Session Objectives:

1. Identify infrastructure needed to support data transparency.

2. Align data collection and analysis with intended purpose of achieving health equity.

3. Recognize the multiple levels and modalities required to achieve transparency and effect health equity.
Data Analyses

Haruna (Hana) Feldman, PhD, MPH
Chief Data Officer
County of San Diego
Data Analyses

The Three “S”:

- **Structure**
- **Staff**
- **Stuff**
Structure

Structure for optimal operations and support

- **Operational**
  - Organization chart with clear roles/responsibilities
    - Improve communications among groups (e.g., weekly meetings, frequent check-ins)
    - Help prioritize tasks
    - Better manage staff time and effort
    - Known contacts for getting quick answers
      - County Counsel, Compliance, Privacy, Human Resources, Joint Information Center, etc.
  - Established relationships with other County department data stewards
    - Routine data reporting processes and collaboration

- **Executive support**
  - Help prioritize requests for staff and equipment
  - Direct access to leadership and decision makers

- **Information Technology**
  - On-site support and “fast-track” support tickets
Staff

Right people with the right skills sets

- **GIS**
  - geocoding
  - visualizations and dashboards
  - analyses
  - QA

- **Data**
  - cleaning and merging
  - analyses
  - visualizations
  - QA
Equipment

- **Hardware**
  - Standard desktops took too long to run analyses
  - Standard laptops never meant to analyze millions of records
  - Internet connection slower in some buildings than others
  - Remote connection issues for teleworking staff

- **Software**
  - New teleworking platforms on top of current software programs
  - Data analyses
  - Internal/operations dashboards
  - Public visualizations
  - Open data portals
Data Into Action

Seema Shah, MD
Medical Director, Epidemiology and Immunization Services
County of San Diego
Health and Human Services Agency
Public Health Services
"Without data you’re just another person with an opinion."

- W. Edwards Deming
I have data, now what do I do with it?
General Principles

- Transparent
- Consistent
- Easy to interpret
Who is this data intended for?

- Public
- Epidemiologists
- Action Takers
- Leaders
What message are you trying to convey?

“WE ARE DOING SOMETHING”

“WE ARE WORKING ON IT”

“HOUSTON, WE HAVE A PROBLEM”
How do you want to display the data?

TABLE
CHART
MAPPING
People of Color Disproportionately Affected
<table>
<thead>
<tr>
<th>Selected Characteristics</th>
<th>12 Years and Older Population</th>
<th>Total Vaccinated</th>
<th>Percentage of Total Vaccinated</th>
<th>Percentage of Population Vaccinated</th>
<th>Vaccination Rate per 1,000*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,833,418</td>
<td>2,232,455</td>
<td></td>
<td>78.8%</td>
<td>787.9</td>
<td></td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>875,894 (30.9%)</td>
<td>659,106</td>
<td>29.5%</td>
<td>75.2%</td>
<td>752.5</td>
</tr>
<tr>
<td>White</td>
<td>1,317,801 (46.5%)</td>
<td>849,717</td>
<td>38.1%</td>
<td>64.5%</td>
<td>644.8</td>
</tr>
<tr>
<td>Black or African American</td>
<td>143,625 (5.1%)</td>
<td>67,246</td>
<td>3.0%</td>
<td>46.8%</td>
<td>468.2</td>
</tr>
<tr>
<td>Asian</td>
<td>375,319 (13.2%)</td>
<td>266,889</td>
<td>12.0%</td>
<td>71.1%</td>
<td>711.1</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>12,421 (0.4%)</td>
<td>15,129</td>
<td>0.7%</td>
<td>99%^</td>
<td>999.0^</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>19,180 (0.7%)</td>
<td>9,386</td>
<td>0.4%</td>
<td>48.9%</td>
<td>489.4</td>
</tr>
<tr>
<td>Other/Multiple Race</td>
<td>89,178 (3.1%)</td>
<td>235,127</td>
<td>10.5%</td>
<td>99%^</td>
<td>999.0^</td>
</tr>
<tr>
<td>Race and Ethnicity Unknown</td>
<td>129,855</td>
<td></td>
<td>5.8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 14. Confirmed Case Rate by Zip Code of Residence, 9/5/2021-9/18/2021, San Diego County
(Countywide Rate = 295 per 100,000 Population)

