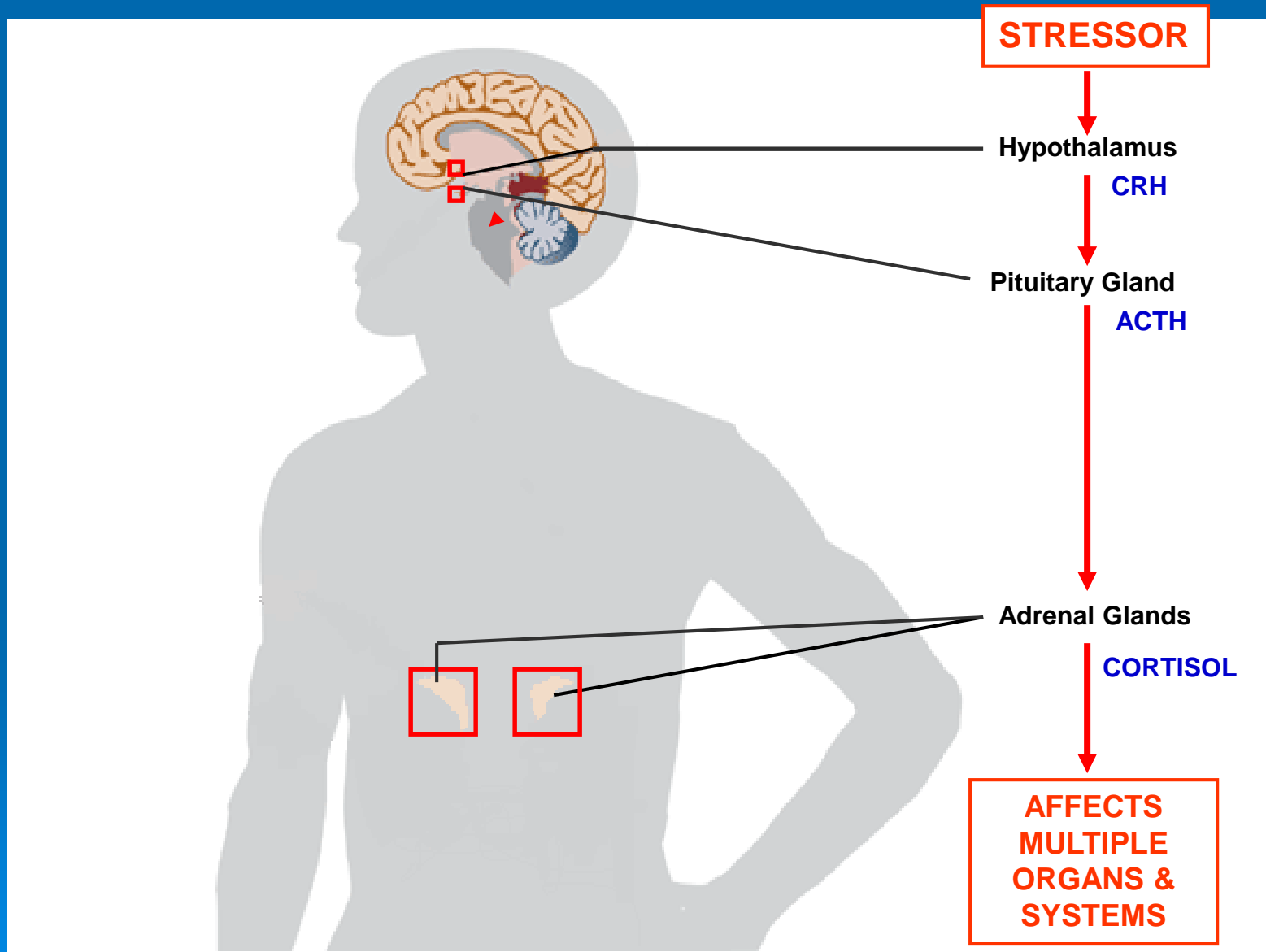
80%

**of what influences your
life expectancy happens
outside of the healthcare
system**

When the External Becomes Internal: How we internalize our environment



Stress pathway from Brain to Body



Stressed vs. Stressed Out

➤ Stressed

- Increased cardiac output
- Increased available glucose
- Enhanced immune functions
- Growth of neurons in hippocampus & prefrontal cortex

➤ Stressed Out

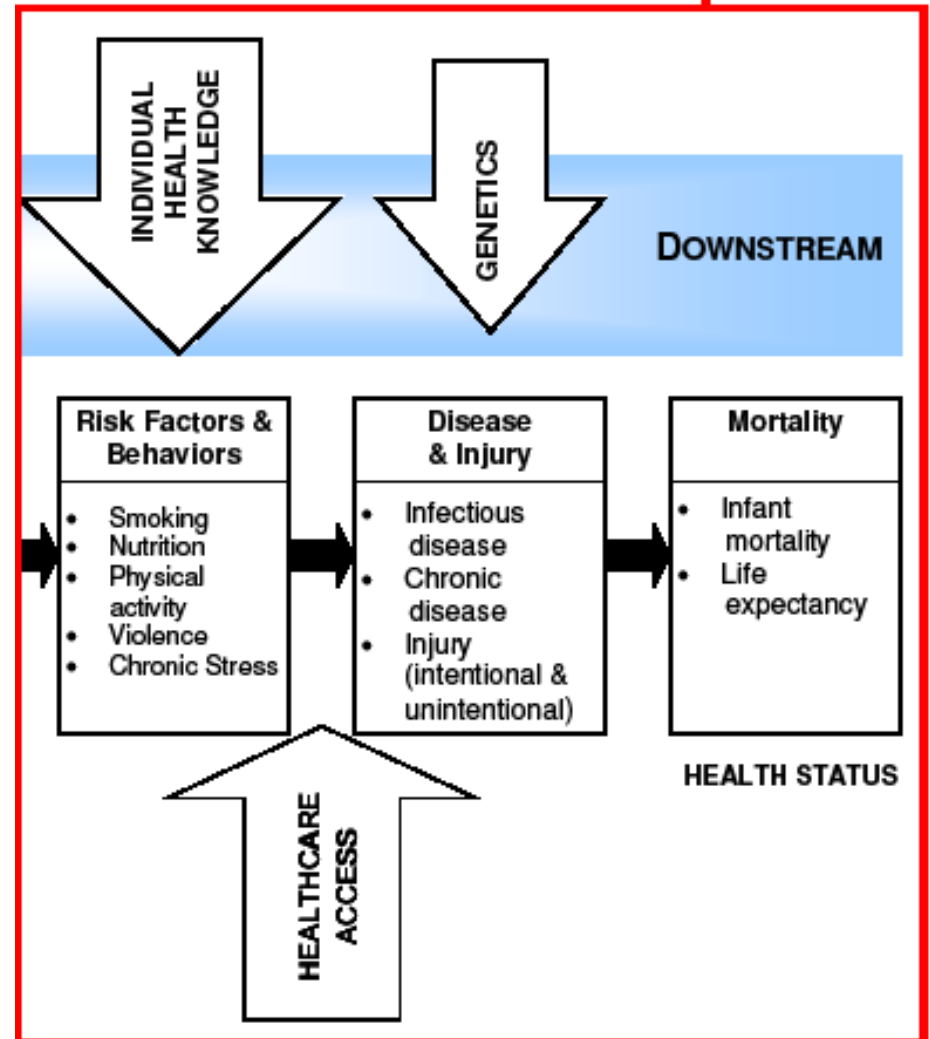
- Hypertension & cardiovascular diseases
- Glucose intolerance & insulin resistance
- Infection & inflammation
- Atrophy & death of neurons in hippocampus & prefrontal cortex

