

# Influences on Health: Broadening the Focus

Health is shaped by many influences, including age, sex, genetic make-up, medical care, individual behaviors and other factors not shown in this diagram. Behaviors, as well as receipt of medical care, are shaped by living and working conditions, which in turn are shaped by economic and social opportunities and resources.

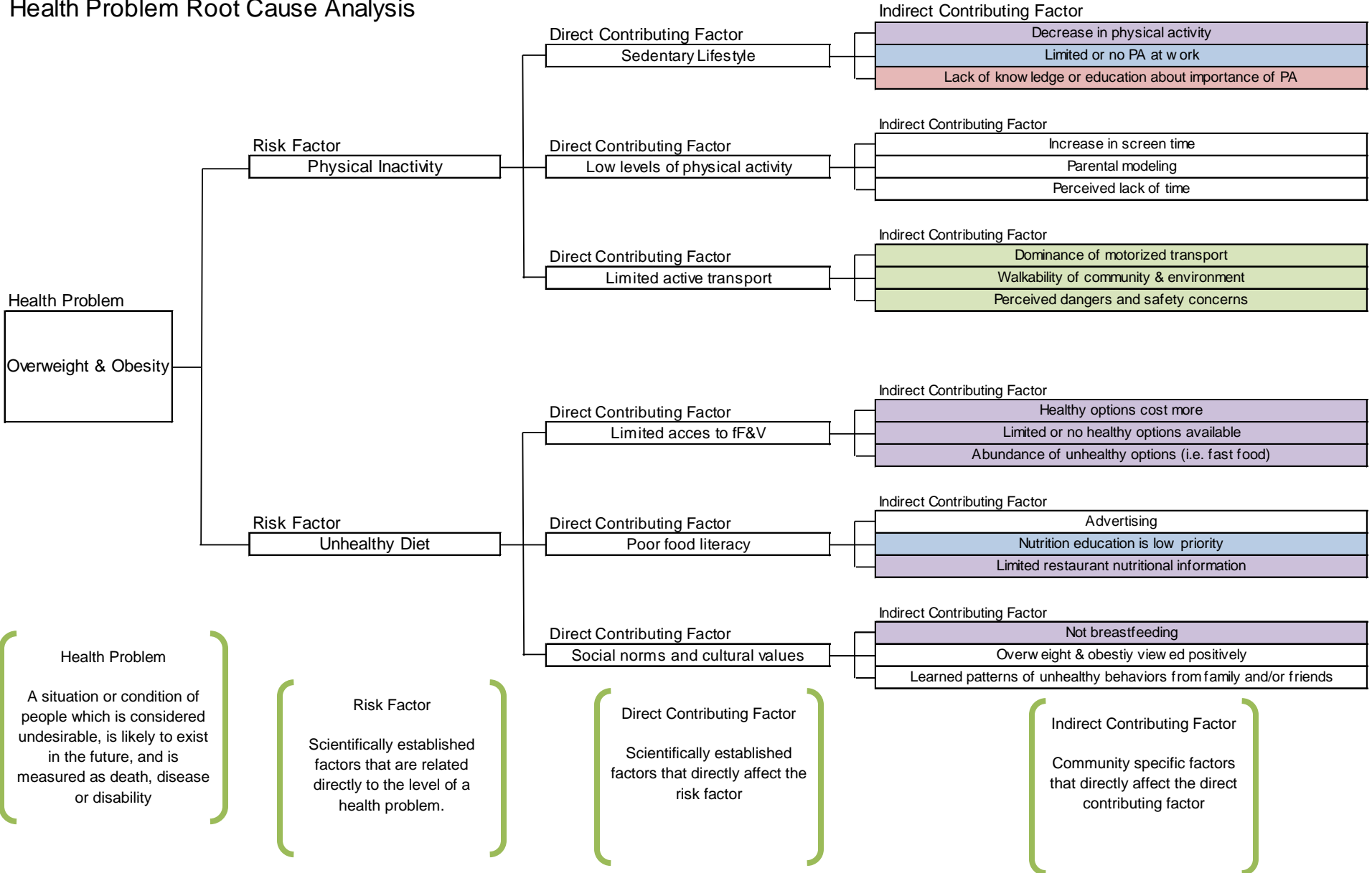


Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.

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# Health Problem Root Cause Analysis



