OUTLINE

- Problems
- Pilot Projects
OUR HEALTHCARE SYSTEM IS THE WORST

<table>
<thead>
<tr>
<th>AUS</th>
<th>CAN</th>
<th>FRA</th>
<th>GER</th>
<th>NETH</th>
<th>NZ</th>
<th>NOR</th>
<th>SWE</th>
<th>SWIZ</th>
<th>UK</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>9</td>
<td>10</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

Exhibit 2. Health Care System Performance Rankings

Source: Commonwealth Fund analysis

WE HAVE THE HIGHEST HEALTHCARE COSTS

- 2017: $3.5 trillion (17.9% of GDP)
- Compared to similar countries
  - Per capita spending ($10,739) is twice as high
  - Administrative, labor, and drug costs are highest
  - Outpatient utilization rates are similar
  - Hospitalization rates and length of stay are lower
“Genomics is failing on diversity”
(Popejoy & Fullerton, Nature 2016)

- Less than 2% of 10,000+ National Cancer Institute studies meet minority recruitment goals
- Similar issues for heart, lung, and diabetes research

DIVERSITY IN ACADEMIC MEDICINE

- In an increasingly diverse population, diversity among researchers is crucial for more innovative, relevant and impactful science.
- In 2018, 38,000+ tenured professors in medical schools, only 4.5% are from under-represented populations:
  - 36 Native Americans
  - 708 Black
  - 971 Latinx
  - 7 Native Hawaiians/Pacific Islanders
- African Americans and Latinx are under-represented at UCSF as research assistants and coordinators, research post-docs and fellows, and research faculty
EQUITY IN HEALTH: RACE/ETHNICITY

Figure 1. Life expectancy at birth, by race and sex: United States, 1970–2017

SOURCES: CDC, National Vital Statistics System, Mortality

HEALTHCARE DISPARITIES: RACE/ETHNICITY

Disparities in Care: All Clinical Care Measures
Number of clinical care measures (of 24) for which women/men of selected racial/ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by white women/men in 2015

Women
- API vs. White: Worse than Whites (3), Similar to Whites (10), Better than Whites (11)
- Black vs. White: Worse than Whites (8), Similar to Whites (14)
- Hispanic vs. White: Worse than Whites (7), Similar to Whites (10)

Men
- API vs. White: Worse than Whites (5), Similar to Whites (10), Better than Whites (10)
- Black vs. White: Worse than Whites (9), Similar to Whites (11)
- Hispanic vs. White: Worse than Whites (9), Similar to Whites (10)

Data source: Information in this chart is from clinical quality (HEDIS) data collected in 2015 from Medicare health plans nationwide.
OUTLINE

- Problems
- Pilot Projects
Equity and Inclusion is 1 of 4 priority areas of UCSF Chancellor Sam Hawgood

Differences Matter is Dean of School Medicine Talmadge King’s plans for diversity, equity, and inclusion from 2015-2020

6 Focus Areas: Leadership, Climate & Recruitment, Learning Environment, Clinical Health Equity, Research Action Group for Equity, Pathways Outreach and Pipeline

RESEARCH ACTION GROUP FOR EQUITY (RAGE)

Charge
Increase the diversity of UCSF scientific workforce and research participants

Members
Research Development Office
Clinical and Translational Sciences Institute
San Francisco General Hospital
Children's Hospital
SFSU
Global Health
Cancer Center
Center for Prevention Studies
Clinical Research Coordinators
Multi-Ethnic Health Equity Research Center

Yazmin Carrasco, PhD
Program Analyst, Medicine
Carol Gross, PhD
Professor, Cell and Tissue Biology
Tung Nguyen, MD
Professor, Medicine
KEY RAGE PROJECTS

- Diversity among Researchers
  - Clinical Research Coordinators: Learners for Equity (CIRCLE)
  - Joining URM Students and Trainees with Investigators in Collaborations and Education (JUSTICE)
- Diversity and Inclusion for Research Participants
  - Clinical and Translational Sciences Institute (CTSI) Integrating Special Populations Core
- Systems Change
  - Accelerating Systematic Stakeholder, Patient, and Institution Research Engagement (ASPIRE)

CIRCLE: A training program to diversify the clinical research workforce and advance health equity
CIRCLE PROGRAM

- Two week summer training
  - Conduct of research, recruitment, retention, institutional review board requirements
  - Job application preparation: resume building, mock interviews
- 20 hours of "shadowing" mentor CRCs
- Preparation with UCSF Human Resources and hiring managers

CIRCLE PROGRAM OUTCOMES

- Obtained a Job at UCSF: 70%
- Applied or plans to apply to graduate/professional school: 90%
Expanding our program by inviting members of the community and current UCSF employees (as part of UCSF’s anchor initiative).