A Practitioner's Framework



A Framework for Health Equity

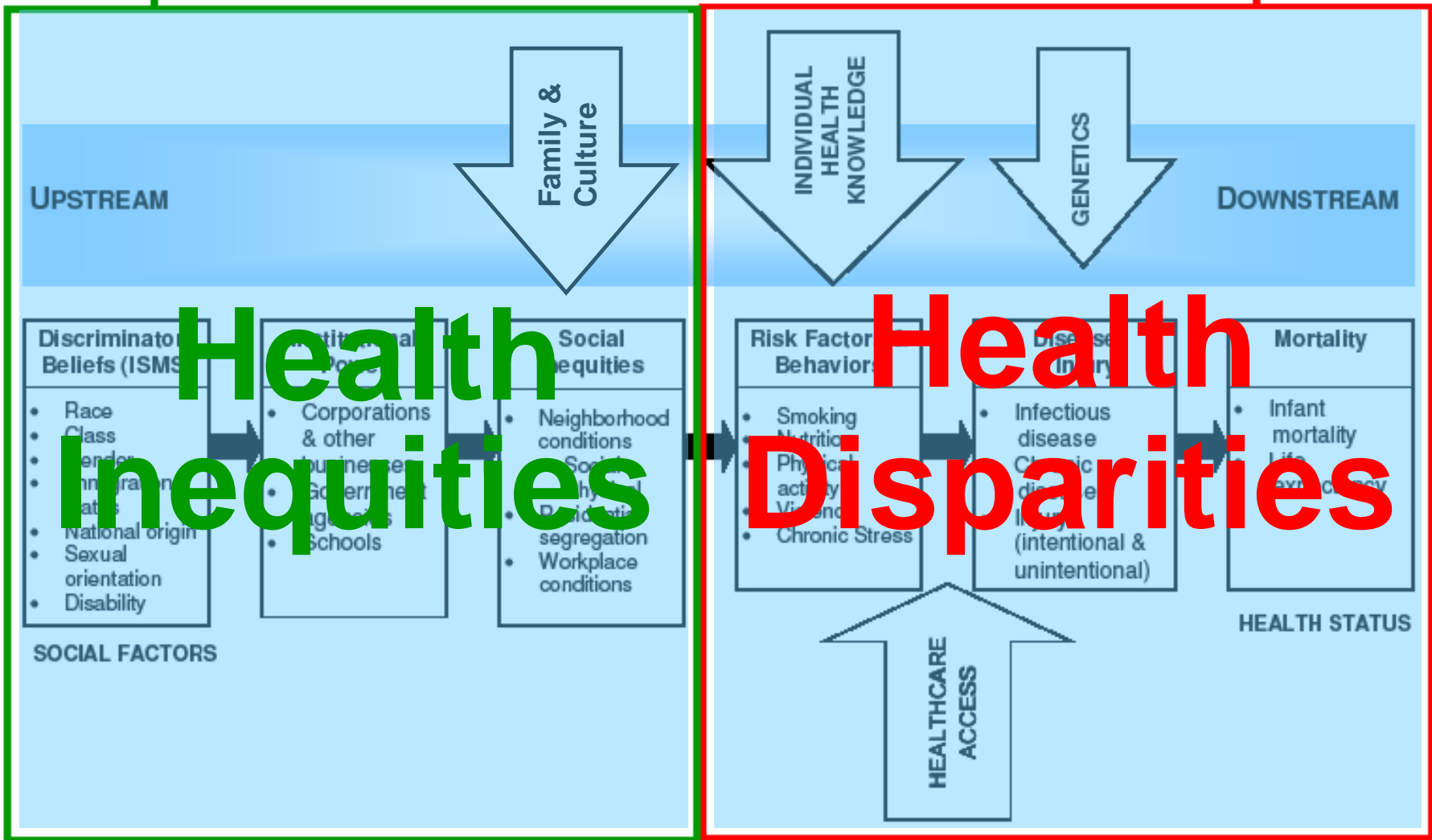
Medical Model



A Framework for Health Equity

Socio-Ecological

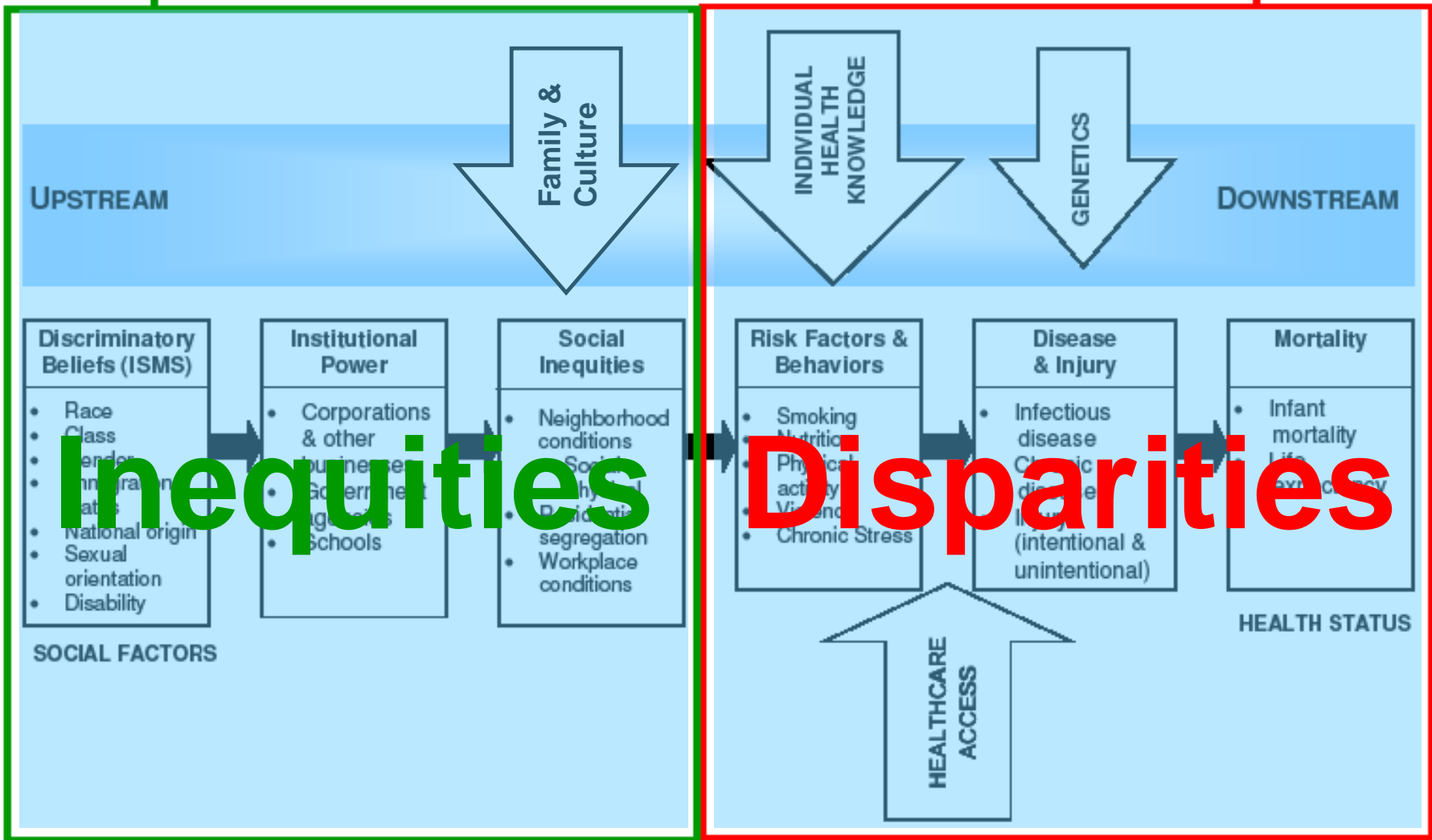
Medical Model



A Framework for Health Equity

Socio-Ecological

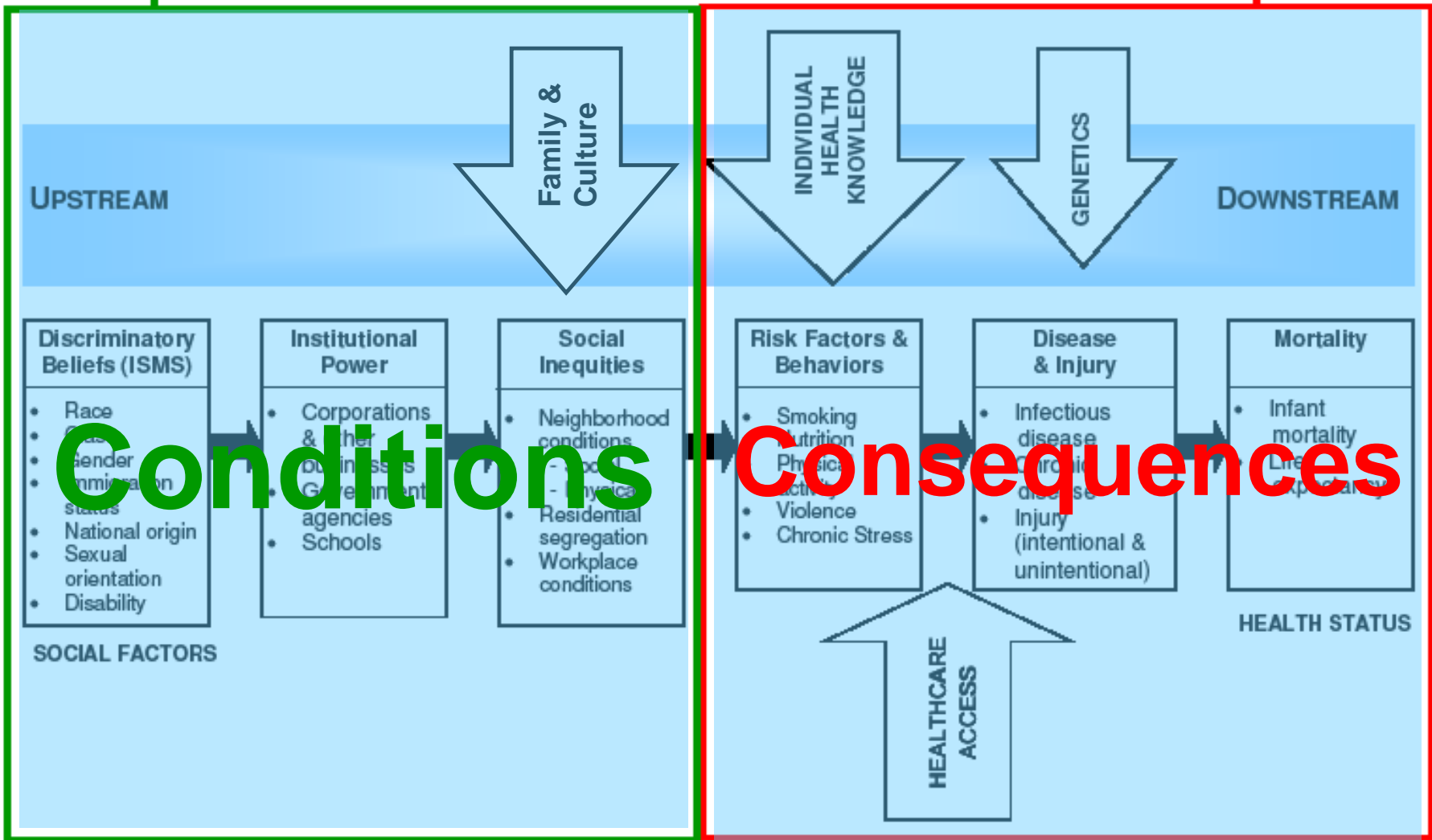
Medical Model



A Framework for Health Equity

Socio-Ecological

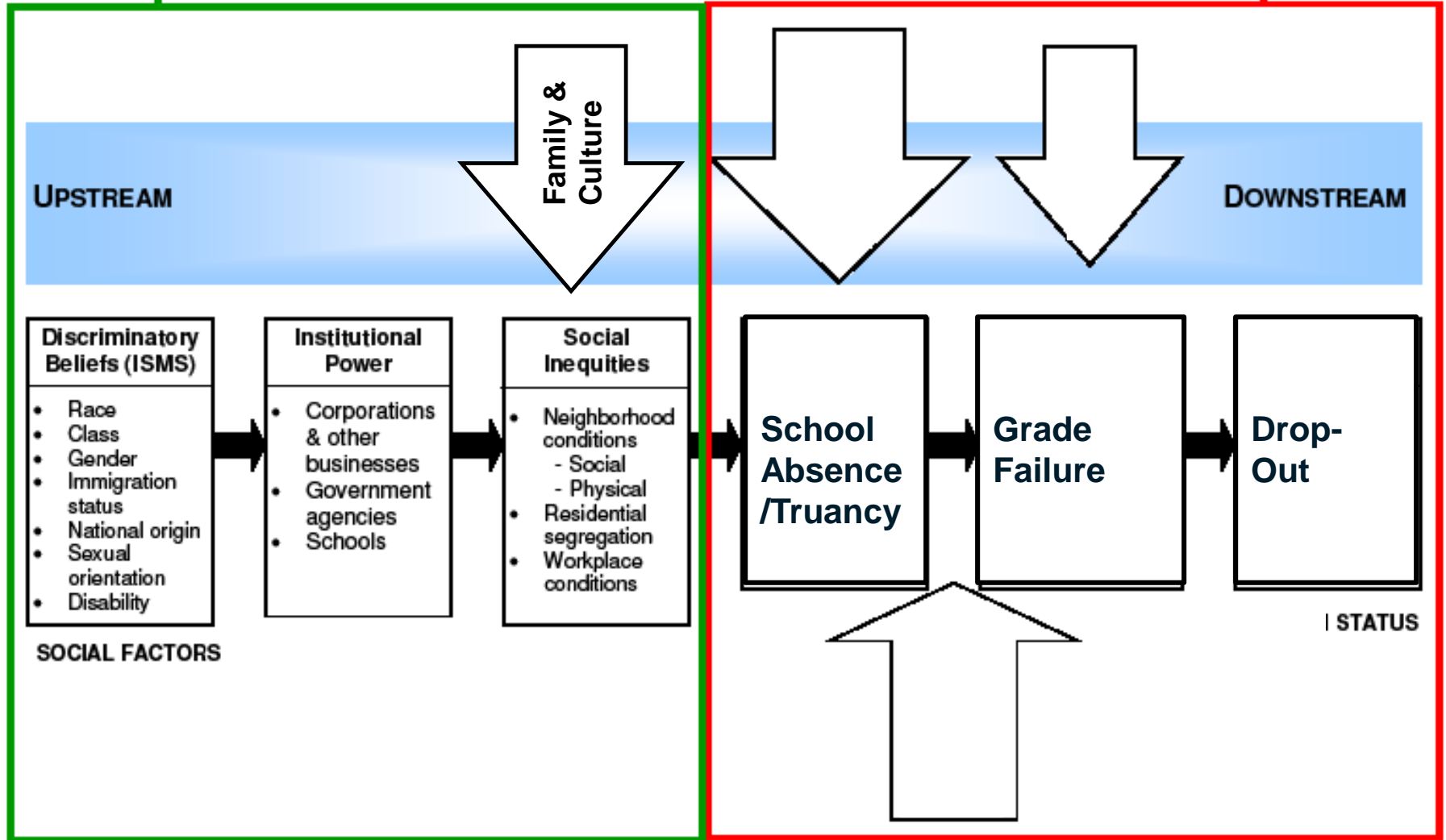
Medical Model



A Framework for Health Equity

Socio-Ecological