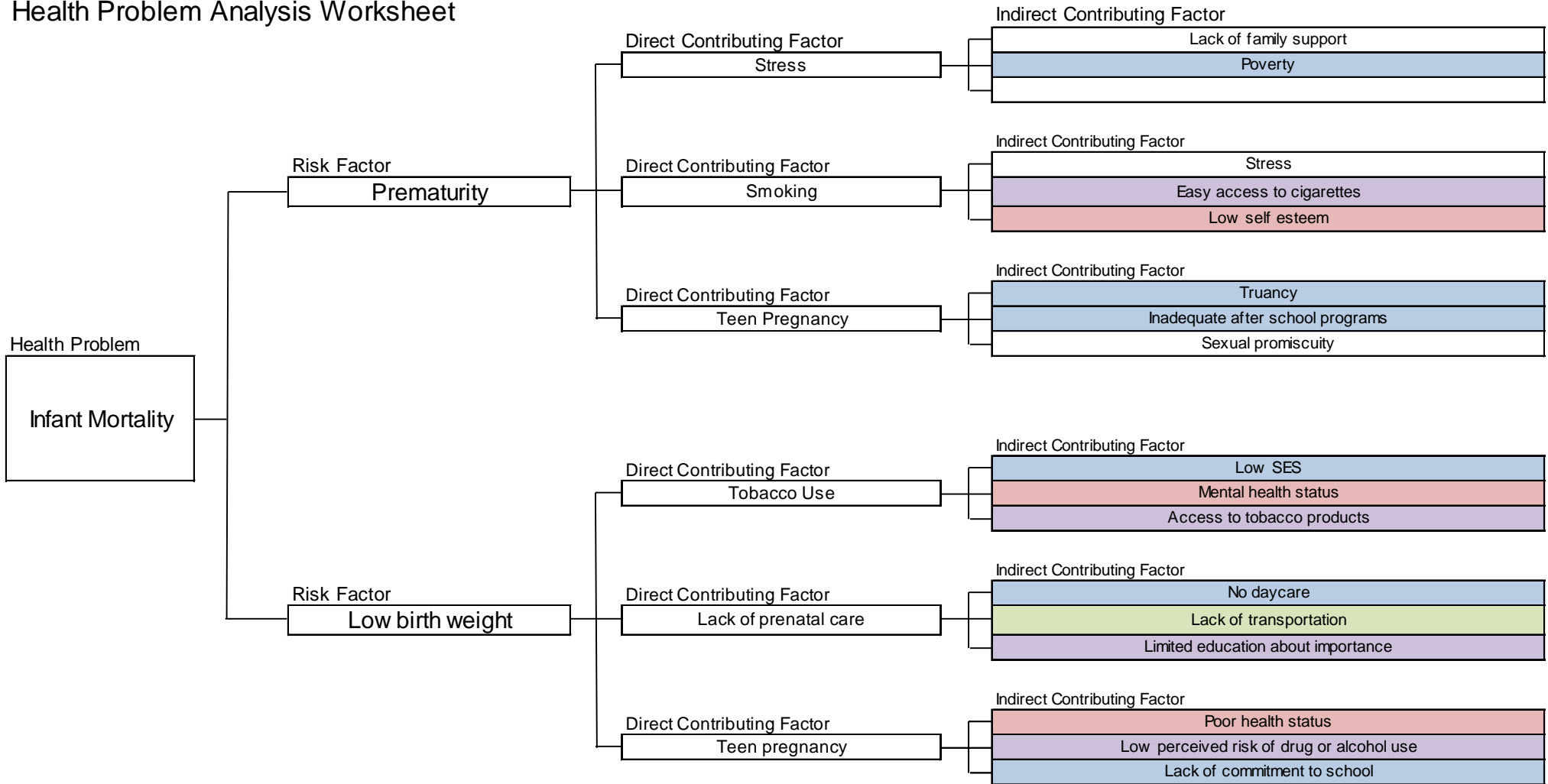
**Health Problem**  
A situation or condition of people which is considered undesirable, is likely to exist in the future, and is measured as death, disease or disability

**Risk Factor**  
Scientifically established factors that are related directly to the level of a health problem.

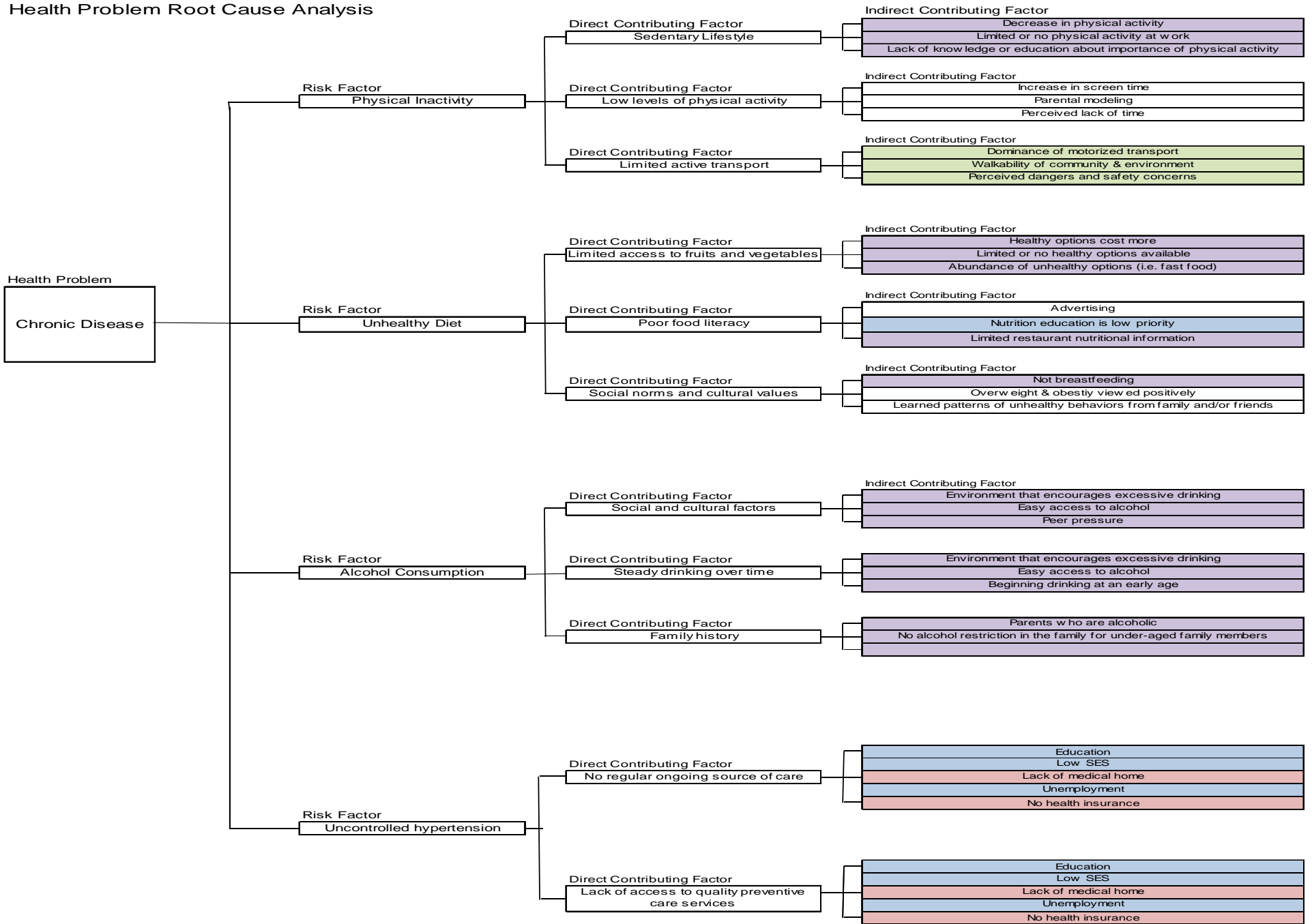
**Direct Contributing Factor**  
Scientifically established factors that directly affect the risk factor

