THE HEALTH FORECASTING TOOL: Providing evidence-based data to hospitals for short- and long-term strategic community benefit planning

Improve health outcomes
Forecast health status in your catchment area
Assess the future impact of today’s interventions
Anticipate, prepare, and plan for healthier communities

Supported by a grant from the UniHealth Foundation
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Section 1: Introduction to the Health Forecasting-UniHealth Project

Benefits of using the Health Forecasting Tool for community benefit planning

Making informed policy and programmatic public health decisions today means preparing and planning for what the population health landscape will look like tomorrow.

Government mandates and non-profit tax exemptions require nonprofit hospitals to engage in activities that benefit the health of the surrounding community.

Through the development of community benefit plans and needs assessments, nonprofit hospitals must demonstrate the added value of their charity care contributions to improve and promote health in their hospital’s service planning area.

Thanks to the support of UniHealth Foundation, we have expanded the Health Forecasting Tool to include evidence-based health forecasts for hospitals committed to providing the highest quality healthcare in the most efficient and effective manner.

Nonprofit hospitals can use Health Forecasting reports as a tool to:

- **Customize** data to reflect the hospital’s service planning area to examine health outcomes salient to your community

- **Focus data analysis** on one segment of a hospital’s population
  - Would you like to know how many Latinos living in your service area currently have diabetes?
  - How many more will be diagnosed with diabetes in the future?
  - What is the ethnic distribution of coronary heart disease in your community?
  - Will obesity continue to be a growing problem?

- **Compare** evidence-based interventions to reduce chronic disease among your population, as a whole or among different subgroups
  - Approximate the health impact into the future
  - Assess the effect of various interventions in a manner that is low-cost and with minimal commitment of resources

- **Identify, implement, and evaluate** effective interventions using the tool as a guide
What is forecasting?

Every day business and economic forecasts move billions of dollars through the economy.

More than ever before, technological advancements have enabled forecasting to develop into an increasingly scientific field. Businesses, governments, transportation analysts, product developers, distribution supply chain managers, and many other sectors rely on forecasts as an actionable decision tool to understand their current environment and as a means to plan accordingly for maximizing their performance in the future state of their world.

Businesses use forecasting as a tool to:

- **analyze** consumer trends
- **plan** product distribution
- **identify** weaknesses and potential areas for improvement
- **determine** corrective action for maximizing profit margin

Businesses use forecasts. Governments forecast. Why not forecast health?

What is Health Forecasting?

Founded ten years ago in 2002, Health Forecasting- UCLA was established to provide new and valuable information to decision-makers and health advocates about the future health status of the population based on current trends in chronic diseases, socioeconomic and demographic patterns and expected trajectories, and potential changes in policies and programs.

Health forecasting can be used as a tool to:

- **analyze** chronic disease trends
- **plan** resource distribution to areas or populations with the most need
- **identify** weaknesses in community health and potential areas for improvement
- **determine** corrective actions for improving health and reducing disparities

Our mission is to provide sound, credible forecasts to support policy decisions that improve population health and reduce health disparities, by using the best available research evidence and microsimulation analysis.
Section 1: Introduction to the Health Forecasting-UniHealth Foundation Project

Overview

What is the Health Forecasting Tool?

The Health Forecasting Tool allows decision-makers to:

- examine current and future health status at the population-level;
- determine the impacts of different interventions; and
- make informed decisions about which programs or policies to implement.

How does it work?

Our forecasts are generated for web users via a three-step process. See the process diagram below:

Process diagram explanation:

**Process 1- Data Source Integration:**

- Relevant data from various sources are compiled and literature is reviewed.
- This step sets the foundation for the microsimulation model forecasts.
What is the Health Forecasting Tool?

Process 2- The Microsimulation Model:

- A microsimulation computer model developed and maintained by UCLA researchers takes the data compiled in Process 1 (Data Source Integration) and simulates a virtual population of Los Angeles County.

- The continuous-time simulation is carried out at the individual-level and combines demographic data, risk factors, and population trends.

- Evidence-based effect estimates for various health conditions are applied to the population model to forecast future health and health-related outcomes.

Process 3- The Online Tool Interface:

- A web-based interface organizes, summarizes and communicates results from the model and provides forecasts of health outcomes.

- The tool is accessible online and allows anyone, from high-level government officials to members of the community to:
  - create customizable charts and reports using data from authoritative sources for a population that mirrors the user’s community
  - analyze health status at the population-level
  - compare outcomes from baseline (‘status quo’) to post-intervention health outcomes from the user’s specific community
Section 1: Introduction to the Health Forecasting-UniHealth Foundation Project

Overview

What is the Health Forecasting Tool?

**The Health Forecasting Tool:**

- combines recorded data derived from various resources, such as the Census, Centers for Disease Control and Prevention, California Department of Education and Department of Finance among other sources (See page 20 for a listing of sources)

- accounts for socio-economic factors, behavioral characteristics, demographic shifts in population and epidemiological progression of disease to forecast population-level health

- gauges the future health impacts of changes in programs and policies

**Users can:**

- access current population-level health data and projected health outcomes for populations and subgroups by:
  - ethnicity
  - age
  - gender
  - educational attainment
  - income
  - geography

- create a personalized study population to analyze health trends in their community

- export data to Microsoft Excel for further analysis

- Compare the impact of different policies, programs, and interventions to evaluate for effectiveness

**Chart: Population Growth by Ethnicity**

**Location:** Glendale Adventist Medical Center

By clicking 'Export to Excel' you can further assess these trends: Between the years 2010 and 2030, there will be:

- ↑ 30% growth among Asian-American/Pacific Islanders
- ↑ 34% growth among Hispanic population
- ↓ 20% decrease among African-Americans
- ↓ 26.5% decrease in non-Hispanic Whites
There are three types of reports with varying degrees of analysis:

<table>
<thead>
<tr>
<th>Type of report</th>
<th>Type of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Quick reports</td>
<td>General overview</td>
</tr>
<tr>
<td>2) Basic reporting</td>
<td></td>
</tr>
<tr>
<td>3) Advanced reporting</td>
<td>Fine granular</td>
</tr>
</tbody>
</table>

More information on the different types of reports and their functions are available in Section 2 beginning on page 15.