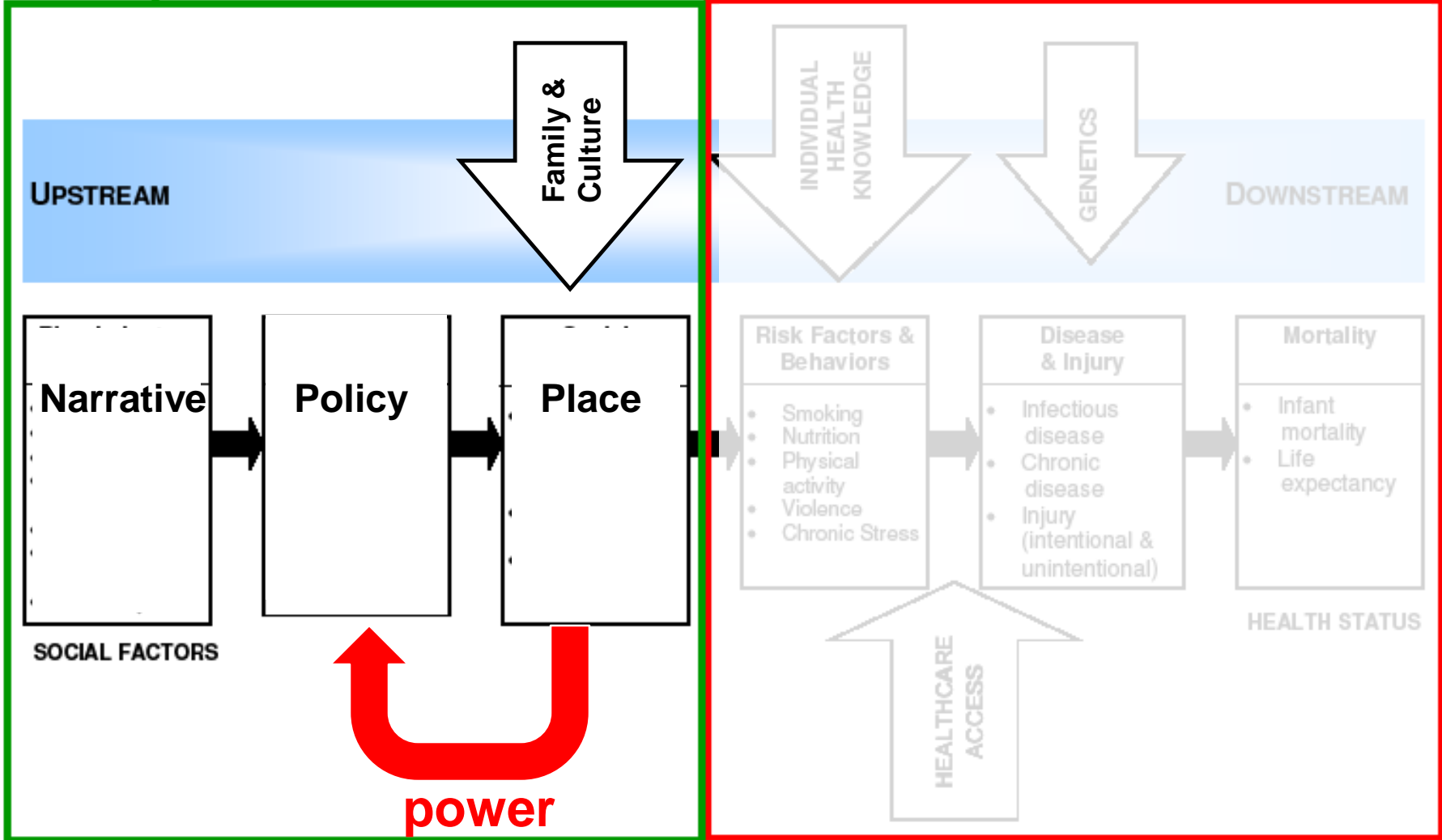
Medical Model



A Framework for Health Equity

Socio-Ecological

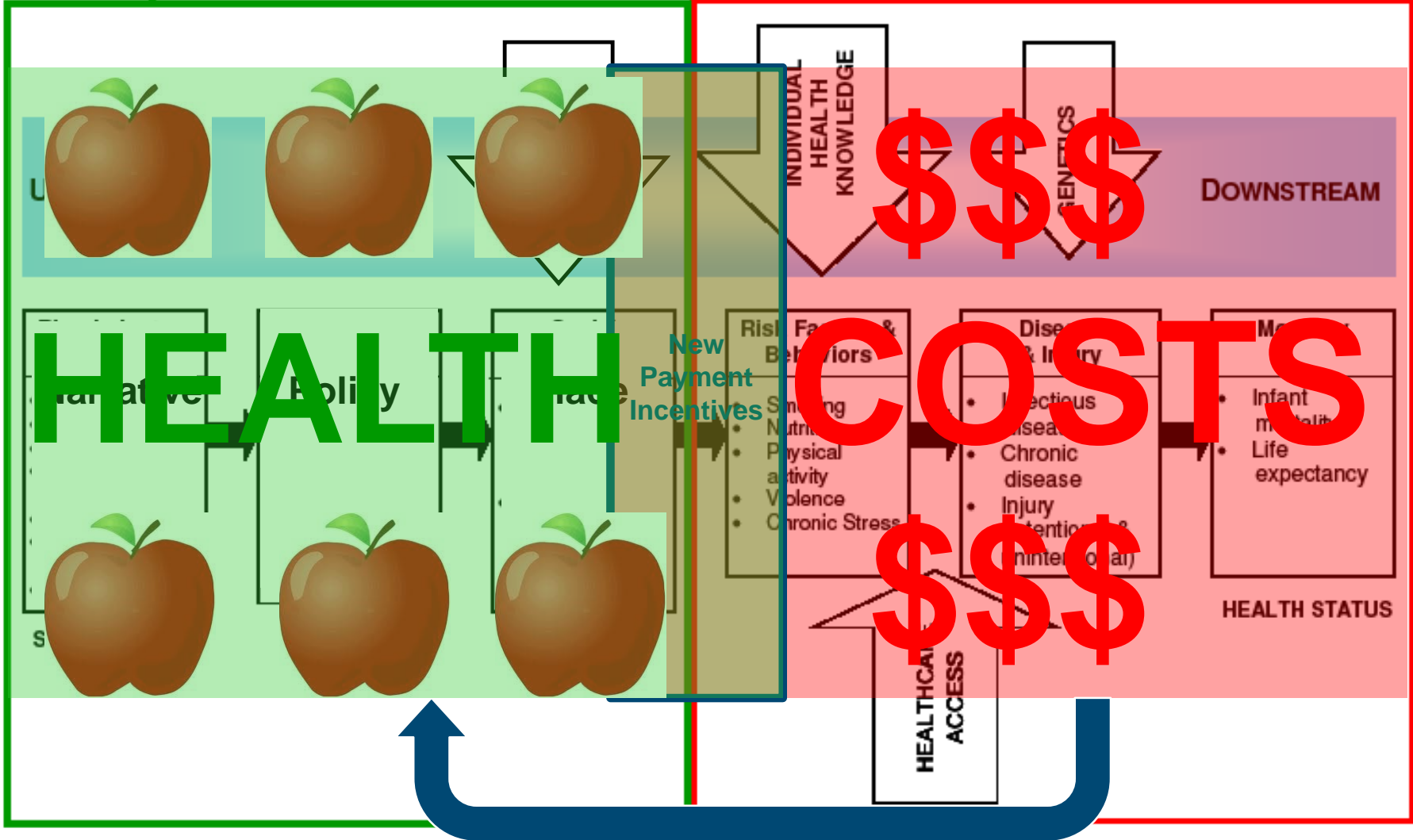
Medical Model



A Framework for Health Equity

Socio-Ecological

Medical Model



- Adapted by ACPHD from the Bay Area Regional Health Inequities Initiative, Summer 2008

The Poor People's Campaign Calls Out 'Policy Violence'

The campaign wants to advance a new understanding of poverty as a traumatic experience inflicted by policy-makers.