**Indirect Contributing Factor**  
Community specific factors that directly affect the direct contributing factor

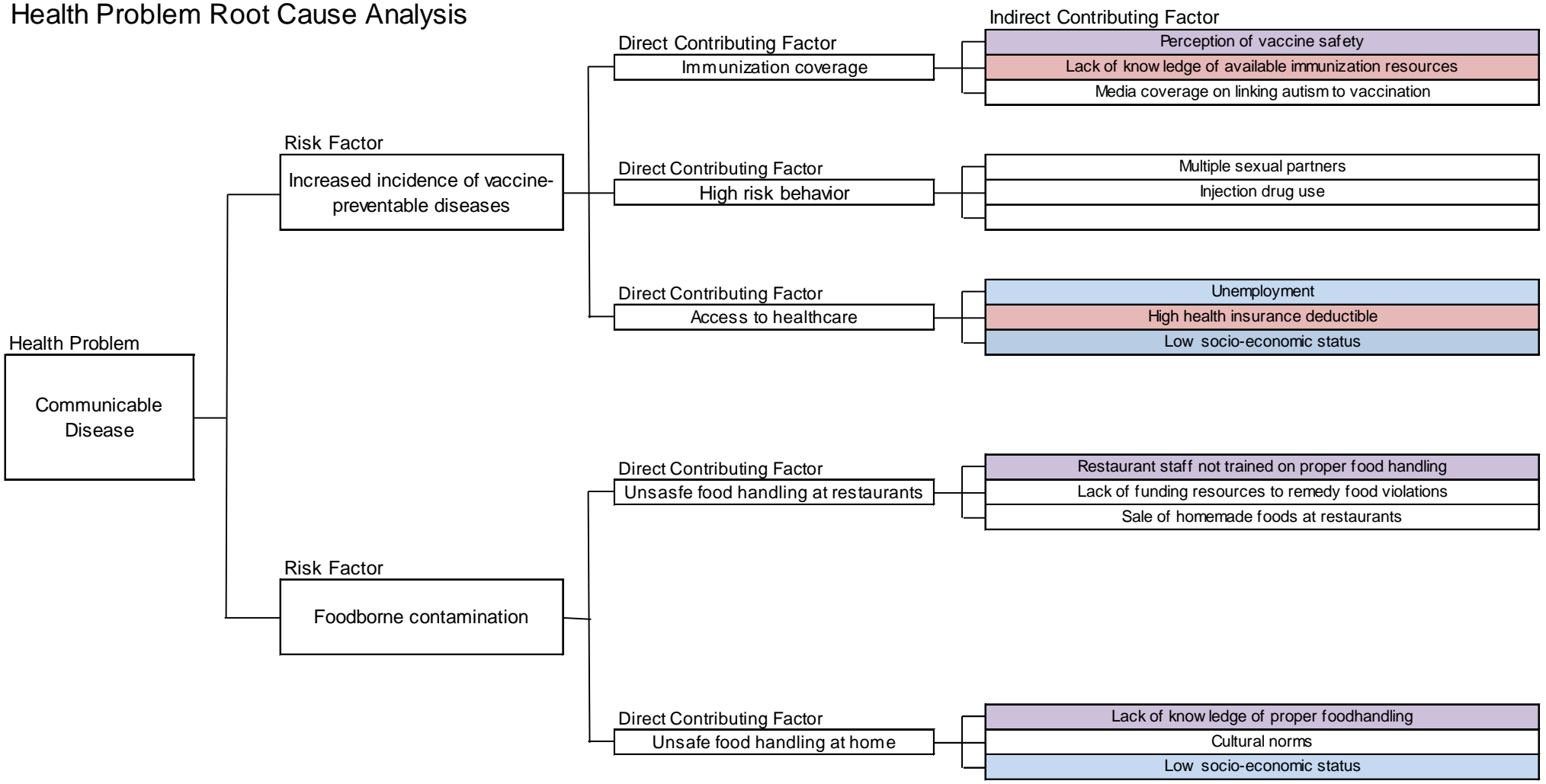
# Health Problem Analysis Worksheet



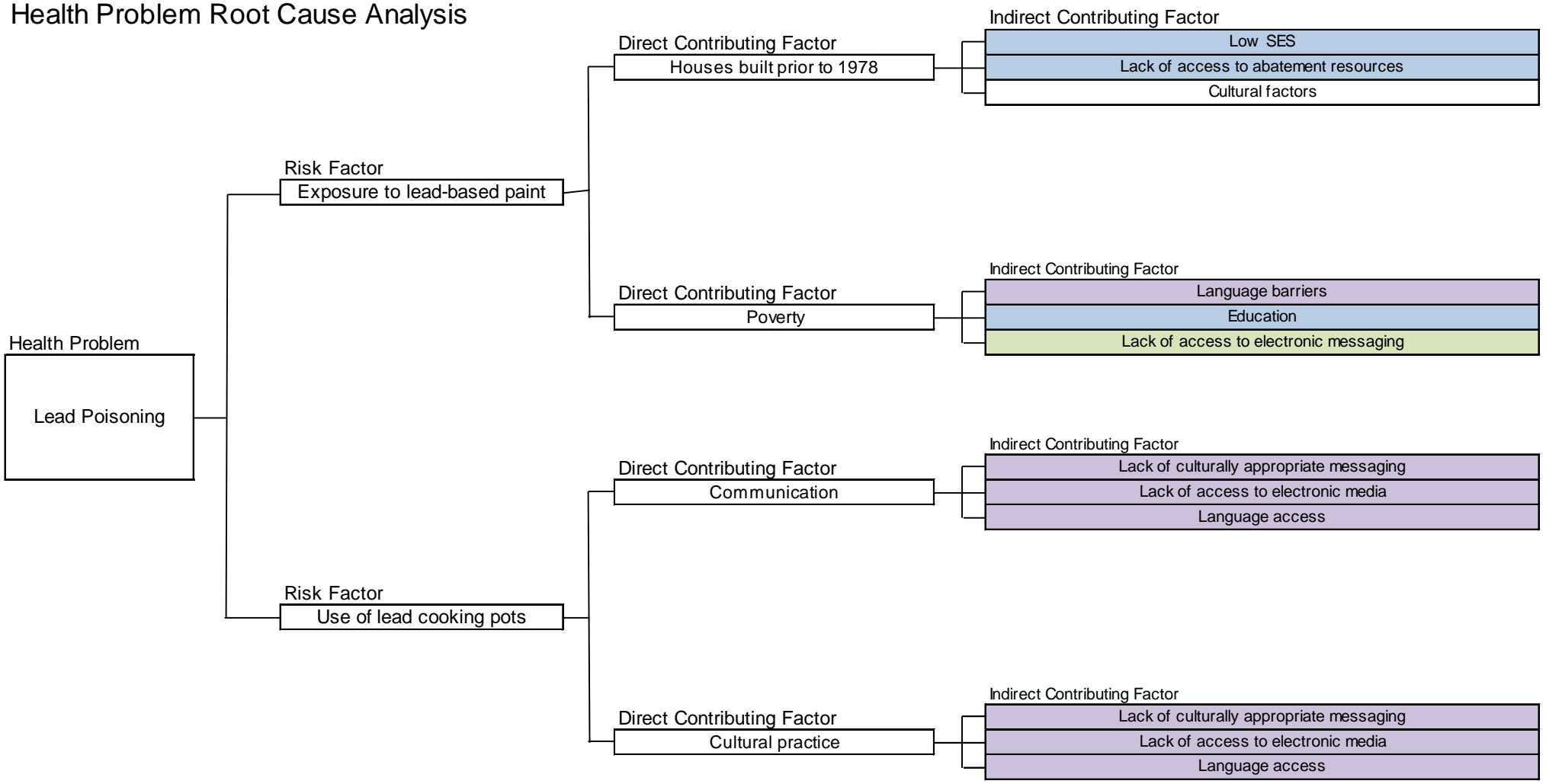
# Health Problem Root Cause Analysis



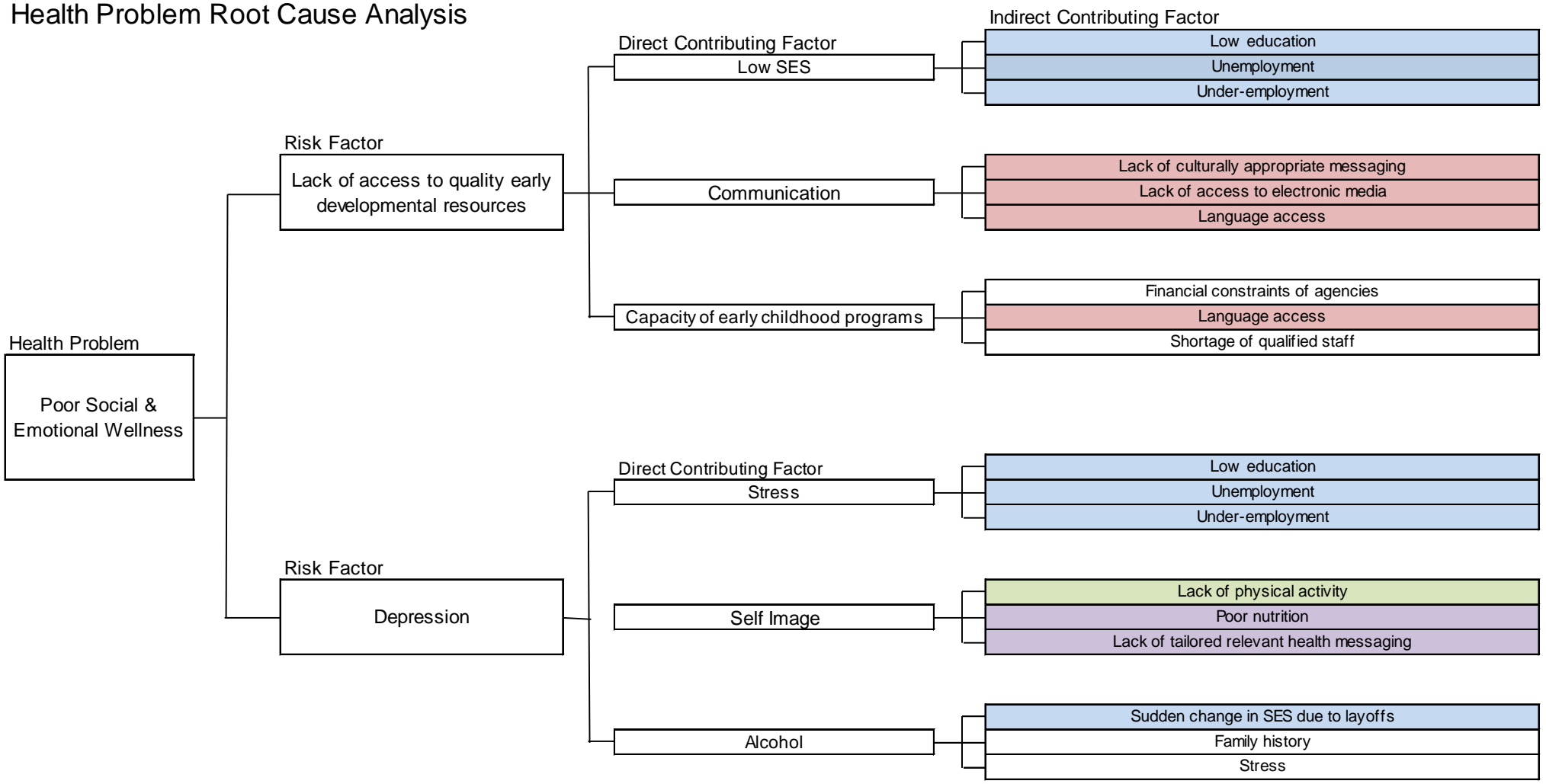
# Health Problem Root Cause Analysis



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# Health Problem Root Cause Analysis



Threats to Community Health & Well-Being	Priority 1 – Support Health Behaviors that Promote Well-Being and Prevent Disease	Priority 2 – Increase Access to High Quality, Holistic Preventive and Treatment Services Across the Health Care System	Priority 3 – Support & Create Health Promoting Neighborhoods, Towns & Cities	Priority 4 – Promote Social, Economic and Educational environments that optimize health
Obesity	X	X	X	X
Chronic Diseases	X	X	X	X
Infant Mortality	X	X	X	X
Childhood Lead Poisoning	X	X	X	X
Communicable Disease	X	X	X	X
Poor Social & Emotional Wellness	X	X	X	X

	Priority 1 – Support Health Behaviors that Promote Well-Being and Prevent Disease				Priority 2 – Increase Access to High Quality, Holistic Preventive and Treatment Services Across the Health Care System				