Drop-down menu
- A full view of the drop-down menu becomes visible upon clicking the green triangle, as shown here:

Color scheme
- The following color scheme reflects the progression of time:
  - Blue/green colors indicate historical, recorded data pulled from various sources
  - Orange/yellow colors represent the microsimulation model’s forecast figures
Section 2: Learn how to use the Health Forecasting Tool
Getting started

Features

✦ Export to Excel
  ■ How to:
    Click the ‘Export to Excel’ button and a pop-up download menu will appear.

  ■ This feature allows you to:
    ◆ download data to spreadsheet format
    ◆ use a familiar program to create your own graphs and conduct your own analysis
    ◆ focus and compare specific data points or years
    ◆ sort data

✦ Save as JPEG
  ■ How to:
    Click the ‘Save to JPEG’ button to save the graph created in your report.

  ■ Note:
    Data will not be saved. Only the graph will be saved.

✦ Save as PDF
  ■ How to:
    Click the ‘Save as PDF’ button to import the graph(s) and data onto one PDF document.

  ■ The options selected in creating your report are listed on the first page of the PDF.
    See the graphic below.

  ■ You can refer back to the PDF to identify your study, population, topic, scenario(s), categories, and filters.
### Section 2: Learn how to use the Health Forecasting Tool

**Getting started**

#### Features

- **Show Assumptions**
  - Would you like more information about each ‘Scenario’ or intervention?
    - Click the ‘Show Assumptions’ button for an expanded definition of each ‘Scenario’ or intervention. A box called ‘Study Assumptions’ is displayed. See figure below.

- For more information about detailed core assumptions about the study and how they were used in generating forecasts, visit our website ‘Specific Studies’ page, under the ‘Support’ section of the navigation bar.

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![Show Assumptions button](image)

The study assumptions pop-up box provides an explanation of the 'Scenario' available in the 'Study'.

---

![Overview of Health Forecasting Tool features](image)

To understand the assumption(s) made in generating the forecast, if any, click here.

Compile a list of all your selected report parameters by saving your PDF. The document also includes the graph and respective data.

Click here to view data for the report in Microsoft Excel format. The chart in the report is not included.

The JPEG saves only the chart and not the data.
Section 2: Learn how to use the Health Forecasting Tool

Getting started

Components of the Health Forecasting Tool

Each type of reporting has a unique function and corresponding component.

There are 7 basic components of the Health Forecasting Tool. The chart below identifies which components are included in each type of report.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Quick Reports</th>
<th>Basic Reporting</th>
<th>Advanced Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Study</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2) Population</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3) Topics</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4) Scenario or Intervention</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4a) Scenario Comparison</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>5) Chart type</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>6) Category</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>7) Filters</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

- **The Study**
  - covers topics such as obesity, coronary heart disease, and in the case of the Health Forecasting- UniHealth Project, *‘Los Angeles UniHealth Study’*

- **Population**
  - pick a study default population
  - or
  - create a personalized population of your very own community or service planning area

See the ‘Define a custom population’ section on page 18 for more information.
Section 2: Learn how to use the Health Forecasting Tool

Getting started

Components of the Health Forecasting Tool

❖ **Topics**

- Included in the ‘Los Angeles-UniHealth Study’ are:

  - *Morbidity health outcomes*
    
    *For example:* diabetes, stroke, and hypertension

  - *Mortality outcomes*
    
    *For example:* all-cause mortality, coronary heart disease mortality rate, and the number of people who have died from coronary heart disease

  - *Health behaviors*
    
    *For example:* rates for overweight and obesity, smoking prevalence, and levels of physical activity in the population (as measured in metabolic hours per week)

  - *Population figures*
    
    *For example:* population counts for subgroups or the entire population, average Body-Mass-Index number for the entire study population or selected subgroups

❖ **Scenario**

- Interventions are listed under the ‘Scenario’ section. ‘Advanced reporting’ allows for two interventions to be compared.

  *See the ‘Advanced reporting’ section on page 16 for more information on how to do this.*

- Overlay a ‘Scenario’ in your population to examine different states of the world.

  *For example:* ‘What would happen in my study population if ‘Intervention A’ were to be implemented?’

❖ **Chart type**

- Allows the user to select a chart type.

- Types of charts available are:

  - Column
  - Bar
  - Line
  - Pie
  - Marker
Section 2: Learn how to use the Health Forecasting Tool

Getting started

Components of the Health Forecasting Tool

- **Category**
  - Allows the study population to be further segmented as *one group* for analysis by the following categories. The available studies include:
    - Ethnicity
    - Gender
    - Income
    - Educational attainment
    - Age group
  - Category selections are optional. *‘Basic reporting’* allows for one category to be selected at one time while *‘Advanced reporting’* allows for two category selections.

- **Filters**
  - Available for use only in the *‘Advanced reporting’* section of the Health Forecasting Tool.
  - Selecting *‘Filters’* allows the *‘Categories’* listed above to be scrutinized in more detail. Instead of viewing data for one entire *‘Category’* group (as would be the case if *‘Category’* was selected), you can select one or multiple variables *within* a *‘Category’*.
    - For example:
      - In the *‘Advanced reporting’*, *‘Filter’* section you can analyze data for a given topic for:
        - one gender or both genders;
        - one ethnic group or combine two, or three ethnic groups;
        - a specific age group or a range of age groups;
        - one group of individuals with a certain level of education; or
        - only individuals under the 99% Federal Poverty Line or another income level available in the tool.
  - This feature allows a user to focus specifically on one subsegment of a group and is the highest grade of analysis in the tool.

*More information about *‘Filters’* is available in the ‘*Advanced reporting’* instructions on page 16.*
Section 2: Learn how to use the Health Forecasting Tool

**How to create a user profile**

- Are you a new user to the Health Forecasting Tool?
- Would you like to create Basic and Advanced reports, or define your own population to study?

Follow the instructions below to create a user profile. Begin by visiting our website:

www.health-forecasting.org

<table>
<thead>
<tr>
<th>STEP 1-</th>
<th>Access website</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Login](Click on the 'Login' link)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP 2-</th>
<th>Click ‘Create Account’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="Click" alt="Create Account" title="Create Account" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP 3-</th>
<th>Type in your e-mail address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Email](Type in your e-mail address to determine if your information is already available online.)</td>
</tr>
</tbody>
</table>

Depending on whether your e-mail is registered, you will be directed to either the Sign-up page or the forgot my login page

(continued on next page)
Section 2: Learn how to use the Health Forecasting Tool

How to create a user profile

If you are directed to the Sign-up page, then

**STEP 4A-**
Fill in your information

**STEP 5A-**
Click ‘Create Account’

If you have been registered, you will be redirected to the page below.