'Policy violence' against people of color increases COVID-19's deadly toll

BY ANTHONY ITON *SPECIAL TO THE SACRAMENTO BEE*

APRIL 15, 2020 06:00 AM, UPDATED 3 HOURS 2 MINUTES AGO

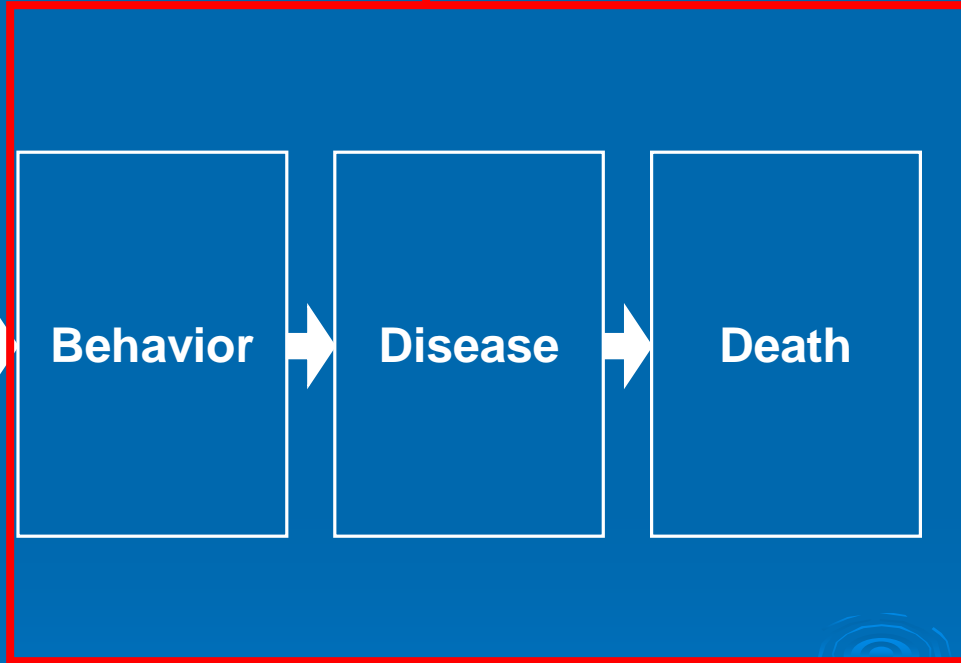
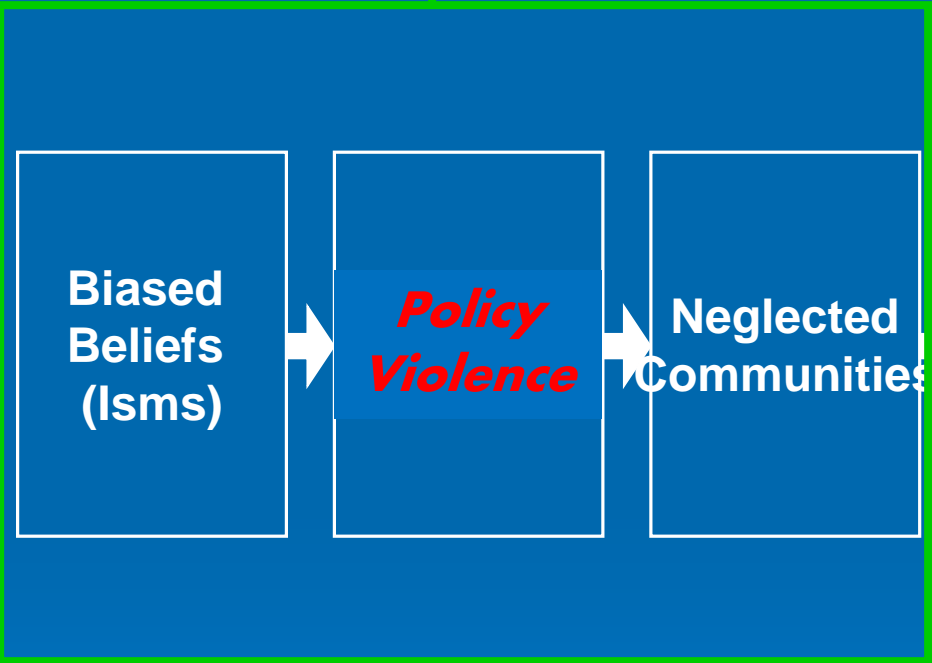


“The most difficult social problem in the matter of Negro health is the peculiar attitude of the nation toward the well-being of the race. There have been few other cases in the history of civilized peoples where human suffering has been viewed with such peculiar indifference.”

W.E.B. DuBois, *The Philadelphia Negro*, 1899

Socio-Ecological (society)

Medical Model (individuals)

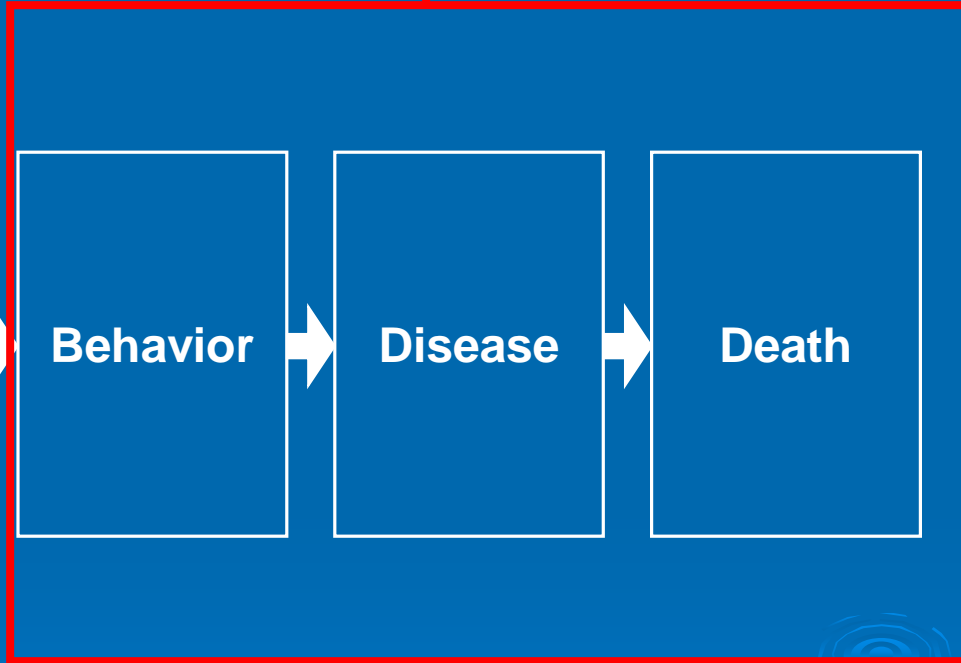
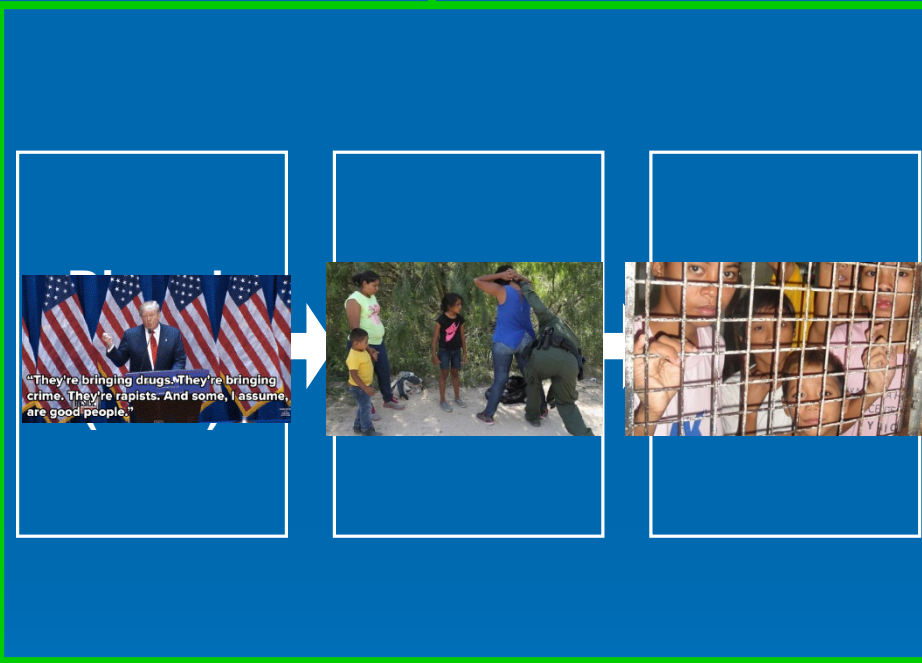


Health Equity



Socio-Ecological (society)

Medical Model (individuals)