	Reduce tobacco use and exposure to environmental tobacco smoke.	Increase access to, and consumption, of fresh fruits and vegetables.	Coordinate the effective communication of tailored, accurate and actionable health information to Kane residents across the lifespan.	Create environments that prevent excessive consumption of alcohol.	Increase the proportion of residents of all ages that have regular, ongoing sources of medical and dental care.	Increase the proportion of residents of all ages who receive appropriate, evidence-based clinical preventive services.	Focus culturally appropriate outreach and engagement efforts to eliminate racial disparities in health outcomes, especially in infant mortality.	Enhance systems to support the prevention, early identification and treatment of communicable diseases in the community.	Enhance systems to support the prevention, early identification and evidence-based treatment of mental health conditions.
Obesity		X	X	X	X	X	X		
Chronic Disease	X	X	X	X	X	X	X		X
Infant Mortality	X	X	X	X	X	X	X		X
Childhood Lead Poisoning			X		X	X	X		
Communicable Disease			X	X	X	X	X	X	
Poor Social & Emotional Wellness	X		X	X		X	X		X

	Priority 3 – Support & Create Health Promoting Neighborhoods, Towns & Cities				Priority 4 – Promote Social, Economic and Educational environments that optimize health		
	Increase the availability and variety of high quality, safe and affordable housing and compact, mixed use developments.	Institute “complete streets” types of policies to ensure that roadways are designed and operated with all users in mind - including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities.	Assure access to safe playgrounds, parks, trails and open space.	Assure access to safe food and clean and safe water and air.	Increase the proportion of children who have high-quality early developmental support, especially in child care and education.	Increase the proportion of Kane young people that complete high school education.	Increase the job skills and readiness of Kane County residents that are unemployed.
Obesity	X	X	X		X	X	X
Chronic Disease	X	X	X	X		X	X
Infant Mortality		X			X	X	X
Childhood Lead Poisoning	X				X	X	X
Communicable Disease				X		X	X
Poor Social & Emotional Wellness	X	X	X		X	X	X