**STEP 4B-**
Click on the ‘I forgot my login link’

**STEP 5B-**
Reset your password by answering a security question correctly to confirm your identity

An e-mail will be sent to your registered e-mail address.

You are now ready to begin using the Health Forecasting Tool.
Section 2: Learn how to use the Health Forecasting Tool

How to login

**STEP 1-**
Access website

**STEP 2-**
Input your username & password

**STEP 3-**
Select report type:
- Quick reports
- Basic reporting
- Advanced reporting

**STEP 4-**
Choose study parameters:
- Study
- Population
- Topic
- Scenario
- Chart type
- Category
- Filters

Assess the UniHealth Study in the Health Forecasting Tool

www.health-forecasting.org

Click on the 'Login' link

Log In To An Existing Account

User Name: [ ]
Password: [ ]

Remember me next time.

Log In

Welcome to the UCLA Health Forecasting Tool

Quick Reports
View pre-generated reports (no login necessary).

Basic Reports
Basic Reports are quick, click-and-point custom charts for a given population. Graphs drawn from each study focus on one topic, as total medical expenditures, and one category, which include Census year, demographic and health characteristics.

Define Population
Create your own specific community/population of interest to use when running the quick reports and your custom reports (requires login).

Study
Los Angeles - UniHealth Study (June 2012)

Population
Create
Hospital Catchment Area

Topic

Health Behaviors
- Overweight (25.0-29.9)
- Obese (>=30.0)
- PA At Recommended Level
- Never Smokers (%)
Section 2: Learn how to use the Health Forecasting Tool

How to navigate the different types of reports

1) Quick reports

- view pre-defined reports using either the study default population
  or
- use your own custom defined population.

See page 18 for more information on how to create a personalized study population profile.

- no login required unless you want to use your custom population

   Quick Report Section:
   View pre-generated reports of Health Forecasting studies for the default population or your 'Define a Population' profile.
   Study
   Los Angeles - UniHealth Study (June 2012)
   Population SPA 4
   Quick Reports:
   Create a Quick Report
   Step 1) Click the drop down menu to view available studies.
   Step 2) Select your 'Population'.
   Step 3) Select the report title you wish to view.
   For more detailed information about the study, view the Specific Studies page.

2) Basic reporting

- create quick, click-and-point custom charts

- **Components:**
  - one study topic
  - one category
  - one intervention (scenario)

   Percentage Breakdown of Total Obese Adults in SPA 3 by Gender and Ethnicity (2010)
Section 2: Learn how to use the Health Forecasting Tool

How to navigate the different types of reports

3) Advanced reporting

This type of report allows you to:

- **Compare Interventions (Scenarios) using ‘Scenario Comparison’**

  - Are you interested in comparing ‘Intervention A’ versus ‘Intervention B’ for the population in your hospital catchment area?

  *How to:*
  
  ‘Check the ‘Scenario Comparison’ box (as shown in the adjacent picture) and select the interventions you want to compare. Then click ‘Create Report’.*

*What you’ll see:*

Data & graphs for the selected interventions are generated.

---

**Scenario Comparison for the Number of Undiagnosed Diabetic Adults in Los Angeles County for:***

- Baseline or no intervention *(top graph)*
- Comprehensive Hypertension Intervention *(bottom graph)*
3) Advanced reporting

This type of report allows you to:

- **Compare Interventions (Scenarios) using Delta Comparison**
  
  **Are you only interested in a graph that shows the difference between ‘Intervention A’ and ‘Intervention B’?**

  **How to:**
  
  Check the ‘Scenario Comparison’ box. The ‘Delta Comparison’ box then appears below. Select the ‘Delta Comparison’ box, your topic, and interventions of choice, then click ‘Create Report’.

  **What you’ll see:**
  
  One chart and one data set illustrating the difference between the two scenarios

- This is a helpful feature if you would like to show the impact of an intervention. **See the figure below.**
Section 2: Learn how to use the Health Forecasting Tool

How to navigate the different types of reports

3) Advanced reporting

This type of report allows you to:

- **Select Filters**

  Filters are only found in ‘Advanced reporting’ and are optional selections when running reports.

  - **Would you like to focus your analysis on one ethnic group, gender, age group, education or income level?**

  How to:

    - ‘Filters’ are optional. Begin by selecting your study options and scroll down to the ‘Filters’ section. Click on one or multiple options for analysis.

  What you’ll see:

    One graph with corresponding data for your selected filter. *See the example below.*
What is the Health Forecasting Tool’s ‘Define a Population’ feature?

This feature enables a user to create a personalized study population to examine health-related data and trends in their community.

Highlights of this feature:

- **focus** on one particular ethnicity, gender, or age group for detailed information about your service planning area
- **assess** the health status of the entire population in your catchment area
- **estimate** the impact of interventions to effectively reduce the prevalence of chronic disease

How does it work?

Users can create a new study population using data from a variety of frequently used data sources, including the U.S. Census or the American Community Survey among others.

- Demographic characteristics, such as ethnicity, age, or gender can be input as percentages or actual population counts.
- Only the user that created the new study population can view and access this information.

‘Define a Population’ Example:
A nonprofit is in the process of drafting a grant proposal to combat heart disease among Latinos in East Los Angeles.

How can the ‘Define a Population’ feature support their efforts to reduce heart disease?

1) **Identify the scope of heart disease in their neighborhood**
   - In our baseline year, 2005, there were 1,400 cases of heart disease. Four years later, there were nearly 200 additional cases.

2) **Determine what would happen if current heart disease trends continued**
   - If heart disease continues its upward trend, relative to our baseline year (2005), the Health Forecasting Tool estimates:
     - a 90% increase in heart disease cases in 20 years;
     - and within 30 years, in the year 2035, the cases of East L.A. residents afflicted with heart disease will increase substantially by about 164%.
Section 2: Learn how to use the Health Forecasting Tool

Define your custom population

Step-by-step instructions: How to create your custom population

STEP 1- Login to your account.

STEP 2- Identify your community by a geographic boundary: zip code, Census tract, city or designated place.

STEP 3- Find data for your geographic boundary. Sources for data are found in ‘Section 3: Define a Population source list’, page 22.

STEP 4- Select the study for which you want to create a custom population.

STEP 5- Choose the ‘**Add New Population**’ field.

STEP 6- Name your ‘Population’.