Health Equity



health happens **here**



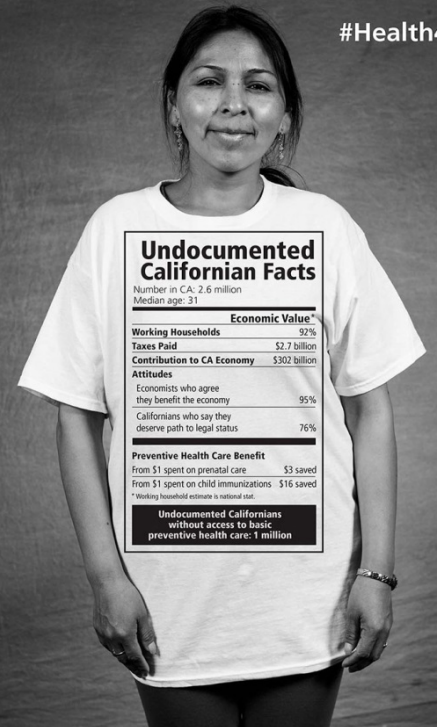
“The experience of poverty in and of itself is a violent, traumatic experience, and it’s inflicted by policy-makers and our own society.” Dr. Mariana Chilton, Children’s HealthWatch Philadelphia



Formerly Incarcerated Undocumented Boys and Men of Color



#Health4All



Undocumented Californian Facts	
Number in CA: 2.6 million	
Median age: 31	
Economic Value*	
Working Households	92%
Taxes Paid	\$2.7 billion
Contribution to CA Economy	\$302 billion
Attitudes	
Economists who agree they benefit the economy	95%
Californians who say they deserve path to legal status	76%
Preventive Health Care Benefit	
From \$1 spent on prenatal care	\$3 saved
From \$1 spent on child immunizations	\$16 saved
<small>* Working household estimate is national stat.</small>	
Undocumented Californians without access to basic preventive health care: 1 million	

- Agency
- Belonging
- Changing the Odds



ABC

➤ **A = AGENCY ~ Power.**

The ability to exert voice and power in community leaders.

If equity is the goal, we have to address power differentials. Build social, political and economic power in a critical mass of residents. (Critical mass ~1%).

ABC

➤ B = BELONGING.

The dominant narrative is one of exclusion. We have to create, with community partners, a strong narrative of inclusion. Address trauma and create space for healing.

The spirit of inclusion provides for a shared sense of purpose in community.

ABC

- **C=Change the Conditions. Change the Odds.** Opportunity structures are critical particularly schools and criminal justice system in the lives of young people of color.
- Health inequities are structurally and systematically manufactured by the conditions that families and communities struggle against.

COMMUNITY. POWER. JUSTICE.



BHC: The HOW

Building Healthy Communities | Theory of Change

Health Status Change



Building Healthy Communities

Drivers of Change

People
Power

Youth
Leadership,
Development
and Organizing

Enhanced
Collaboration
& Policy
Innovation

Leveraging
Partnerships
& Resources

Changing
the
Narrative

POWER

POLICY

NARRATIVE

COMMUNITY. POWER. JUSTICE.



BHC: The WHAT

PREVENTION

SCHOOLS



NEIGHBORHOODS





"Transformative Twelve" Policy Domains



Healthy People 2020 Social Determinants of Health Framework

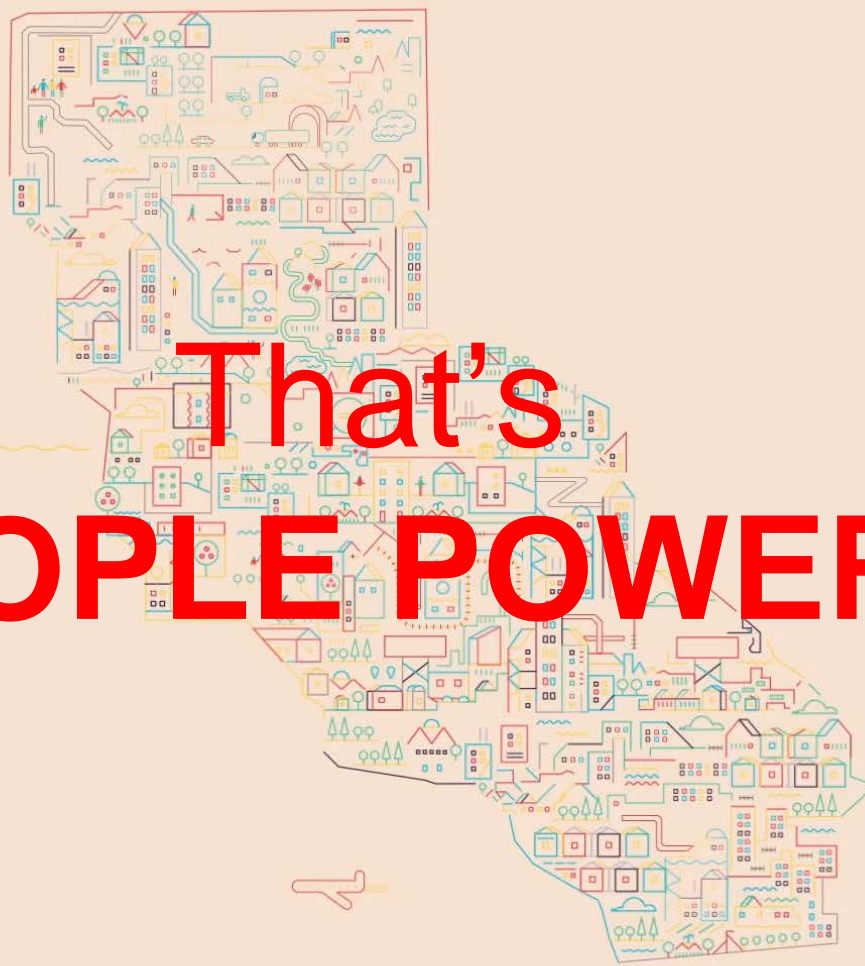


health
happens
here



Results





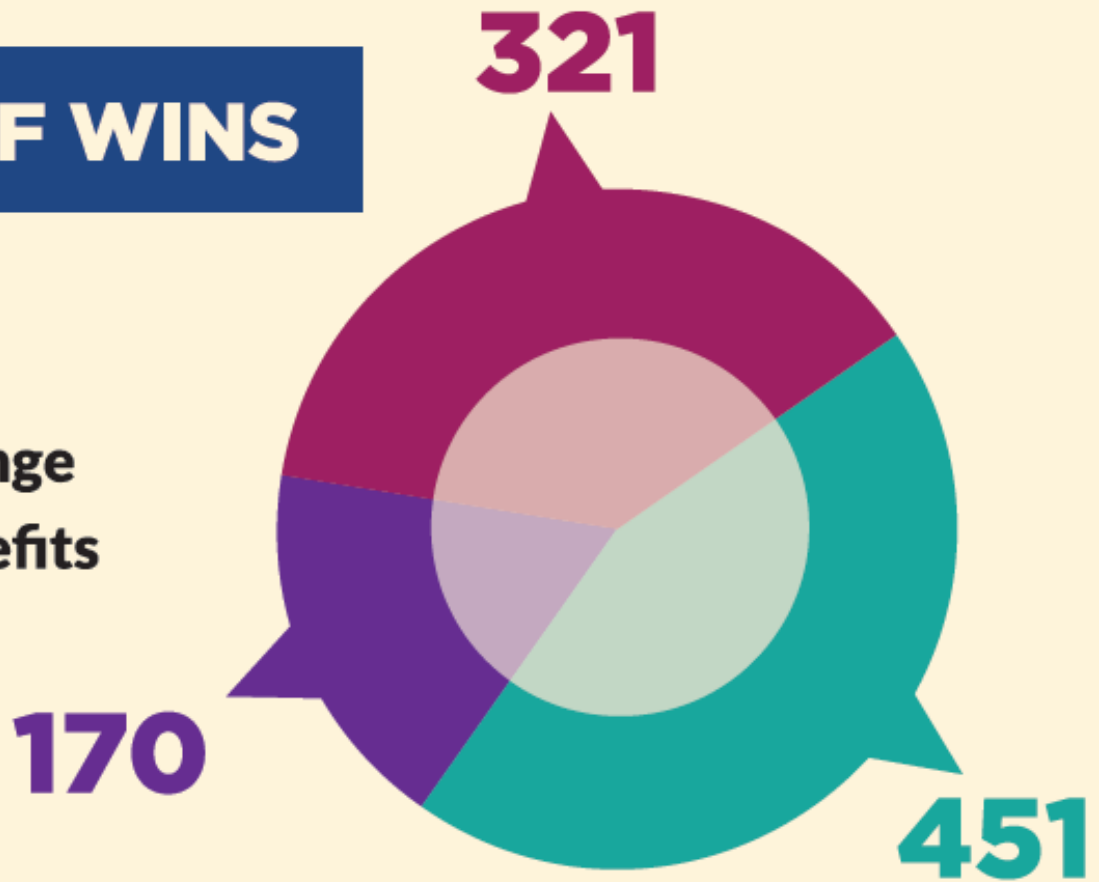
That's
PEOPLE POWER!