	Strategy	Measure	Data Source	Evidence
Priority 1 – Support Health Behaviors that Promote Well-Being and Prevent Disease	Reduce tobacco use and exposure to environmental tobacco smoke.	<p>Measure: Percentage of Kane County adults (over age 18) who report being current smokers. Current smoking was defined as having <i>smoked at least 100 cigarettes in a lifetime and still smoking some days or every day.</i></p> <p>2011 Baseline: 12% of Kane County adults report smoking cigarettes currently</p> <p>2016 Goal: Decrease percent of adults who currently smoke to 9%</p>	Kane County Community Health Survey (CHS).	<p>The percentage of the adult population who are current smokers represents the extent of health risk in a community related to tobacco use. Measuring the prevalence of tobacco use in the population can alert communities to potential adverse health outcomes in the future and can be valuable for assessing the need for cessation programs or the effectiveness of existing programs.</p> <p><a href="http://www.countyhealthrankings.org/health-factors/tobacco-use">http://www.countyhealthrankings.org/health-factors/tobacco-use</a></p>
	Increase access to, and consumption, of fresh fruits and vegetables.	<p>Measure: Percentage of Kane County adults who report eating at least five servings of fruits and vegetables per day.</p> <p>2011 Baseline: 14.4% of adults 25.5% of children</p> <p>2016 Goal:</p> <ul style="list-style-type: none"> <li>• 30% for adults (100% improvement)</li> <li>• 40% for children (60% improvement)</li> </ul>	Kane County Community Health Survey or Illinois BRFSS	<p>Access to and availability of healthier foods can help people follow healthful diets. For example, better access to retail venues that sell healthier options may have a positive impact on a person’s diet; these venues may be less available in low-income or rural neighborhoods.</p> <p>HP2020: <a href="http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=29#nine">http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=29#nine</a></p>
	Coordinate the effective communication of tailored, accurate and actionable health information to Kane residents across the lifespan.	<p>Measure: The percent of the adult population that is satisfied with health communication from the KCHD.</p> <p>2011 Baseline: 89% satisfied (2009 H1N1 campaign)</p> <p>2016 Goal: 95% satisfied</p>	Kane County H1N1 Communications Survey	<p>Effective use of communication and technology by health care and public health professionals can bring about an age of patient- and public-centered health information and services. By strategically combining health IT tools and effective health communication processes, there is the potential to:</p> <ul style="list-style-type: none"> <li>• Improve health care quality and safety.</li> <li>• Increase the efficiency of</li> </ul>

				<p>health care and public health service delivery.</p> <ul style="list-style-type: none"> <li>• Improve the public health information infrastructure.</li> <li>• Support care in the community and at home.</li> <li>• Facilitate clinical and consumer decision-making.</li> <li>• Build health skills and knowledge.</li> </ul> <p>HP2020: <a href="http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=18">http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=18</a></p>
	Create environments that prevent excessive consumption of alcohol.	<p>Measure: The percent of the adult population that reports consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days.</p> <p>2011 Baseline: 27.6% of adults</p> <p>2016 Goal: 22% of adults (20% improvement)</p>	Kane County CHS or Illinois BRFSS	<p>Excessive drinking is a risk factor for a number of adverse health outcomes such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes.</p> <p>County Health Rankings: Centers for Disease Control and Prevention. Sociodemographic differences in binge drinking among adults-14 states, 2004. MMWR Morb Mortal Wkly Rep. 2009;58:301-304.</p>
<b>Priority 2 – Increase</b>	Increase the proportion of residents of all ages that have	Measure: The percent of adult population that reports having a personal doctor or health care	Kane County CHS or Illinois BRFSS	Improving health care services depends in part on ensuring that

<p><b>Access to High Quality, Holistic Preventive and Treatment Services Across the Health Care System</b></p>	<p>regular, ongoing sources of medical and dental care.</p>	<p>provider.</p> <p>2011 Baseline: 83.6% of adults</p> <p>2016 Goal: 92% of adults (20% improvement)</p>		<p>people have a usual and ongoing source of care. People with a usual source of care have better health outcomes and fewer disparities and costs.<sup>7, 8, 9</sup></p> <p>HP2020: <a href="http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=1">http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=1</a></p>
	<p>Increase the proportion of residents of all ages who receive appropriate, evidence-based clinical preventive services.</p>	<p>Measures:</p> <ul style="list-style-type: none"> <li>• Hospitalization rate for diabetes per 100,000 residents</li> <li>• The percent of two-year olds who receive age-appropriate immunizations.</li> </ul> <p>2011 Baseline:</p> <ul style="list-style-type: none"> <li>• 138 hospitalizations for diabetes per 100,000 residents (2009)</li> <li>• 56% of two-year olds received age-appropriate immunizations (2010).</li> </ul> <p>2016 Goal:</p> <ul style="list-style-type: none"> <li>• 100 hospitalizations for diabetes per 100,000 residents (2006 CHAP)</li> <li>• 90% of two-year olds receive age-appropriate immunizations (2006 CHAP)</li> </ul>	<p>Illinois Department of Public Health</p>	<p>Hospitalization for diagnoses amenable to outpatient services suggests that the quality of care provided in the outpatient setting was less than ideal. The measure may also represent the population's tendency to overuse the hospital as a main source of care.</p> <p>CHR: <a href="http://www.countyhealthrankings.org/illinois/kane/5">http://www.countyhealthrankings.org/illinois/kane/5</a></p> <p>Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. Childhood immunization programs provide a very high return on investment. For example, for each birth cohort vaccinated with the routine immunization schedule (this includes DTap, Td, Hib, Polio, MMR, Hep B, and varicella vaccines), society:</p> <ul style="list-style-type: none"> <li>• Saves 33,000 lives.</li> <li>• Prevents 14 million cases of disease.</li> <li>• Reduces direct health care costs by \$9.9 billion.</li> <li>• Saves \$33.4 billion in indirect costs.</li> </ul>