STEP 7- Type in the total population count in the ‘**Population Size**’ field.

STEP 8- Select one method to add numbers for your population: either as a percentages or actual population counts (absolute numbers).

  *Don’t include a comma in this field otherwise an error will occur.

STEP 9- In the ‘**Population Elements**’ section, click the categories for which you have data.

  *If you only have data for one or two categories, the remaining categories will default to figures drawn from various sources for Los Angeles County.

STEP 10- Once fields are completed, click on the floppy disk to save your new population.

A video tutorial and detailed information are available online at ‘Define a Population’.
Data Sources:

<table>
<thead>
<tr>
<th>Source Abbreviation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRFSS</td>
<td>California Behavioral Risk Factor Surveillance System</td>
</tr>
<tr>
<td>CHIS</td>
<td>California Health Interview Survey</td>
</tr>
<tr>
<td>LACHS</td>
<td>Los Angeles County Health Survey</td>
</tr>
<tr>
<td>NCHS</td>
<td>National Center for Health Statistics</td>
</tr>
<tr>
<td>NHANES</td>
<td>National Health &amp; Nutrition Examination Survey</td>
</tr>
</tbody>
</table>

Population Figures:

<table>
<thead>
<tr>
<th>Topic Name</th>
<th>Measured as</th>
<th>Defined as</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Population count</td>
<td>Number of people in the study population</td>
<td>Census &amp; California Department of Finance</td>
</tr>
<tr>
<td>Average BMI</td>
<td>Average Body-Mass-Index (BMI) number</td>
<td>Average Body-Mass-Index number of the entire study population</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
</tbody>
</table>

Health Behavior Data:

<table>
<thead>
<tr>
<th>Topic Name</th>
<th>Measured as</th>
<th>Defined as</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight</td>
<td>%</td>
<td>a person who falls between the CDC defined BMI range of 25-29.9</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Obese</td>
<td>%</td>
<td>a person who falls between the CDC defined BMI range of at least 30 and above</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Physical activity @ recommended level</td>
<td>MET hours per week</td>
<td>an individual who engages in at least 16 metabolic equivalent task (MET) hours per week</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Never smokers</td>
<td>%</td>
<td>an individual who has never smoked cigarettes on a regular basis</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Current smokers</td>
<td>%</td>
<td>an individual who is self identified as smoking regularly</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Former smokers</td>
<td>%</td>
<td>an individual who has successfully quit smoking and will not relapse</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
</tbody>
</table>
### Morbidity Outcome Data:

<table>
<thead>
<tr>
<th>Topic Name</th>
<th>measured as</th>
<th>Defined as</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prehypertension</td>
<td>Cases</td>
<td>blood pressure between 120/80 mmHg and 139/89 mmHg (NIH definition)</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Cases</td>
<td>blood pressure level of 140/90 mmHg or higher</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Prevalence</td>
<td>calibrated to LACHS prevalence (among those age 18+)</td>
<td>LACHS</td>
</tr>
<tr>
<td>Pre-diabetes</td>
<td>Cases</td>
<td>blood sugar level higher than normal but not at the diabetic level (impaired glucose tolerance)</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Diagnosed diabetes</td>
<td>Cases</td>
<td>Ever told by a health practitioner that you have diabetes</td>
<td>CHIS; BRFSS; LACHS</td>
</tr>
<tr>
<td>Diagnosed diabetes</td>
<td>Prevalence</td>
<td>calibrated to LACHS prevalence (among those age 18+)</td>
<td>LACHS</td>
</tr>
<tr>
<td>Undiagnosed diabetes</td>
<td>Cases</td>
<td>blood sugar level at the diabetic level but never told by a health practitioner as diabetic</td>
<td>NHANES; LACHS</td>
</tr>
<tr>
<td>Undiagnosed diabetes</td>
<td>Prevalence</td>
<td>inferred from NHANES ratio of undiagnosed diabetes to diagnosed diabetes (among those age 18+)</td>
<td>NHANES; LACHS</td>
</tr>
<tr>
<td>Chronic kidney disease (CKD)</td>
<td>Cases</td>
<td>slow loss of kidney function over time (NIH definition)</td>
<td>Literature</td>
</tr>
<tr>
<td>Chronic kidney disease (CKD)</td>
<td>Prevalence</td>
<td>calculated from the documented ratio of diabetes to CKD prevalence</td>
<td>Literature</td>
</tr>
<tr>
<td>End stage renal disease (ESRD)</td>
<td>Cases</td>
<td>complete or almost complete failure of the kidneys to work</td>
<td>Literature</td>
</tr>
<tr>
<td>End stage renal disease (ESRD)</td>
<td>Prevalence</td>
<td>calculated from the documented ratio of ESRD to CKD prevalence</td>
<td>Literature</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>Incidence</td>
<td>calibrated to LACHS prevalence</td>
<td>Literature; LACHS</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>Incident cases</td>
<td>Ever told by a health practitioner that you have coronary heart disease</td>
<td>Literature; LACHS</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>Prevalence</td>
<td>inferred from prevalence</td>
<td>Literature; LACHS</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>Prevalent cases</td>
<td>defined as the first coronary heart disease event</td>
<td>Literature; LACHS</td>
</tr>
</tbody>
</table>

### Mortality Data:

<table>
<thead>
<tr>
<th>Topic Name</th>
<th>measured as</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deaths</td>
<td>Number</td>
<td>CDC Wonder Mortality Data</td>
</tr>
<tr>
<td>All-cause mortality rate</td>
<td>Rate</td>
<td>CDC Wonder Mortality Data</td>
</tr>
<tr>
<td>Number of coronary heart disease deaths</td>
<td>Number</td>
<td>Los Angeles County Health Department report: <em>Obesity and related mortality in Los Angeles County, 2011</em></td>
</tr>
<tr>
<td>Coronary heart disease mortality rate</td>
<td>Rate</td>
<td>Los Angeles County Health Department report: <em>Obesity and related mortality in Los Angeles County, 2011</em></td>
</tr>
<tr>
<td>Number of stroke deaths</td>
<td>Number</td>
<td>Los Angeles County Health Department report: <em>Obesity and related mortality in Los Angeles County, 2011</em></td>
</tr>
<tr>
<td>Stroke mortality rate</td>
<td>Rate</td>
<td>Los Angeles County Health Department report: <em>Obesity and related mortality in Los Angeles County, 2011</em></td>
</tr>
</tbody>
</table>
There are many credible sources from which to pull data for your custom population. We will list two resources in this toolkit, the first is for the Census FactFinder2 and the second set is a listing of 2010 Census data for places in California on the state government website.