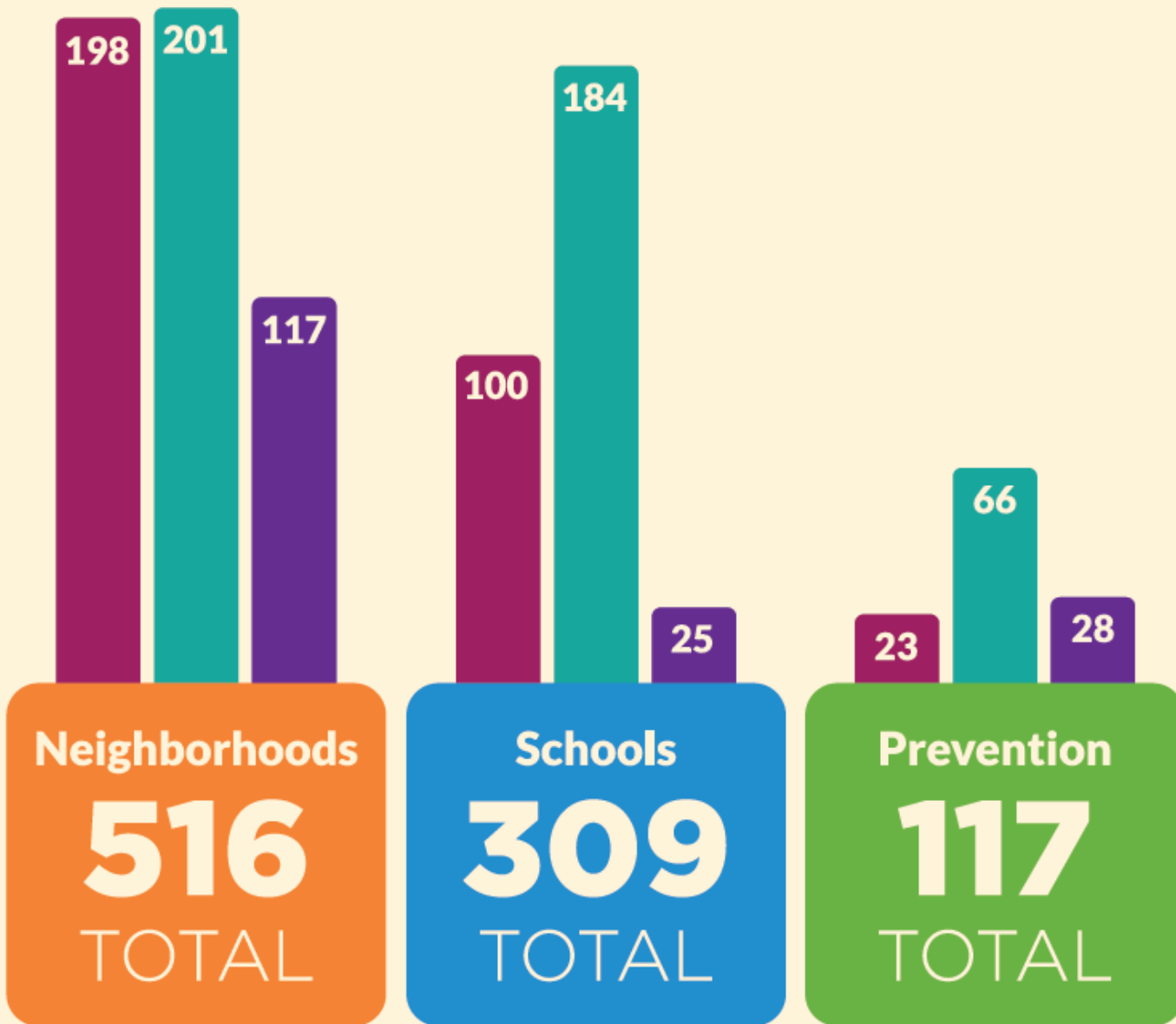
942 TOTAL WINS

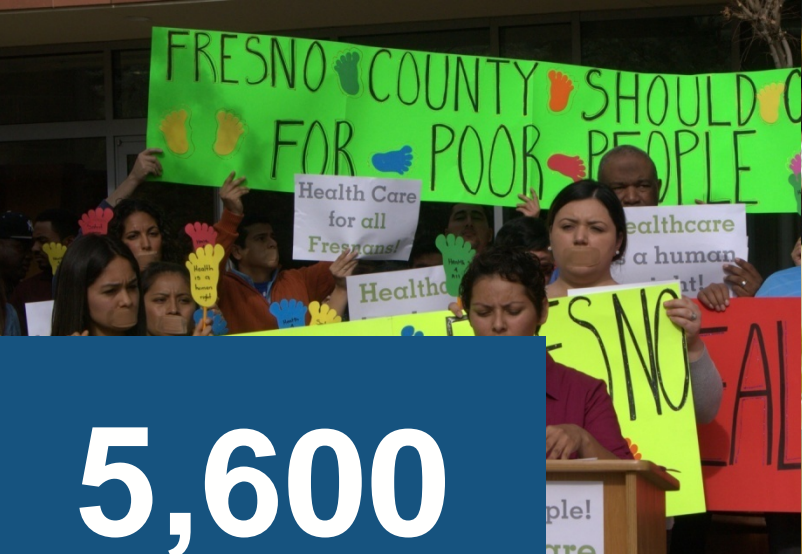
NUMBER OF WINS

- Policy**
- Systems Change**
- Tangible Benefits**



CAMPAIGN WINS BY 3 CAMPAIGNS





5,600



#Health4All



5,000

FRESNO

HEALTH4ALL



NEED HEALTH INSURANCE

Health4All



8,000



LONG BEACH

ENVIRONMENTAL JUSTICE

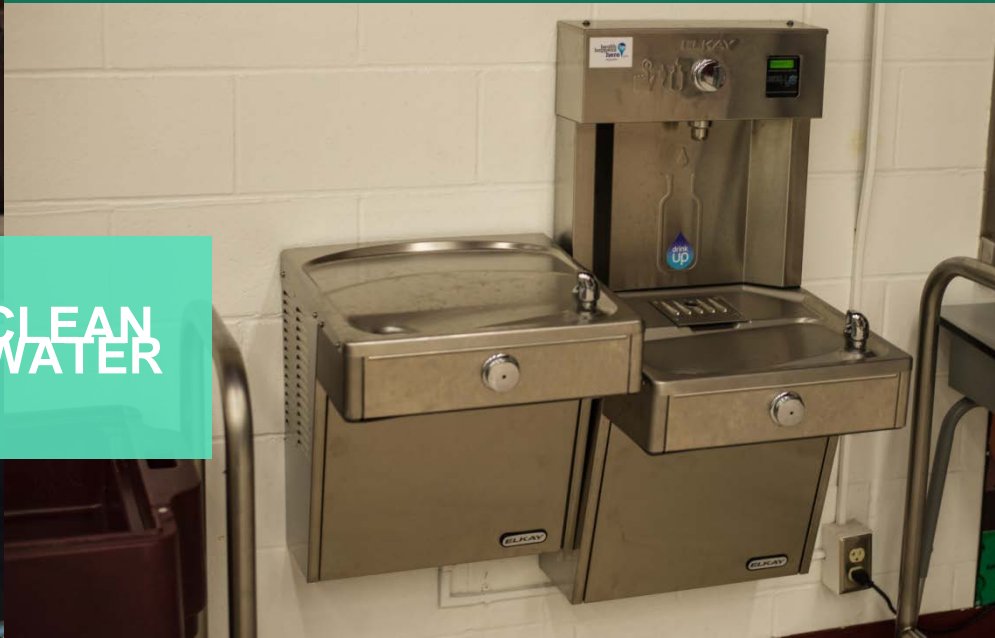


150,000



COACHELLA

CLEAN
WATER





CITY HEIGHTS HALAL SCHOOL LUNCH



RICHMOND CRIME



Get Loud.



This is Our Moment.



Final Thoughts

- **Redefine Health**
- **Foster a Culture of Inclusion**
- **Strengthen Our Social Compact**

Questions



Contact Information

Tony Iton, MD, JD, MPH

Senior Vice President
The California Endowment

Learn more at www.buildinghealthycommunities.org #ChangeTheOdds



Twitter:

https://twitter.com/dr_tonyiton
[@dr_tonyiton](https://twitter.com/dr_tonyiton)



Facebook:

<https://www.facebook.com/drtonyiton/>
[@drtonyiton](https://www.facebook.com/drtonyiton/)

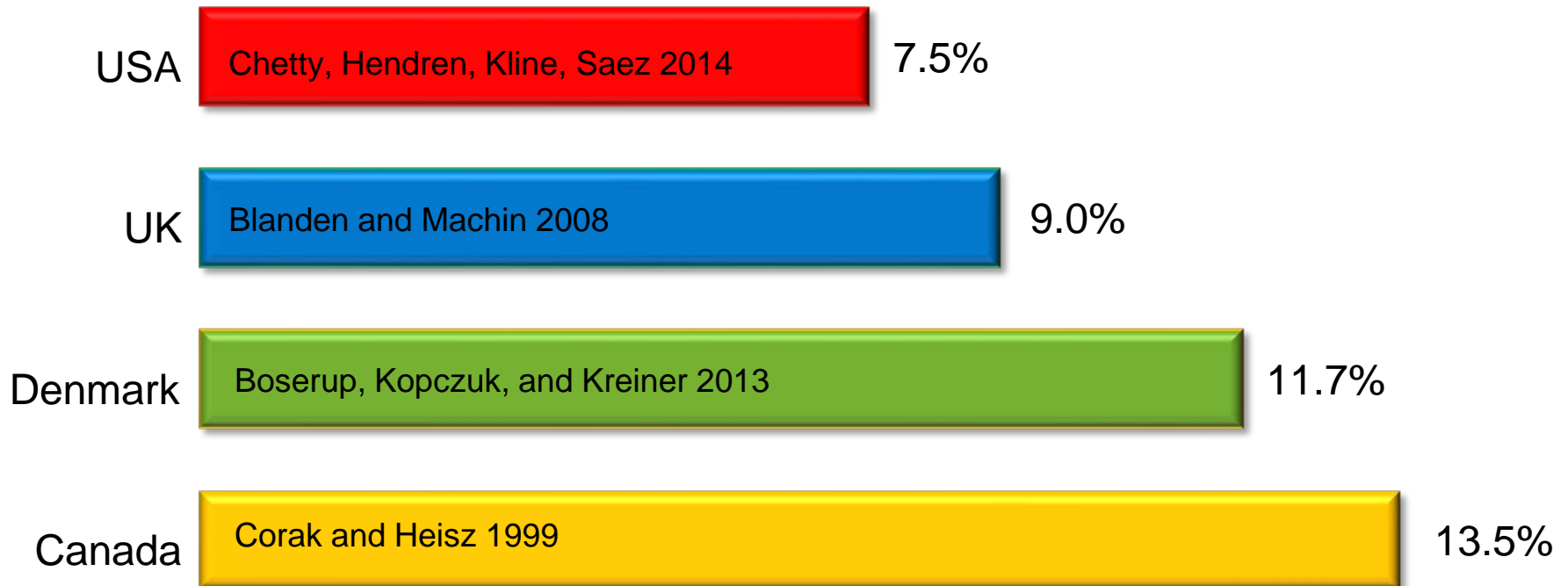


LinkedIn:

<https://www.linkedin.com/in/drtonyiton>

The American Dream?

