Key Data for Sacramento County
Cardiovascular Disease and Diabetes

The Right Care Initiative (RCI) is dedicated to improving cardiovascular and diabetes outcomes by catalyzing uptake of patient-centered, evidence-based practices using performance data to drive improvement among health systems, medical groups, clinics, and health plans. Based at UC Berkeley School of Public Health, this public-private partnership was launched in 2008 by the UC Berkeley and UCLA Schools of Public Health with the CA Department of Managed Health Care. RCI includes health system leaders, patients groups, the University of California (multiple campuses), USC, Stanford, Health Services Advisory Group (CMS QIO), CA Chronic Care Coalition, and RAND. We collaborate intensively with local leaders in 3 major metro areas: San Diego, Sacramento, and Los Angeles. Right Care’s first University of Best Practices (UBP) launched in San Diego in February of 2011; the 2nd in Sacramento 2012. UBP gathers health leaders for top performers to teach proven strategies, practices, and breakthrough ideas to prevent heart attacks, strokes, and diabetic complications.

University of Best Practices: Right Care’s Translational Model to Implement Evidence-Based Innovations
- Monthly 2-hour convenings are held with leaders from the major regional health care delivery systems.
- Leaders from successful organizations or experts present in the 1st hour.
- A break-out session or discussion involving all participants follows in the second hour to consider how to apply the speaker’s ideas in the local setting and to problem-solve how to overcome barriers to better uptake of evidence-based protocols and practices.
- Trusted performance data is the bedrock of the UBP model.

Key Statistics
- Mortality rates in Sacramento County for diabetes, coronary heart disease, and stroke are higher compared to the state. Figure 1.
- Sacramento has higher hospitalization rates for acute myocardial infarction (MI) and stroke compared with California overall (OSHPD).
- Sacramento County has the 2nd worst rate of MIs in CA.
- There are large disparities by race for cardiovascular hospitalizations and risk factors. Figs. 4 and 6.
- Many counties are leading Sacramento on lowering risks. Table 1.

Figure 1: Average age-adjusted death rate (2013-2015). Source: California Department of Public Health. County Health Status Profiles 2017

Figure 2: 2014 Age-adjusted hospitalization rate of myocardial infarction and stroke without TIA. Source: California Office of Statewide Health Planning and Development’s Patient Hospitalization Discharge Data

Figure 3: 2014 Age-adjusted MI Hospitalization rate in Sacramento stratified by sex. Source: California Office of Statewide Health Planning and Development’s Patient Hospitalization Discharge Data

Figure 4: 2014 Age-adjusted Stroke Hospitalization rate in Sacramento stratified by sex. Source: California Office of Statewide Health Planning and Development’s Patient Hospitalization Discharge Data
Sacramento Myocardial Infarction Hospitalization Rates by Race, 2014

Figure 5: 2014 Age-adjusted MI Hospitalization rate in Sacramento stratified by race
Source: California Office of Statewide Health Planning and Development's Patient Hospitalization Discharge Data

Sacramento Stroke (without TIA) Hospitalization Rates by Race, 2014

Figure 6: 2014 Age-adjusted Stroke Hospitalization rate in Sacramento stratified by race
Source: California Office of Statewide Health Planning and Development’s Patient Hospitalization Discharge Data

Sacramento Self-Reported Risk Factors - California Health Interview Survey, 2011-2014

Figure 7: Self-reported Cardiovascular Risk Factors from 2011-2014 publicly available data (California Health Interview Survey).
Source: Dingbaum, Darsie, Ivey et al., California Department of Public Health Analysis, 2016 (CHIS 2011-2014 Adult Public Use File).

Sacramento Self-Reported Risk Factors by Race/Ethnicity, CHIS, 2013-2014

Figure 8: Self-reported Cardiovascular Risk Factors by race from 2013-2014 publicly available data (California Health Interview Survey).
Source: Dingbaum, Darsie, Ivey et al., CA Department of Public Health Analysis, 2016 (CHIS 2011-2014 Adult Public Use File).
Table 1: Data are age adjusted from pooled CHIS 2011-2014. Ranks are from 1-44 with 1 having the lowest prevalence, and 44 having the highest; small counties were pooled to create stable estimates. All estimates reported are stable. Source: Dingbaum, Darsie, Ivey et al., CA Department of Public Health Analysis, 2016 (CHIS 2011-2014 Adult Public Use File).