To find data using the Census tool FactFinder2:

**STEP 1** - Identify the table that most closely determines the type of information you are looking for: ethnicity, age, or gender.

**STEP 2** - Visit the Census FactFinder2 website to pull data for your community:
http://factfinder2.census.gov

**STEP 3** - Type in the corresponding table number and your geographic area.

**STEP 4** - Click ‘Go’. A listing of available tables will appear. Click on the table to retrieve your information.

**STEP 5** - Go to the Health Forecasting Tool ‘Define a Population’ section and follow instructions on page 18.

---

**Define a Population: Data Sources (Census 2010)**

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P9</td>
<td>only ethnicity</td>
</tr>
<tr>
<td>P12H</td>
<td>Sex by age (every 5 years) for Hispanic or Latino</td>
</tr>
<tr>
<td>PCT12I</td>
<td>Sex by age (every 5 years) White alone</td>
</tr>
<tr>
<td>PCT12J</td>
<td>Sex by age (every 5 years) Black alone</td>
</tr>
<tr>
<td>PCT12L</td>
<td>Sex by age (every 5 years) Asian alone</td>
</tr>
<tr>
<td>PCT12M</td>
<td>Sex by age (every 5 years) Native Hawaiian and Pacific Islander alone</td>
</tr>
<tr>
<td>PCT12N</td>
<td>Sex by age (every 5 years) Some Other Race Alone</td>
</tr>
<tr>
<td>PCT12O</td>
<td>Sex by age (every 5 years) Two or More Races Alone</td>
</tr>
</tbody>
</table>

---

**American FactFinder2 website:**

Type in Table number, example: P9

Type in your geographic boundary to determine its availability
To find data using the listing on the California Department of Finance website:

**STEP 1-** Access the state website at
http://www.dof.ca.gov/research/demographic/state_census_data_center/census_2010/view.php

**STEP 2-** Determine the geographic boundary you would like to use.

**STEP 3-** Click on the link to download data as a PDF or in Microsoft Excel format

**STEP 4-** Go to the Health Forecasting Tool ‘Define a Population’ section and follow
directions on page 20 of this toolkit.

<table>
<thead>
<tr>
<th>Geographic Boundary</th>
<th>Data type description</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td><a href="http://www.dof.ca.gov/research/demographic/state_census_data_center/census_2010/view.php">http://www.dof.ca.gov/research/demographic/state_census_data_center/census_2010/view.php</a></td>
</tr>
</tbody>
</table>
| Legislative & Congressional | **Data Tables for Current California State Legislative and Congressional Districts**
  Total and 18+ Population by Race (Hispanic exclusive) and Hispanic or Latino and Housing Units: 2010 (.xls, <1 MB) |
| Cities & Census Designated Place (CDP) | **Census Data for State, Counties, All Places (Cities and CDPs), and Census Tracts**
  Total and 18+ Population by Race (Hispanic exclusive) and Hispanic or Latino and Total Housing Units, Occupied, and Vacant Units (.xls, <5 MB) |
| Cities & CDP's | **Data Tables for California, Counties, and All Places (Cities and CDPs)**
  Table 3A — Total Population by Race (Hispanic exclusive) and Hispanic or Latino: 2010 (.xls, <1 MB)
  Table 3B — Population 18+ by Race (Hispanic exclusive) and Hispanic or Latino: 2010 (.xls, <1 MB) |
| Zip Code | **Selected data from the Demographic Profile for ZIP Code Tabulation Areas (ZCTA) in California:**
  Table 3c—Population by Race (Hispanic Origin exclusive) and Hispanic Origin (.xls, <1 MB)
  Table 1—Total population, median age, sex, age, household and family size ( |
| California & Counties | **Summary File 1**
  Detailed Age by Race/Hispanic Origin by Gender (.zip, <5 MB) |
| All California | **Standard Summary File 2 Profile—a formatted report of tables in Summary File2.**
  **Full Standard Summary File 2 Profile for California for Hispanics and Non-Hispanic Major Race Groups:**
  Total Population (.pdf, <1 MB)
  Hispanic or Latino (.pdf, <1 MB)
  Not Hispanic or Latino:
  White Alone (.pdf, <1 MB)
  Black or African American Alone (.pdf, <1 MB)
  American Indian and Alaska Native Alone (.pdf, <1 MB)
  Asian Alone (.pdf, <1 MB)
  Native Hawaiian and Other Pacific Islander Alone (.pdf, <1 MB)
  Some Other Race Alone (.pdf, <1 MB)
  Two or More Races (.pdf, <1 MB) |
Section 3: Methodology

Interventions

Overlay evidence-based interventions on your study population in ‘Basic’ and ‘Advanced reporting’.

Interventions listed on the following pages can be located in the drop-down menu called ‘Scenario’ in ‘Basic’ and ‘Advanced’ reporting.

For more of an explanation of each of the ‘Scenarios’, click the ‘Show assumptions’ button. A list of interventions and an expanded definition of the intervention is displayed.

Summary matrix for overweight and obesity

<table>
<thead>
<tr>
<th>Priority topic</th>
<th>Intervention name</th>
<th>Scenario assumption (description)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth &amp; adult overweight and obesity</td>
<td>1) Baseline or status quo scenario</td>
<td>Assumes that secular trends in Body-Mass-Index (BMI) have leveled off, and that going forward BMI (conditional on demographic and socio-economic factors) will stay constant at 2010 levels</td>
</tr>
<tr>
<td></td>
<td>2) Comprehensive intervention targeting 8 year old children</td>
<td>Assumes that starting in 2013 all 8 year olds are exposed to a comprehensive intervention putting each exposed individual on a lower BMI trajectory for the remainder of their life. Intervention is modeled after the comprehensive intervention ShapeUp Somerville (Massachusetts) where 1st – 3rd graders and their parents were engaged to increase physical activity and improve diet of school-aged children leading to a lowering of the BMI z-score by 0.1 after eight months.</td>
</tr>
<tr>
<td></td>
<td>3) Decreasing Body-Mass-Index to year 2000 levels by the year 2020</td>
<td>Assumes a downward secular trend in BMI, reversing BMI to level from 2000 (conditional on demographic and socio-economic factors) by 2020. Agnostic about how this reversal is accomplished.</td>
</tr>
</tbody>
</table>
Section 3: Methodology

Interventions

In-depth intervention description

**Intervention Name:** *Comprehensive intervention targeting 8 year old children*

**Goal:** prevent weight gain in young children

**Objectives:** to balance the energy equation balance by increasing physical activity options and availability of healthful foods within the before-, during-, after-school, home, and community environments.