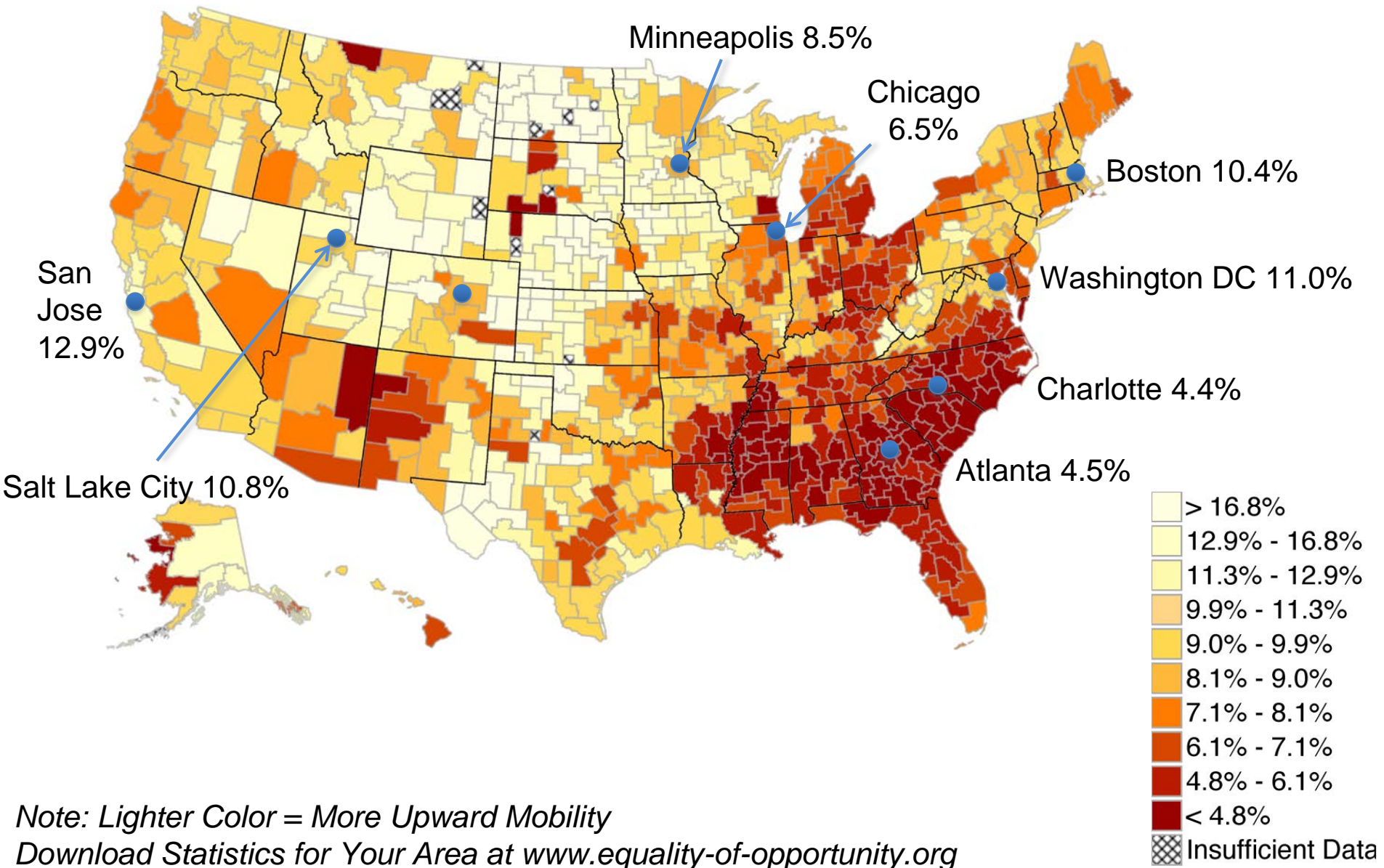
- Odds that a child born to parents in the bottom fifth of the income distribution reaches the top fifth:



→ Chances of achieving the “American Dream” are almost two times higher in Canada than in the U.S.

The Geography of Upward Mobility in the United States

Chances of Reaching the Top Fifth Starting from the Bottom Fifth by Metro Area



The Geography of Upward Mobility in the Bay Area

Chances of Reaching the Top Fifth Starting from the Bottom Fifth by County

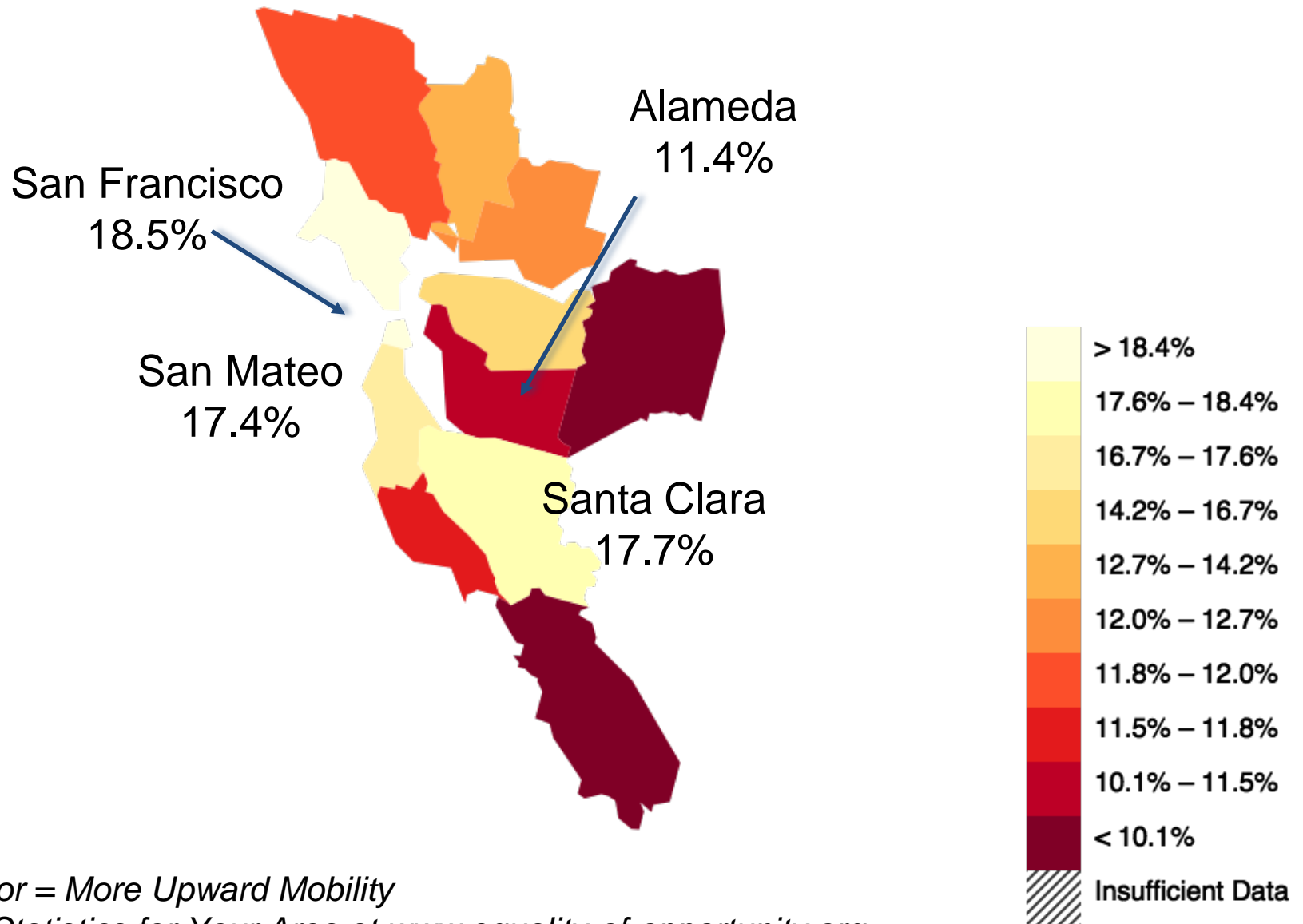
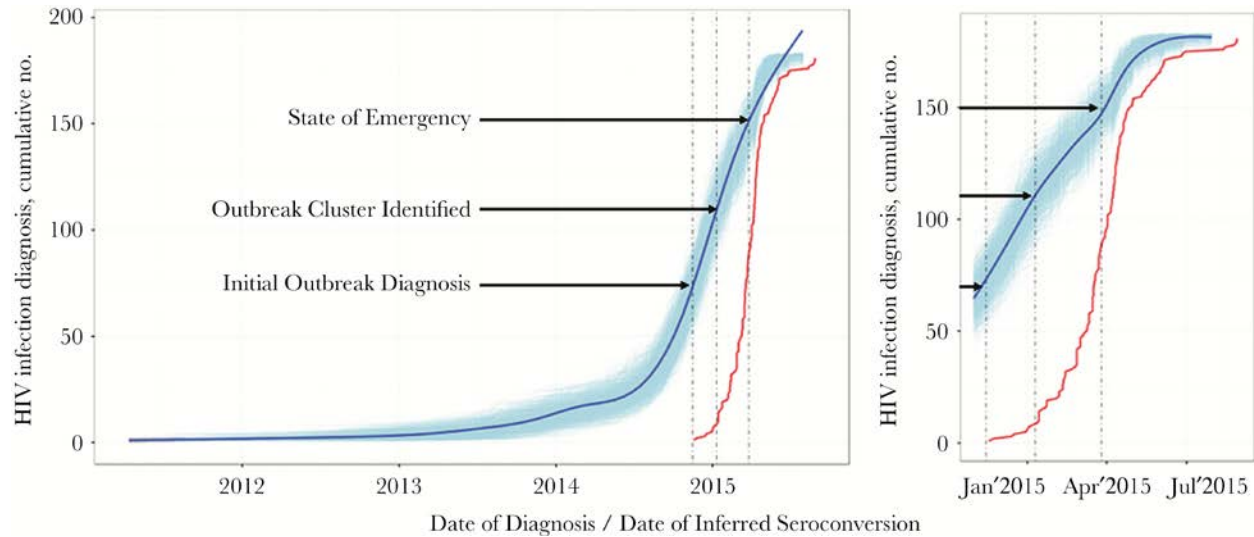


Figure 6. Cumulative human immunodeficiency virus (HIV) diagnoses (red) and simulated incidence (light blue), by date. ...





BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 24

Air District Print and Online Annual Report

**Board of Directors Special Meeting
June 3, 2020**

**Tina Landis
Communications Office**

Coming Together in Print



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

2019 Annual Report

COMING TOGETHER

Board of Directors Special Meeting
June 3, 2020

BUILDING PARTNERSHIPS FOR CHANGE

WE ARE WORKING TOGETHER TO ENSURE THAT EVERYONE BENEFITS FROM OUR AIR QUALITY EFFORTS.

As part of statewide efforts to implement Assembly Bill 680, the Air District's Community Health Protection Program partnered with the California Air Resources Board, local health districts, community groups, community members, environmental organizations, and local businesses and other stakeholders to address harmful air pollutants. The highly impacted areas of Elgin and San Pablo and West Oakland were selected by CAHPP as priority communities.

RICHMOND COMMUNITY SUMMIT

Community members from the Richmond area came together in partnership with the Air District to develop a Community Air Plan during the Richmond Community Summit, which will be held in July 2020. The Summit will focus on air quality issues that are most important to the community and will focus on air quality issues that are most important to the community. The Summit will focus on air quality issues that are most important to the community.

WEST OAKLAND COMMUNITY ACTION PLAN

The Air District and the West Oakland Environmental Action Fund are working together to develop a Community Air Plan for West Oakland. The plan will focus on air quality issues that are most important to the community.

Coming Together theme represents work in communities most impacted by air pollution.

STRENGTHENING COMMUNITY PROTECTIONS

The Air District is working to strengthen community protections by providing technical assistance to local health districts and community groups. This assistance includes help with air quality monitoring, data analysis, and public outreach.

WILDFIRE AIR QUALITY RESPONSE PROGRAM

As part of the Wildfire Air Quality Response Program, the Air District is working to improve air quality during wildfire events. This includes providing technical assistance to local health districts and community groups, and providing air quality monitoring during wildfire events.

AB 617

Assembly Bill 617 requires the implementation of a Community Air Plan for priority communities. The Air District is working to help local health districts and community groups develop and implement their Community Air Plans.

Bay Area Air Quality Management District

FUNDING CHANGE IN OUR COMMUNITIES

The Air District is working to provide funding to support community health and environmental projects. This funding includes grants for air quality monitoring, public outreach, and community health projects.

JAMES CARTER SMITH COMMUNITY GRANTS PROGRAM

The Air District is working to provide funding to support community health and environmental projects. This funding includes grants for air quality monitoring, public outreach, and community health projects.

COMMUNITY HEALTH PROTECTION GRANTS PROGRAM

The Air District is working to provide funding to support community health and environmental projects. This funding includes grants for air quality monitoring, public outreach, and community health projects.

SCHOOL COMMUNITY GRANTS PROGRAM

The Air District is working to provide funding to support community health and environmental projects. This funding includes grants for air quality monitoring, public outreach, and community health projects.

Coming Together Interactive Website



The design firm **We The Creative** developed the print and online annual report.

2019 Annual Report

COMING TOGETHER

"AIR DISTRICT staff are in the process of assessing potential updates to the agency's permitting regulation to be more responsive to local differences in air pollution."

CLEAN CARS FOR ALL
In March 2019, the Air District launched its Clean Car for All Program providing grant funds for the purchase of environmentally-friendly vehicles to low-income residents.

85%
Of funding towards AB 1550 Areas to reduce diesel air pollution

Begin Report »

annualreport.baaqmd.gov

Coming Together Video Content



Original video content for the site includes:

- Executive Officer message
- Staff statements
- *Owning Our Air*



Social Media Promotion



Online promotion

- Facebook
- Twitter
- Instagram
- YouTube

Help increase our reach by sharing our posts!





QUESTIONS?



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

AGENDA: 25

Process for Appointment to the Air District's Advisory Council

Board of Directors Special Meeting

June 3, 2020

**Jack P. Broadbent
Executive Officer/APCO**

Air District Advisory Council Health and Safety Code



- Seven Members
- “Skilled and experienced in the fields of air pollution, climate change, or the health impacts of air pollution...selected to include a diversity of perspectives, expertise and backgrounds”
- Two-Year Terms, Reappointed up to Six Terms

Air District Advisory Council Current Status



- One member is unable to continue
- Staff will initiate recruitment
- Recommend to the Personnel Committee
- Recommend reappointment of six members

Air District Advisory Council

Current Members



Stan Hayes (Current Chair)

Principal, Environ

Stan Hayes is an engineer with more than 30 years of experience in environmental science and engineering, with particular emphasis on air impact analysis, including emissions estimation, air quality modeling, strategic and regulatory policy analysis, compliance assessment, exposure and health risk assessment and air monitoring and meteorological data analysis. He is the primary author of more than 60 scientific papers and presentations, as well as several hundred technical reports on air-related subjects.

Air District Advisory Council Current Members (cont.)



Michael T. Kleinman (Current Vice Chair)

*Professor Environmental Toxicology
Co-Director of the Air Pollution Health Effects Laboratory
Adjunct Professor in College of Medicine
University of California, Irvine*

Professor Kleinman brings expertise in the health effects of air pollution on animals and humans, as well as the development of analytical techniques for assessing biological and physiological responses to exposure to environmental contaminants and for determining concentrations of important chemical species in air.

Air District Advisory Council

Current Members (cont.)



Tim Lipman

Co- Director

UC Berkeley Transportation Sustainability Research Center

Timothy E. Lipman is an energy and environmental technology, economics, and policy researcher and lecturer with the University of California - Berkeley. He is serving as Co-Director for the campus' Transportation Sustainability Research Center (TSRC), based at the Institute of Transportation Studies, and also served as Director of the U.S. Department of Energy Pacific Region Clean Energy Application Center (PCEAC). Mr. Lipman's research focuses on electric-drive vehicles, fuel cell technology, combined heat and power systems, biofuels, renewable energy, and electricity and hydrogen energy systems infrastructure.

Air District Advisory Council

Current Members (cont.)



Jane CS Long

*Associate Director for Energy and Environment, retired
Lawrence Livermore National Lab (LLNL)*

Dr. Jane Long retired from Lawrence Livermore National Laboratory where she was the Principal Associate Director at Large, Fellow in the LLNL Center for Global Strategic Research, and the Associate Director for Energy and Environment. Her current work involves strategies for dealing with climate change including reinvention of the energy system, geoengineering, and adaptation. Dr. Long was the Department Chair for the Energy Resources Technology and the Environmental Research Departments at Lawrence Berkeley National Lab.

Air District Advisory Council

Current Members (cont.)



Linda Rudolph

Director of the Center of Climate Change and Health, Public Health Institute

- Previous Deputy Director for Chronic Disease Prevention and Public Health in the California Department of Public Health (CDPH)
- Previous Health Officer and Public Health Director for the City of Berkeley
- Founding Chair of the Strategic Growth Council's Health in All Policies Task Force
- Founding Chair California Climate Action Team's Public Health Work Group
- Previous Chief Medical Officer for Medi-Cal Managed Care
- Previous Medical Director for the California Division of Workers' Compensation
- Doctorate of Medicine, University of California San Francisco
- Master of Public Health, Epidemiology, University of California Berkeley

Air District Advisory Council

Current Members (cont.)



Gina Solomon

Clinical Professor of Medicine, University of California, San Francisco
Principal Investigator, Public Health Institute

- Environmental Protection Agency's Board of Scientific Counselors
- National Academy of Science (NAS) Board on Environmental Studies and Toxicology
- NAS Committee on Emerging Science for Environmental Health Decisions
- Previous Senior Scientist at the Natural Resources Defense Council
- Previous Deputy Secretary for Science and Health at the Cal EPA
- Published work includes cumulative impacts and environmental justice, new tools in toxicology, the health effects of diesel exhaust, endocrine disrupting chemicals, pesticides, refinery safety, and the health effects of climate change
- Doctorate of Medicine, Yale University School of Medicine
- Master of Public Health, Harvard School of Public Health

Summary of Ozone Seasons

Year	National 8-Hour	State 1-Hour	State 8-Hour
2016	15	5	15
2017	6	6	6
2018	3	2	3
2019	9	6	9
2020	0	0	0

Spare the Air Alerts (2 days): 5/25 – 5/26

Days > 0.070 ppm 8-hour NAAQS (0): None

Winter PM_{2.5} Seasons

Year	Days > 35 µg/m ³	Winter Spare the Air Alerts
2016/2017	0	7
2017/2018	8	19
2018/2019	14	16
2019/2020	0	2

- Spare the Air Alerts (2 days): 11/9 – 11/10
- Days > 35 µg/m³ 24-hr NAAQS (0): 0

Calendar Year PM_{2.5}

Year	Days > 35 $\mu\text{g}/\text{m}^3$ due to Wildfires (PM _{2.5})	Total Days > 35 $\mu\text{g}/\text{m}^3$ (PM _{2.5})	PM _{2.5} Spare the Air Alerts
2016	0	0	6
2017	14	18	33
2018	16	20	21
2019	1	1	10
2020	0	0	0

- Spare the Air Alerts (0 days): None
- Days > 35 $\mu\text{g}/\text{m}^3$ 24-hr NAAQS (0): None