The California Community Burden of Disease and Cost Engine (CCB) and other Extraordinary Community-Level Information for Action

NOTE: This presentation is still under development.
Outline

- Background
  - Extraordinary Community-Level Data Sources
  - CCB
- Overview and Demo
- Local Health Jurisdiction Topics
  - Local Installation
  - Cause Lists
  - Measures and methods
- Roadmap
- How can you use the CCB as it is?
- How can you use the CCB if we make what kinds of changes?
- Discussion
California Community Burden of Disease and Cost Engine (CCB)

- A health burden visualization tool
- One of the ways the Fusion Center is working to explore the lens of place and its impact on health disparities.
2018 Areas of Action

**Let’s Get Healthy California**
- LGHC Refresh
- Leadership Convening
- Statewide Conference
- CHHS Governance
- Data Update and Website Revamp
- Focus Area Pilots

**Emerging Issues**
- Opioid Overdose Prevention
- Violence Prevention Initiative
- Cannabis Matrix Management

**Regional Disparities & Place Based Initiatives**
- California Community Burden of Disease Engine (CCB)
- Place Based Initiative Linkages
- Resource and Impact Map Pilot

**Employee Engagement**
- Town Halls
- PH Navigation Series
- Communities of Practice
- User-Centered Analysis for Intranet Redesign
- Open Opportunities
CCB Overview

- 17 years of California death data
- County, community, and census tract levels
- Global Burden of Disease condition grouping, modified for California Public Health
- Interactive rankings, trends & maps
- Pilot set of social determinants of health data
- For CDPH programs, local health departments, and community partners
- For epidemiologic analysis and systematic scientific insight for allocation of resources, evaluation of interventions, and program planning
- Pilot component of CDPH Ecosystem of Data Sharing project
- Nimble modular development using open-source tools, with goal to share tools and resources with outside partners
The interactive map allows for zooming in and out to see streets or other geographically identifying locations.

Also, the interactive map has a pop-up which display information for the geography selected.

This tab displays cause-of-death rankings for either a selected county or the whole state. The figure shows the ranking based on five different measures, and can be sorted based on any of these measures using the Measure Sort Order tool.
This tab displays the ranked order of counties in California or the communities within a selected county for a selected condition. These rankings highlight places where a particular condition is the highest as well as highlighting geographical disparities of the condition.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rank</th>
<th>Cause/Death Rate</th>
<th>Age-Adjusted Death Rate</th>
<th>Years of Life Lost (YLL)</th>
<th>% of 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>All causes total</td>
<td>8</td>
<td>3.9</td>
<td>1.5</td>
<td>10.2</td>
<td>19.3</td>
</tr>
<tr>
<td>Heart disease</td>
<td>7</td>
<td>7.3</td>
<td>1.2</td>
<td>12.0</td>
<td>23.9</td>
</tr>
<tr>
<td>Unintentional injuries</td>
<td>6</td>
<td>9.8</td>
<td>1.2</td>
<td>12.0</td>
<td>22.3</td>
</tr>
<tr>
<td>Malignant neoplasms</td>
<td>5</td>
<td>5.8</td>
<td>1.2</td>
<td>12.0</td>
<td>21.1</td>
</tr>
<tr>
<td>Diagnosed diabetes mellitus</td>
<td>4</td>
<td>3.8</td>
<td>1.2</td>
<td>12.0</td>
<td>19.9</td>
</tr>
<tr>
<td>Chronic lower respiratory diseases</td>
<td>3</td>
<td>2.8</td>
<td>1.2</td>
<td>12.0</td>
<td>18.9</td>
</tr>
<tr>
<td>Mental health disorders</td>
<td>2</td>
<td>2.8</td>
<td>1.2</td>
<td>12.0</td>
<td>18.9</td>
</tr>
<tr>
<td>Stroke</td>
<td>1</td>
<td>1.8</td>
<td>1.2</td>
<td>12.0</td>
<td>17.9</td>
</tr>
</tbody>
</table>
This graph displays the **trend** over time for a particular condition within a selected geography, separately for males, females, and the total population. Reviewing the trend over time is important for understanding which problems are improving and which are getting worse.

This tab is preliminary and under development.

This scatter plot displays the correlation of a selected **Social Determinant of Health** measure with a selected condition. Each dot maps the value of the social determinant measure against the value of the condition measure for one geographic unit (county, community, or census tract).
Age-Adjusted Death Rate from Alzheimer's disease and other dementias in 2013-2017 by Community in Sacramento
California Community Burden of Disease and Cost Engine (CCB) Road Map:

- Work in progress; evolving toolset of new content and functionality

- Examples of upcoming development enhancements:
  - Hospital discharge and emergency department data
  - Cost (charges) data based on hospital discharge
  - Life expectancy estimates at the census tract, community, and county levels
  - Incorporation of IHME California Disability Adjusted Life Years Estimates
  - Incorporation of 'multiple cause of death' and 'out of state' death data files
  - Expanded range and analysis of social determinants data
  - Additional displays of statistical significance
  - Enhanced user interface
  - Automated report generation

Fusion Center for Strategic Development & External Relations
CCB Public URL:
https://cdph.ca.gov/communityBurden/

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