Rate per 100,000 population

- ≤198
- 199 - 287
- 288 - 395
- ≥396
- <5 cases or 10,000 population (rate not calculated)
Figure 21. Vaccination Progress by Healthy Places Index Quartile,*
San Diego County Residents Age 12 Years and Older

- Quartile 1: 696,294 individuals, 15.9% fully vaccinated, 7.4% partially vaccinated, 76.7% not vaccinated
- Quartile 2: 708,727 individuals, 25.0% fully vaccinated, 7.6% partially vaccinated, 67.4% not vaccinated
- Quartile 3: 701,259 individuals, 26.6% fully vaccinated, 8.5% partially vaccinated, 64.9% not vaccinated
- Quartile 4: 681,633 individuals, 25.4% fully vaccinated, 8.9% partially vaccinated, 60.5% not vaccinated

* Indicates the quartile's position in the Healthy Places Index, with Quartile 1 being the most healthy and Quartile 4 the least healthy.
San Diego County Residents Fully Vaccinated by Week

% of People **Fully Vaccinated** over Time in San Diego County

Sample interpretation: Of the individuals fully vaccinated during the week ending 3/27/21, 29% reside in HPI Quartile 1, 28% in HPI Quartile 2, 25% in HPI Quartile 3, and 18% in HPI Quartile 4 also referred to as the Health Equity Quartile.

Source: San Diego Immunization Registry, data through 9/18/21, 9/20/21 update
Challenges

- Give them an inch...
- Interpretation of data
- Misinformation
"If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask, for once I know the proper question, I could solve the problem in less than 5 minutes."

- Albert Einstein
Footnotes

- Data are preliminary and subject to change
- Rates are calculated using 2019 population estimates from the San Diego Association of Governments
- Persons of Hispanic/Latino ethnicity may belong to any race group. All categories except Hispanic/Latino include persons for whom race is known but ethnicity is non-Hispanic or unknown. SDIR categorizes "Multiple Races" as "Other Race" so all people who report being multiple races are categorized as "Other Race." "Other Race" may not have a standardized definition across data collecting entities or among patients reporting their own demographics
Data Sharing: Transparency

Denise Foster, DNP, RN, PHN, NE-BC
Chief Nursing Officer
County of San Diego
Health and Human Services Agency
Medical Care Services Division
Who? What? Why?
Commitment to Data Sharing

- Responsibility to Inform the Public
  - Regular press conferences
  - Townhalls
  - Website
  - Social media
Transparency: Colleagues

Building Equity through Data

- Clinical Advisory Council
  - Determine Vaccine Allocation in a fair and equitable manner
  - County and Community Clinical Leaders
    - County Public Health
    - Hospitals
    - FQHC
    - Providers
    - Tribal and rural communities
    - LTCFs
    - Professional Organizations
Transparency

Building Equity Through Data

- San Diego County COVID-19 Health Equity Taskforce
  - Multicultural Health Foundation
  - Focused decreasing disparities in minority communities—specifically Black/AA communities
  - Providing community outreach, vaccinations and testing services
Transparency: Internal Communication

- Leadership
- Logistics
- Operations
- Customer Service
- Staff Engagement
Transparency: Community Sector Support

- Businesses and Employers
- Child Care Services
- Cities, Government and Tribal Nations
- Community-Based Organizations
- Faith-Based Organizations
- Health Professionals
- Homeless Sector
- Long-Term Care and Residential Care Facilities
- Military and Veterans
- Older Adult and Disability
- Restaurants, Food, and Beverage Providers
- Schools: K-12
- Schools: Colleges and Universities