**Measured outcomes:** Change in BMI z-score

**Intended audience and/or participants:** Primary audience: diverse urban groups and individuals in the community (parents, teachers, school food service providers, city departments, policy makers, healthcare providers, before-and after-school programs, restaurants, and the media)

**Intervention target audience:** Children grades 1-3 attending public elementary schools

**Setting:**
- Community
- School
- Home

**Length of intervention:** One academic year (8 months)

**Intervention description:** Multifaceted and community-based collaborative intervention aimed at changing the behavior and access of young elementary school-aged children by *providing healthier dietary options and opportunities for physical activity while creating policies to promote sustained change*. The culturally sensitive intervention focused on prevention strategies in early life.


**Intervention components:** Continued on the next page.
In-depth intervention description

**Intervention Name:** Comprehensive intervention targeting 8 year old children

**Intervention components:**

<table>
<thead>
<tr>
<th>Intervention Components for:</th>
<th>Elements</th>
<th>Mode of Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) Students in grades 1-3 in public school</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1A) Before-School</strong></td>
<td>• Delivered by registered nurses and</td>
<td>• Breakfast program</td>
</tr>
<tr>
<td></td>
<td>• Breakfast program</td>
<td>• Walk-to-school program</td>
</tr>
<tr>
<td></td>
<td><strong>1B) During-school</strong></td>
<td>• Improved nutrition and healthful meal and snack options available</td>
</tr>
<tr>
<td></td>
<td>• In class curriculum</td>
<td>• Enhanced recess</td>
</tr>
<tr>
<td><strong>1C) After-school</strong></td>
<td>• After-school curriculum</td>
<td>• Walk from school campaign</td>
</tr>
<tr>
<td><strong>2) Community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2A) School (Teachers &amp; Staff)</strong></td>
<td>• Improved equipment in health office</td>
<td>• Staff Professional Development</td>
</tr>
<tr>
<td></td>
<td>• Staff Professional Development</td>
<td>• School ‘wellness’ policy development</td>
</tr>
<tr>
<td><strong>2B) Home</strong></td>
<td>• Newsletters for parents and</td>
<td>• Monthly media piece to subscribers</td>
</tr>
<tr>
<td></td>
<td>• Monthly media piece to subscribers</td>
<td>• Family events</td>
</tr>
<tr>
<td></td>
<td>• Parent nutrition forums</td>
<td>• Parent nutrition forums</td>
</tr>
<tr>
<td></td>
<td>• Annual ‘Child Health Report Card’</td>
<td></td>
</tr>
<tr>
<td><strong>2C) Community</strong></td>
<td>• Walking pedestrian trainings</td>
<td>• City employee wellness campaign</td>
</tr>
<tr>
<td></td>
<td>• City employee wellness campaign</td>
<td>• Local physician and clinic staff training</td>
</tr>
<tr>
<td></td>
<td>• City ordinances on walkability/bikeability</td>
<td>• City ordinances on walkability/bikeability</td>
</tr>
<tr>
<td></td>
<td>• Monthly article in local paper</td>
<td>• Resource guides (Physical activity and nutrition)</td>
</tr>
</tbody>
</table>
Case Analysis: Community health needs assessment

Preparation for case analysis:

**STEP 1-** Visit our website: [www.health-forecasting.org](http://www.health-forecasting.org) to create your user profile and login.

**STEP 2-** Place your cursor over the ‘Get Started’ tab on the main page navigation bar then scroll down and click the ‘Basic reporting’ box. Familiarize yourself with the ‘Basic reporting’ section.

**STEP 3-** Determine the hospital catchment area you will use in this case analysis. If you submitted your catchment area boundaries to Health Forecasting staff, look for the catchment area that was created for you in the ‘Population’ drop-down menu.

**STEP 4-** Once you have done this, please wait as we will review the case analysis.

Scenario:

Your hospital community benefit department just ended the first of many meetings to discuss the upcoming community health needs assessment. A plan of action has been outlined to determine priority issues and operational matters to carry out the needs assessment.

Identification of priority issues:

Interviews conducted with various stakeholders and hospital program managers have revealed concerns about the growing rates of overweight and obesity in your catchment area. Being overweight or obese has been linked to an increased risk of many chronic conditions, including heart disease, diabetes, high blood pressure, and stroke.

*Now that your department has prioritized overweight and obesity as a priority issue, typically what are your next steps?*
How to use the Health Forecasting Tool for short- and long-term strategic community benefit planning?

Because funding and staff resources are limited, it is important to determine which segment of your population could be most positively impacted by an intervention. How would you typically go about identifying a target group?

Using the Health Forecasting Tool for this case analysis will illustrate the various functions and benefits of the using the Health Forecasting Tool. It allows you to:

❖ **Assess general overweight and obesity in your catchment area**

**ACTION ITEM:** Create a ‘Basic report’ for the following:

1) total population count or ‘**Topic:** Population’ and ‘**Category:** None’

2) trends in ethnicity or ‘**Topic:** Population’ and ‘**Category:** Ethnicity’

3) overweight individuals or ‘**Topic:** Overweight’ and ‘**Category:** None’

4) obese individuals or ‘**Topic:** Obese’ and ‘**Category:** None’

**What does the Health Forecasting Tool results report tell us?**

**Action Item 2 Question:**

Which ethnic group comprises the largest segment of your population in 2010? What noticeable trends are projected among the different ethnic groups?

**Action Item 3 Question:**

Are there more obese or overweight individuals in your population in 2010? How do levels appear to trend in 2030? This is important to determine goals for your obesity program: prevention of obesity or maintenance of weight status

❖ **Differentiate between overweight and obese among subgroups**

**ACTION ITEM:** Determine if overweight and obesity are problematic among a specific level of educational groups. This will help narrow your intervention target group and the type of intervention designed.

1) First try creating a report for overweight individuals by educational attainment

2) Next create a report for obese individuals by educational attainment
ACTION ITEM: Determine if there are any differences among obesity rates between ethnic groups. This can help create a culturally sensitive and effective intervention.