### Age-Adjusted Prevalence of Self-Reported Cardiometabolic and Other Risk Factors for Adults in California Counties (Percent (rank))

<table>
<thead>
<tr>
<th>County</th>
<th>Diabetes (% (rank))</th>
<th>Obesity (% (rank))</th>
<th>Hypertension (% (rank))</th>
<th>Heart Disease (% (rank))</th>
<th>Smoking Status (% (rank))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calaveras (grouped)</td>
<td>5.36 (5)</td>
<td>22.25 (14)</td>
<td>25.22 (12)</td>
<td>5.19 (6)</td>
<td>16.10 (29)</td>
</tr>
<tr>
<td>Alameda</td>
<td>6.41 (8)</td>
<td>20.87 (9)</td>
<td>25.52 (14)</td>
<td>5.49 (7)</td>
<td>11.97 (12)</td>
</tr>
<tr>
<td>Placer</td>
<td>6.66 (11)</td>
<td>20.87 (9)</td>
<td>20.83 (2)</td>
<td>6.75 (29)</td>
<td>10.03 (6)</td>
</tr>
<tr>
<td>Contra Costa</td>
<td>6.79 (12)</td>
<td>22.06 (13)</td>
<td>25.38 (13)</td>
<td>4.58 (2)</td>
<td>14.10 (22)</td>
</tr>
<tr>
<td>Yolo</td>
<td>6.97 (13)</td>
<td>21.36 (10)</td>
<td>26.48 (19)</td>
<td>6.83 (31)</td>
<td>7.59 (1)</td>
</tr>
<tr>
<td>El Dorado</td>
<td>7.10 (15)</td>
<td>21.39 (11)</td>
<td>24.47 (9)</td>
<td>5.77 (12)</td>
<td>18.15 (38)</td>
</tr>
<tr>
<td>San Diego</td>
<td>7.40 (22)</td>
<td>23.06 (16)</td>
<td>26.18 (17)</td>
<td>5.86 (14)</td>
<td>12.51 (16)</td>
</tr>
<tr>
<td>Colusa (grouped)</td>
<td>7.79 (23)</td>
<td>26.34 (24)</td>
<td>33.86 (43)</td>
<td>7.90 (34)</td>
<td>18.56 (39)</td>
</tr>
<tr>
<td>State Rate</td>
<td>8.38</td>
<td>25.22</td>
<td>27.20</td>
<td>6.09</td>
<td>12.98</td>
</tr>
<tr>
<td>Sacramento</td>
<td>8.82 (26)</td>
<td>29.41 (31)</td>
<td>29.47 (31)</td>
<td>5.18 (5)</td>
<td>16.29 (31)</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>9.05 (29)</td>
<td>33.85 (35)</td>
<td>32.04 (35)</td>
<td>9.83 (41)</td>
<td>16.97 (35)</td>
</tr>
<tr>
<td>Sutter</td>
<td>10.25 (34)</td>
<td>31.61 (32)</td>
<td>32.73 (40)</td>
<td>8.92 (39)</td>
<td>15.01 (24)</td>
</tr>
<tr>
<td>Solano</td>
<td>11.76 (37)</td>
<td>28.74 (29)</td>
<td>33.99 (44)</td>
<td>8.43 (37)</td>
<td>15.44 (27)</td>
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<tr>
<td>Stanislaus</td>
<td>13.12 (42)</td>
<td>33.86 (36)</td>
<td>29.19 (30)</td>
<td>6.27 (23)</td>
<td>15.11</td>
</tr>
</tbody>
</table>

Table 2: Age-adjusted Mortality Rates for Coronary Heart Disease. Source: County Health Status Profiles 2017 Report, California Department of Public Health

### Comparing Counties – Coronary Heart Disease
Three Year Averaged, Age-adjusted Mortality Rates (2013-2015)

<table>
<thead>
<tr>
<th>County</th>
<th>Age-adjusted Death Rate</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>62.1*</td>
<td>58.5</td>
</tr>
<tr>
<td>San Diego</td>
<td>85.9*</td>
<td>82.7</td>
</tr>
<tr>
<td>State Rate</td>
<td>93.2*</td>
<td>92.2</td>
</tr>
<tr>
<td>Sacramento</td>
<td>106.0*</td>
<td>100.7</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>109.7*</td>
<td>107.7</td>
</tr>
</tbody>
</table>