**CIRCLE COHORT #2**

What is an “anchor institution?”

Anchor institutions are place-based, mission-driven entities such as hospitals, universities, and government agencies that leverage their economic power alongside their human and intellectual resources to improve the long-term health and social welfare of their communities.

**KEY RAGE PROJECTS**

- Diversity among Researchers
  - Clinical Research Coordinators: Learners for Equity (CIRCLE)
  - Joining URM Students and Trainees with Investigators in Collaborations and Education (JUSTICE)
- Diversity and Inclusion for Research Participants
  - Clinical and Translational Sciences Institute (CTSI) Integrating Special Populations Core
- Systems Change
  - Accelerating Systematic Stakeholder, Patient, and Institution Research Engagement (ASPIRE)
JOINING URM STUDENTS AND TRAINEES WITH INVESTIGATORS IN COLLABORATIONS AND EDUCATION (JUSTICE)

- NIH Diversity Supplements provide additional funding for all levels of under-represented minority trainees, from high school to the junior faculty level, to work on an existing NIH-funded project.

- JUSTICE aims to increase the number of DS funded at UCSF and leverage the possibility of funding to generate new mentor-mentee relationships between UCSF researchers and URM trainees.

JUSTICE ACTIVITIES

- UCSF website with DS resources
- Streamline Human Resources onboarding
- Outreach to build awareness of DS among researchers and trainees
FACILITATE MENTOR/MENTEE MATCHMAKING
MATCHMAKING EVENT AND DATABASE

Description:
- Yearly event (January)
- Series of short interviews (10 minutes) between HU-trainees and faculty with similar research interests.
  - Each faculty and trainee had 6-8 interviews
  - A total of 160 individuals attended the event: 82 Faculty and 72 Trainees
- Database for virtual matchmaking
- Trainees who make a match will have the opportunity to apply to the UCSF PROPEL Program, a new post-baccalaureate program.

JUSTICE OUTCOMES

- **41 matches** made as part of our DS matchmaking efforts (~4X difference from 2021 compared to 2020); 33 participating in UCSF’s postbaccalaureate program (PROPEL)
- **47 Diversity Supplements** have been awarded for $3.3 Million
- Dispersed **14 awards** (13 $10k award; 1 $20K award) from internal funds.
- Two manuscripts in progress
POSTBACCALAUREATE MATCHMAKING EVENT 2022

EVENT DATE: Wednesday, January 19, 2022 from 9am-1pm
REGISTER by December 1st, 2021 at

https://justice.ucsf.edu/
FAQ
https://justice.ucsf.edu/faq-trainees

KEY RAGE PROJECTS

- Diversity among Researchers
  - Clinical Research Coordinators: Learners for Equity (CIRCLE)
  - Joining URM Students and Trainees with Investigators in Collaborations and Education (JUSTICE)
- Diversity and Inclusion for Research Participants
  - Clinical and Translational Sciences Institute (CTSI) Integrating Special Populations Core
- Systems Change
  - Accelerating Systematic Stakeholder, Patient, and Institution Research Engagement (ASPIRE)
NIH “Special Populations”
- Geriatric, pediatric, racial/ethnic minorities
- 14%, 23%, and 63% of the California population

Integrating Special Populations Core Objectives:
- Increase involvement, recruitment, and retention of special populations in clinical and translational research
- Train researchers to integrate special populations in their work

ISP CORE GENERAL PRINCIPLES
- Representation of “special populations” at faculty, staff, and community level
  - Faculty: Tung Nguyen, Monica McLemore, Alicia Fernandez, Janice Tsoh, Ken Covinsky, Rebecca Sudore, Anda Kuo, Roberta Keller
  - Staff: Coordinators from each of the special populations
  - Community leaders: from each of the special populations
INCREASE INTEGRATION OF SPECIAL POPULATIONS