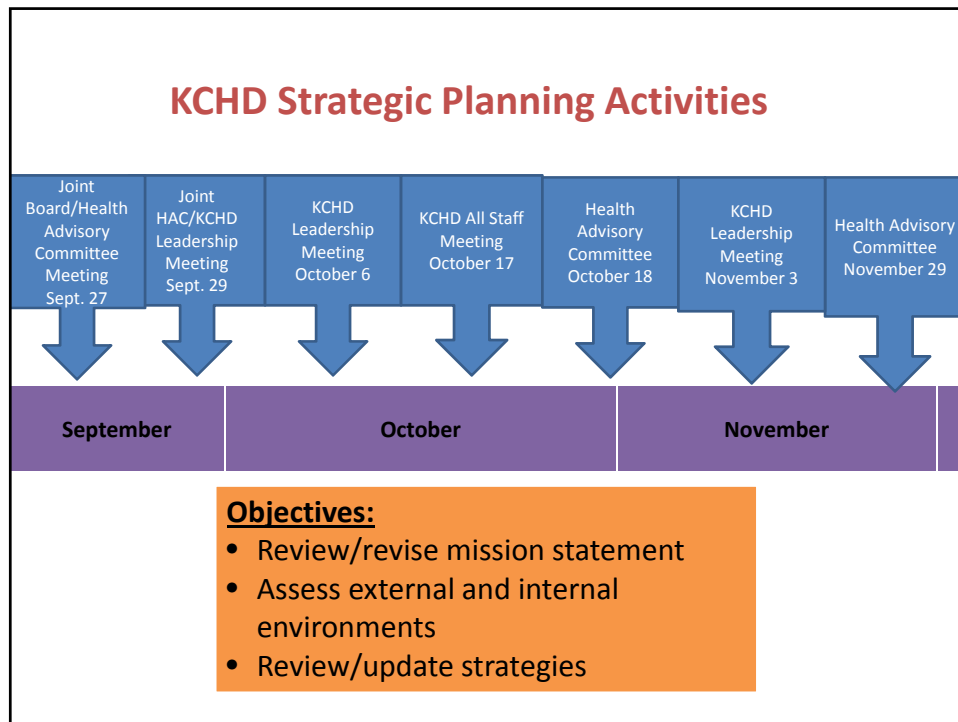
				HP2020: <a href="http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=23">http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=23</a>
Focus culturally appropriate outreach and engagement efforts to eliminate racial disparities in health outcomes, especially in infant mortality.	<p>Measures:</p> <ul style="list-style-type: none"> <li>African American infant mortality rate per 1,000 live births (5-year average)</li> </ul> <p>2011 Baseline:</p> <ul style="list-style-type: none"> <li>12.2 deaths per 1,000 live births (2003-2007)</li> </ul> <p>2016 Goal:</p> <ul style="list-style-type: none"> <li>9.8 deaths per 1,000 live births (20% decrease)</li> </ul>	Illinois Department of Public Health	Infant mortality rates are an important indicator of the health of a nation because they are associated with maternal health, quality of and access to medical care, socioeconomic conditions, and public health practices (1,2). CDC: <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/su6001a9.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/su6001a9.htm</a>	
Enhance systems to support the prevention, early identification and treatment of communicable diseases in the community.	<p>Measure: The number of new cases (Incidence) of Tuberculosis in Kane County per 100,000 residents.</p> <p>2011 Baseline: <i>To be added</i></p> <p>2016 Goal: <i>To be added</i></p>	Kane County Health Department, Disease Prevention Division	The infectious disease public health infrastructure, which carries out disease surveillance at the Federal, State, and local levels, is an essential tool in the fight against newly emerging and re-emerging infectious diseases. HP2020: <a href="http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=23">http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=23</a>	
Enhance systems to support the prevention, early identification and evidence-based treatment of mental health conditions.	<p>Measure: Percentage of Adults Reporting Poor Mental Health. Data represent adults who reported having poor mental health between one and 30 days in the past 30 days.</p> <p>2011 Baseline: 37.5% of adults</p> <p>2016 Goal: 30% of adults (20% improvement)</p>	Kane County Community Health Survey or Illinois BRFSS	The CDC Healthy Days measures are an acknowledged standard for population health surveillance by national and international groups. The four core Healthy Days questions have been asked of all participants in the Behavioral Risk Factor Surveillance System (BRFSS) from 1993 through 2009 (except in 2002 when only 20 states asked these questions). Since 2000, the Healthy Days measures have also been	

administered to respondents aged 12 years or older in the National Health and Nutrition Examination Survey (NHANES). These measures are now accepted as standards in the United States and have been used in other countries including Canada, Sweden, and Italy.  
<http://www.cdc.gov/hrqol/overview.htm>

<p><b>Priority 3 – Support &amp; Create Health Promoting Neighborhoods, Towns &amp; Cities</b></p>	<p>Increase the availability and variety of high quality, safe and affordable housing and compact, mixed use developments.</p>	<p>Measure: Percent of children under six years with elevated blood lead levels</p> <p>2011 Baseline: 1.0% of children less than 6 years old tested have elevated lead levels in their blood.</p> <p>2016 Goal: 0.65% of children less than 6 years old tested will have elevated lead levels in their blood.</p>	<p>Kane County Health Department, Disease Prevention Division</p>	<p>Lead exposure can result in lasting impairment of a child’s development and behavior such as decreased IQ and attention span and increased risk for delinquent behavior (Centers for Disease Control and Prevention 2005d).</p>
	<p>Institute “complete streets” types of policies to ensure that roadways are designed and operated with all users in mind - including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities.</p>	<p>Measure: The percent of Kane County adults who meet the recommended level of physical activity. The percent of Kane County adults who are considered obese or extremely obese as measured by their Body Mass Index (BMI).</p> <p>2011 Baseline:</p> <ul style="list-style-type: none"> <li>• 53.5% of adults meet physical activity recommendations.</li> <li>• 29.4% of adults are considered obese or extremely obese.</li> </ul> <p>2016 Goal:</p> <ul style="list-style-type: none"> <li>• 67% of adults meet physical activity recommendations. (25% improvement)</li> <li>• 25% of adults are considered obese or extremely obese. (15% improvement)</li> </ul>	<p>Kane County CHS</p>	<p>Most weight loss occurs because of decreased caloric intake. However, evidence shows the only way to <i>maintain</i> weight loss is to be engaged in regular physical activity. Most importantly physical activity reduces risks of cardiovascular disease and diabetes beyond that produced by weight reduction alone. CDC: <a href="http://www.cdc.gov/healthyweight/physical_activity/index.html">http://www.cdc.gov/healthyweight/physical_activity/index.html</a></p>
	<p>Assure access to safe</p>	<p>Measure: The percentage of Kane County</p>	<p>Kane County CHS</p>	<p>Physical activity is an important part</p>