1) Create a report for the ‘Topic: Obesity’ by ‘Category: Ethnicity’

2) Export the results to Microsoft Excel

What does the Health Forecasting Tool results report tell us?

Do you see any differences between the two groups?

Which is greater?

What does the Health Forecasting Tool results report tell us?

Which ethnic group has the highest proportion of obesity in your population in the year 2010?

Which ethnic group has the highest proportion of obesity in 2030? Did the rates change in ways you did not expect? Or did you anticipate this trend?
ACTION ITEM: Now that we know the ethnic group which makes up the majority of your population, let’s see how obesity affects them now and into the future.

1) Go to the ‘Advanced reporting’ section. Select:

1a) Population: Your sample catchment area
1b) Topic: Obesity
1c) Scenario: Baseline
1d) Category 1: Census
1e) Category 2: None
1f) Filter 1: No high school diploma
1g) Filter 2: Hispanic or your largest ethnic group
1h) Filter 3: Income level 0-99% Federal Poverty Level
1i) Click ‘Create report’

What does the Health Forecasting Tool results report tell us?

- Let’s overlay different scenarios to see if there is an impact. Try different interventions. How?
  - Follow all the steps, while only changing step 1c) ‘Scenario’.
  - Which intervention seems to be the most effective?
Case Analysis: Community health needs assessment

HOW YOU CAN USE THE HEALTH FORECASTING TOOL IN COMMUNITY NEEDS ASSESSMENT AND BENEFIT PLANNING?

The Health Forecasting tool enables your staff to:

- **Explore** the current rates of overweight and obesity that reflect the population in your hospital service area
- **Assess** in more detail the effect of overweight and obesity by different subgroups
- **Create** a roadmap with data results and determine which interventions would be feasible for your community
- **Examine** future trends in overweight and obesity
- **Include** customized data and graphs in reports
- **Evaluate** potential effectiveness of interventions
- **Tailor** interventions to your community profile

*Data for: Percentage of overweight adults in Los Angeles County if BMI decreased to year 2000 levels by 2020.*

![Graph showing percentage of overweight adults in Los Angeles County](image)
Instructional guide

How to use the Health Forecasting Tool for short- and long-term strategic community benefit planning?

Assess general overweight and obesity in your catchment area.

**ACTION ITEM:** Create a ‘Basic report’ for the following:

1) **total population count**
   1a) *Population:* Your sample catchment area
   1b) *Topic:* Population
   1c) *Scenario:* Baseline
   1d) *Category:* None
   1e) Click ‘Create Report’

2) **trends in ethnicity**
   2a) *Population:* Your sample catchment area
   2b) *Topic:* Population
   2c) *Scenario:* Baseline
   2d) *Category:* Ethnicity
   2e) Click ‘Create Report’

3) **overweight individuals**
   3a) *Population:* Your sample catchment area
   3b) *Topic:* Overweight
   3c) *Scenario:* Baseline
   3d) *Category:* None
   3e) Click ‘Create Report’

4) **obese individuals**
   4a) *Population:* Your sample catchment area
   4b) *Topic:* Obesity
   4c) *Scenario:* Baseline
   4d) *Category:* None
   4e) Click ‘Create Report’
Instructional guide

How to use the Health Forecasting Tool for short- and long-term strategic community benefit planning?

Differentiate between overweight and obese among subgroups

**ACTION ITEM:** Create a ‘Basic report’ for the following categories:

1) First create a report for overweight individuals by educational attainment

1a) **Population:** Your sample catchment area
1b) **Topic:** Overweight
1c) **Scenario:** Baseline
1d) **Category:** Educational attainment
1e) Click ‘Create Report’

**ACTION ITEM:** Educational attainment and obesity

2) Next create a report for obese individuals by educational attainment

2a) **Population:** Your sample catchment area
2b) **Topic:** Obesity
2c) **Scenario:** Baseline
2d) **Category:** Educational attainment
2e) Click ‘Create Report’

**ACTION ITEM:** Ethnicity and obesity

3a) Create a report for the ‘Topic: Obesity’ by ‘Category: Ethnicity’

3a) **Population:** Your sample catchment area
3b) **Topic:** Obesity
3c) **Scenario:** Baseline
3d) **Category:** Ethnicity
3e) Click ‘Create Report’

3b) Export the results to Microsoft Excel

3f) Click the ‘Export to Excel’ button
3g) A download pop-up should appear
Overlay best practice interventions on your population to reduce rates of obesity

ACTION ITEM:
1) Now that we know the ethnic group which makes up a majority of your overweight or obese population, let’s see how this health outcome affects them now and into the future by overlaying different ‘Scenarios’ or ‘what would happen if Intervention A was implemented?’

1a) Population: Your sample catchment area
1b) Topic: Obesity
1c) Scenario: Baseline
1d) Category 1: Census
1e) Category 2: None
1f) Filter 1: No high school diploma
1g) Filter 2: Hispanic or your largest ethnic group
1h) Filter 3: Income level 0-99% Federal Poverty Level
1i) Click ‘Create Report’

- Try different interventions. How?
  - Follow all the steps, while only changing step 1c) ‘Scenario’

- Which intervention seems to be the most effective?
How can the Health Forecasting Tool inform your short- and long-term community benefit planning?

Health Forecasting Tool data can:

- **supplement** the data your hospital currently uses in the needs assessment with more detail.

- **demonstrate** how your hospital prioritizes public health needs in the community benefit plan.

- **show** how your community service area will change demographically and how this will affect your community benefit planning for the following:
  - *population profile forecasts by*:
    - total population growth
    - race and ethnicity trends
    - shifts in age group
  - *community health profile for various outcomes*:
    - overweight & obesity among adults and children
    - cigarette smoking
    - hypertension
    - physical activity
    - mortality outcomes for heart disease, stroke or all-cause deaths

- **compare interventions** for your particular community and determine how your community service planning area can be affected.

- **facilitate compliance** associated with the higher level of accountability and increased scrutiny by recent federal government mandates and Internal Revenue Service non-profit tax requirements (include charts and data in Form 990)

- **rank health outcomes** in your catchment area and see how they compare to Los Angeles County and Healthy People 2020 Guidelines.
This sample report is created for:

Hospital:  
South Los Angeles Community Hospital  

Catchment area served:  
Service Planning Area 6

Section 4: Seminar materials  
Sample Report

This sample report includes:

1) data collection methods secondary data description of Health Forecasting  
2) population profile forecasts  
3) community health profile and forecasts

1) Data Collection Methods:  
Secondary Data Description of Health Forecasting can be included in documents which cite Health Forecasting.