- Monthly SPHERE Meetings for strategic planning and implementation
- Community engagement activities with special populations
  - Planning activities
  - List of community reviewers
  - Virtual Feedback Advisory Platform (VFAB) online software to connect researchers with project-specific SPHERE community reviewers and others
- Print and web-based materials on best practices for special populations
- Development of consent and recruitment materials, with professional plain language consultant to generate literacy, culturally, and linguistically appropriate materials

INCREASE INTEGRATION OF SPECIAL POPULATIONS

- Recruitment service: to assist researchers in identifying potential special population study participants
  - Navigator
  - Assist with special populations recruitment through:
    - Facebook, Instagram, Google, Twitter
    - Electronic health record patient portal
    - Traditional ethnic media such as Spanish-language radio stations or Chinese-language newspapers
    - Community-based organizations
  - Build participant list for special populations
ENHANCE TRAINING IN RESEARCH WITH SPECIAL POPULATIONS AND ENABLE WORKFORCE HETEROGENEITY

- “Collaborative learning” approach to train translational researchers (research staff, medical students, residents, post-docs, fellows, and K Scholars) to work with diverse populations.
  - Research trainees learn from patients, community leaders, and other experts
  - Research trainees teach co-learners about clinical and translational science behind the research topics.

Diversity among Researchers

- Clinical Research Coordinators: Learners for Equity (CIRCLE)
- Joining URM Students and Trainees with Investigators in Collaborations and Education (JUSTICE)

Diversity and Inclusion for Research Participants

- Clinical and Translational Sciences Institute (CTSI) Integrating Special Populations Core

Systems Change

- Accelerating Systematic Stakeholder, Patient, and Institution Research Engagement (ASPIRE)
Principles

- Diverse patient and community engagement is necessary to make health research more impactful and to attain health equity
- Institutional structural changes are needed to improve patient and community engagement in health research at UCSF

ASPIRE ACTIVITIES

- Advisory Board meetings with institutional leaders, researchers, patients, and community leaders
- Needs assessment survey and focus groups of researchers, patients, and community leaders
- Asset mapping
- Symposia
ASPIRE 2019 SYMPOSIUM

- 75 UCSF and 36 community/patient in-person participants, and 85 IP addresses accessed the livestream.
- Overview on stakeholder engaged research
- Presentation of needs assessment survey, focus groups and Advisory Board input
- Poster presentations of successful partnerships.
- Breakout sessions for recommendations to UCSF.
- Presentation of recommendations to UCSF leaders.

ASPIRE 2020: PANDEMIC PIVOT

- Focus on COVID pandemic and racism epidemic
- Obtained supplement to create institutional Patient and Community Advisory Board (PCAB) for COVID research
- Provided PCAB reviews and advice to 25 UCSF research teams
ASPIRE 2020 SYMPOSIUM

- 100+ attendees, ~1/3 patient/community
- Reviewed accomplishments and challenges
- Breakout groups generated recommendations

ASPIRE IMPACT AND OUTCOMES

- Systematically collected stakeholder input on research structures and processes and facilitated the process of having patient and community stakeholders deliver the input and recommendations directly to institutional leaders
- Increased stakeholder engagement in research projects
- UCSF COVID-19 Patient and Community Advisory Board
- Recommendations incorporated into School of Medicine’s 5-year strategic plan
- Recommendations led to significant changes in the CTSI renewal, with inclusion of a CTSI CAB, Community Core, Special Populations Core, and Policy Core
- Catalyst for multiple PCORI-funded grants: Black Health Initiative, Pediatric Transplant, others
- Catalyst for UCSF Office of Research Task Force on Anti-Racism and Health Equity in Research
CONCLUSIONS

- Our healthcare system produces inadequate and inequitable health outcomes
- Inclusive, diverse, and equitable research teams are needed to generate science that will benefit all, not just some
- Patient and community engagement are necessary for research with the greatest impact on health and health equity
- Structural changes are needed in the research enterprise of the U.S.
- Promising pilot projects have shown that structural changes are possible at UCSF