	playgrounds, parks, trails and open space.	children who meet the recommended level of physical activity and the percentage of Kane County children considered obese as calculated by their BMI.  2011 Baseline: <i>To be added</i>  2016 Goal: <i>To be added</i>		of regular family life. Studies have shown that lifestyles learned as children are much more likely to stay with a person into adulthood. If sports and physical activities are a family priority, they will provide children and parents with a strong foundation for a lifetime of health. American Academy of Pediatrics: <a href="http://www.aap.org/healthtopics/physact.cfm">http://www.aap.org/healthtopics/physact.cfm</a>
	Assure access to safe food and clean and safe water and air.	Measure: The number of foodborne outbreaks identified in Kane County.  2011 Baseline: <i>To be added</i>  2016 Goal: <i>To be added</i>	Kane County Health Department	Foodborne diseases affect tens of millions of people and kill thousands in the United States each year. They also cause billions of dollars in healthcare-related and industry costs annually. CDC: <a href="http://www.cdc.gov/WinnableBattles/FoodSafety/index.html">http://www.cdc.gov/WinnableBattles/FoodSafety/index.html</a>
<b>Priority 4 – Promoting Social, Economic and Educational environments that optimize health</b>	Increase the proportion of children who have high-quality early developmental support, especially in child care and education.	<i>Measure: Will be added</i>  <i>2011 Baseline: Will be added</i> <i>2016 Goal: Will be added</i>	TBD	Evidence shows that experiences in the 1st years of life are extremely important for a child’s healthy development and lifelong learning. How a child develops during this time affects future cognitive, social, emotional, and physical development, which influences school readiness and later success in life. Research on a number of adult health and medical conditions points to predisease pathways that have their beginnings in early and middle childhood. (HP2020)
	Increase the proportion of	Measure: High school graduation rate, reported	Illinois State Board of	The relationship between more

	<p>Kane young people that complete high school education.</p>	<p>as the percent of the county’s ninth-grade cohort in public schools that graduates from high school in four years.</p> <p>2011 Baseline: 87.1% (2011) Range: 68.7%-96% 2016 Goal: 90%</p>	<p>Education</p>	<p>education and improved health outcomes is well known, with years of formal education correlating strongly with improved work and economic opportunities, reduced psychosocial stress, and healthier lifestyles.</p> <p>CHR: <a href="http://www.countyhealthrankings.org/illinois/kane/21">http://www.countyhealthrankings.org/illinois/kane/21</a></p>
	<p>Increase the job skills and readiness of Kane County residents that are unemployed.</p>	<p>Measure: <i>Will be added</i></p> <p>2010 Baseline: <i>Will be added</i></p> <p>2016 Goal: <i>To be added</i></p>	<p><i>Potential Data Source: Illinois Department of Employment Security</i></p>	<p>While employment has been associated with health improvements, unemployment has been linked with declines in health status. Unemployment may lead to physical health responses ranging from self-reported physical illness to mortality, especially suicide.[6] It has also been shown to lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise, and other health-related behaviors, which in turn can lead to increased risk for disease or mortality.[6]</p> <p>CHR: <a href="http://www.countyhealthrankings.org/health-factors/employment">http://www.countyhealthrankings.org/health-factors/employment</a></p>



## Revised Mission Statement

In active partnership with our community, the Kane County Health Department improves the quality of life and well-being of all residents by developing and implementing local policies, systems, and services that protect and promote health and prevent disease, injury and disability.

## Key External Drivers

1. Funding and the broader impact of the economy.
2. Changing demographics and diversity.
3. Epidemic of obesity and chronic disease.
4. Integration with land use and transportation planning.
5. Health care reform.
6. Information technology.

## Process re: Key Drivers

HAC and Leadership groups applied following to each of the 6 Key Drivers:

- Five 'whys' (root cause analysis)
- "What" analysis (strategic implications)
- Assets and barriers analysis
- Identification of cross cutting focus areas for potential strategic initiatives

<b>Build mission-focused culture</b>	Build a sustainable organizational culture that is based on our core values and focused on achieving our mission.
<b>Model Stewardship</b>	Model responsible stewardship of public resources by providing efficient, high quality and high impact population health services.
<b>Implement Informatics</b>	Fully meet or exceed national public health informatics standards in order to assure timely, efficient and effective communications.
<b>Sustain Partnerships</b>	Sustain focused, effective partnerships to address identified community health priorities and get results that improve population health.
<b>Enhance health communication</b>	Enhance provision of health information to our diverse community that is: tailored, reliable, real-time and actionable.

<b>Sample Implementation Plan</b>			
<b>Strategy</b>	<b>Initiative &amp; Owner</b>	<b>Output &amp; Date</b>	<b>Outcome</b>
<b>Implement Informatics</b>	Make key community health data easily accessible: OCHR	By 6/30/12 Kanehealth.com has community health data repository	Actionable health information for individuals, partnerships and groups