*Statistically Significant

Table 3: Age-adjusted Mortality Rates for Stroke. Source: County Health Status Profiles 2017 Report, California Department of Public Health

### Comparing Counties – Stroke
Three Year Averaged, Age-adjusted Mortality Rates (2013-2015)

<table>
<thead>
<tr>
<th>County</th>
<th>Age-adjusted Death Rate</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>26.1*</td>
<td>23.8</td>
</tr>
<tr>
<td>San Diego</td>
<td>33.0</td>
<td>31.0</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>33.1</td>
<td>31.9</td>
</tr>
<tr>
<td>State Rate</td>
<td>34.7</td>
<td>34.2</td>
</tr>
<tr>
<td>Sacramento</td>
<td>40.8*</td>
<td>37.5</td>
</tr>
</tbody>
</table>

*Statistically Significant
Figure 9: Age-Adjusted Hospitalization Rate for Myocardial Infarction (2010-2014 Office of Statewide Health Planning and Development)

Comparing County Trends - Myocardial Infarction Hospitalization Rate, 2010-2014

Figure 10: Age-Adjusted Hospitalization Rate for Stroke with TIA (2010-2014 Office of Statewide Health Planning and Development)

Comparing County Trends - Stroke with TIA Hospitalization Rate, 2010-2014

Figure 11: Age-Adjusted Hospitalization Rate for Stroke without TIA (2010-2014 Office of Statewide Health Planning and Development)

Comparing County Trends - Stroke without TIA Hospitalization Rate, 2010-2014
Sacramento Mortality Hot Spots for Diabetes, Heart Disease, Hypertension, and Stroke (2007-2011)

Figure 12: Sacramento County Hot Spots for Diabetes, Heart Disease, Hypertension and Stroke Mortality Rates (2007-2011)
Source: California Department of Public Health, Map 3,4,5,6. County Health Status Profiles 2017.
Sacramento County has:

- Higher rates of smoking than the state average
  - Encourage primary care physicians to ask about smoking as a vital sign during every visit.
  - Provide brief cessation counseling for smokers which can also help physicians meet meaningful use.
- Higher rates of obesity than the state average
  - Encourage measurement of BMI regularly in primary care; ensure patients are aware of obesity-related risks.
  - Develop a plan with patients for addressing obesity; provide solid evidence to promote diet and physical activity changes.
  - Work to ensure all communities have access to safe, affordable options for healthy diets and physical activity in their neighborhoods.
- Higher rates of hypertension than the state; high rates of uncontrolled hypertension, especially for African Americans
  - Ensure that the most recent medication protocols and guidelines for hypertension are actively being upheld by care teams including monitoring of quality indicators and promotion of evidence-based treatment.
  - Improve community outreach about hypertension as a silent killer targeting places where people meet – churches, synagogues, barbershops, community and senior centers among others.
  - Improve medication adherence by utilizing health coaches to activate patients via motivational interviewing and evidence-based media messaging.
  - Consider having pharmacists more actively engaged on the care team.
  - Provide information about best practices for treating hypertension to local primary care providers.
  - Examine air pollution in relationship to cardiovascular disease in Sacramento County.
- Disparities in hypertension among different race/ethnicities; African American, API and Hispanic rates of hypertension are much higher than the rest of the state while White rates are only a little higher.
  - Act to address key disparities in hypertension among different race/ethnicities, with African Americans, API and Hispanic rates of hypertension being much higher than the rest of California while White rates are only a little higher.
  - Help physicians learn about, and learn to ask their patients about determinants of health including whether medication costs are within budget.
  - Provide medical practices information about how to use culturally aligned, linguistically appropriate health coaches to bridge the gaps in care, to enable better care for specific populations we serve.
  - Form connections between medical practices and community programs that can expand outreach and care (senior centers, community-based organizations, parish nurses) about hypertension and diabetes.
  - Apply evidence-based elements of the Right Care triangle in Sacramento County.

Bibliography