“The Health Forecasting Tool is a web-based interactive tool that produces forecasts of population health. Forecasts are generated with data from various existing data sources and take into account trends in numerous health determinants such as demographics, health behaviors, health status, risk factor/disease modules and intermediate and distal health outcomes. Health forecasting, based at the UCLA Fielding School of Public Health, operates the continuous-time microsimulation statistical computer model which produces the forecasts accessed online in the Health Forecasting Tool. For more information, please visit: www.health-forecasting.org”
2) Population Profile Forecasts:

Many hospital needs assessments include past and present day data only. Supplement your needs assessment with a thorough understanding of your community with detailed forecasts identifying how your population will change.

- Show growth estimates for the entire population in your catchment area. Is it growing or decreasing as you expected? Is your catchment area growing at a faster rate than Los Angeles County?

- Export Health Forecasting Tool data into Microsoft Excel and create graphs.

### Projected Growth in Ethnicity: SPA 6

<table>
<thead>
<tr>
<th></th>
<th>Population Count</th>
<th>Population Count</th>
<th>Percent Change (%)</th>
<th>Population Count</th>
<th>Population Count</th>
<th>Percent Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2010</td>
<td>2015</td>
<td>2020</td>
<td>2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White (Non-Hispanic)</td>
<td>26,489</td>
<td>23,771</td>
<td>-10.26</td>
<td>20,697</td>
<td>17,503</td>
<td>-15.43</td>
</tr>
<tr>
<td>African-American (Non-Hispanic)</td>
<td>272,867</td>
<td>260,294</td>
<td>-4.54</td>
<td>249,453</td>
<td>225,214</td>
<td>-8.11</td>
</tr>
<tr>
<td>Hispanic</td>
<td>850,577</td>
<td>664,122</td>
<td>2.08</td>
<td>882,937</td>
<td>704,899</td>
<td>3.22</td>
</tr>
<tr>
<td>Asian &amp; Pacific Islander</td>
<td>19,599</td>
<td>20,493</td>
<td>4.59</td>
<td>21,402</td>
<td>24,874</td>
<td>16.22</td>
</tr>
<tr>
<td>Other</td>
<td>20,824</td>
<td>21,382</td>
<td>2.58</td>
<td>21,955</td>
<td>21,889</td>
<td>-0.48</td>
</tr>
</tbody>
</table>

### Total Population Count-SPA 6

#### Year
- 2010: 9,000,000
- 2015: 9,500,000
- 2020: 10,000,000
- 2025: 10,500,000
- 2030: 11,000,000

### Total Population Count-Los Angeles County

#### Year
- 2010: 9,000,000
- 2015: 9,500,000
- 2020: 10,000,000
- 2025: 10,500,000
- 2030: 11,000,000
3) Community Health Profile and Forecasts:

The dynamic Health Forecasting Tool process (collection of data from various sources and combining demographic data, risk factors, and population trends) allow users to target for fine granular analysis. In this example we look at rates of overweight and obesity in SPA 6 and Los Angeles County. At first glance, the total population figures don’t seem alarming. However, when we look at data from the tool we see there are significant distinctions between different groups. This ability to look at different groups can help focus resources to effectively address public health issues in your catchment area.

### SPA 6-Adults: OVERWEIGHT & OBESE

<table>
<thead>
<tr>
<th>Topic</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0.697</td>
<td>0.697</td>
<td>0.701</td>
<td>0.698</td>
</tr>
<tr>
<td>No High School</td>
<td>0.711</td>
<td>0.712</td>
<td>0.715</td>
<td>0.715</td>
</tr>
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### LAC-Adults: OVERWEIGHT & OBESE

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Section 5: About Health Forecasting, UCLA

The Health Forecasting team

Personnel

Dr. Jonathan Fielding, Principal Investigator
Jonathan Fielding is a Professor of Health Services and Pediatrics and Co-Director of the UCLA Center for Healthier Children, Families and Communities. He is the Director of Public Health for Los Angeles County where he is responsible for the full range of public health activities for ten million county residents. Dr. Fielding received his M.D., M.A. (History of Science) and M.P.H. from Harvard University and his M.B.A. from the Wharton School of Business Administration at the University of Pennsylvania.

Dr. Jeroen van Meijgaard, Project Manager
Jeroen van Meijgaard has directed the feasibility, prototype development, and user interface development from the early stages of the Health Forecasting project. He led and conducted research and analysis of the causal linkages between the social, economic, environmental, and behavioral determinants of health across population groups. Dr. van Meijgaard led the modeling efforts to build a framework that provides sufficient flexibility to include a large number of factors and outcomes. He directs model enhancements and dissemination efforts and is responsible for the overall project management. He is proficient in econometrics and statistics including limited dependent variable models survival analysis, multivariate analysis, microsimulation and other statistical tools. Dr. van Meijgaard received his Ph.D. in Health Services Research from UCLA.

Dr. Lu Shi, Research Scientist
Lu Shi is developing the microsimulation model and designing the dissemination strategy. His role includes reviewing the literature for available estimates and distribution functions, estimating the parameters unavailable in previous studies, and improving the model applicability in various areas of health research. Dr. Shi’s research focuses on prevention and early detection of chronic diseases. His other research interests include comparing different approaches to health care reform and improving health communication among disadvantaged populations. Dr. Shi received his Ph.D. in Public Policy Analysis from the F.S. Pardee RAND Graduate School, where he worked on several projects with the RAND Corporation’s Health Division.

Peggy J. Vadillo MPP, Research Associate
Peggy Vadillo is working with UniHealth Foundation and partner hospitals to design and incorporate hospital catchment data and identify evidence-based interventions for use in the Health Forecasting Tool. As the communications specialist, she develops and implements dissemination strategies to provide salient, evidence-based research to drive informed public health policy decisions. Peggy completed her bachelor’s degree in political science and advertising from the University of Southern California (USC). She received her master’s degree in Public Policy from the USC Price School of Public Policy, where she specialized in strategic communication of policy and program evaluation.
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The team at Health Forecasting, UCLA would like to thank UniHealth Foundation for their support helping to expand the Health Forecasting Tool.

UniHealth Foundation is an independent private healthcare foundation committed to becoming a pacesetter in healthcare philanthropy.

UniHealth Foundation supports and facilitates the activities that significantly improve the health and well being of the individuals and communities they serve.