Regular physical activity, nutritious eating, not smoking, and maintaining a healthy weight can reduce risk of heart attack, stroke, or diabetes by up to 80%. Proactive patients—confident in their ability to manage their health—are fundamental to positive clinical outcomes.

**Encourage Proactive, Healthy Living with:**
- Motivational interviewing
- Evidence-based patient education programs (e.g., Project Dulce, Chronic Disease Self Management Program)
- Tools that promote
  - Medication adherence
  - Regular physical activity (at least 150 min/week)
  - Nutritious eating (e.g., DASH)
  - Smoking cessation
  - Blood pressure control

**Cardiovascular Deaths Attributable to Lifestyle Factors**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco smoking</td>
<td>17%</td>
</tr>
<tr>
<td>Overweight/obesity</td>
<td>8%</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>15%</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>7%</td>
</tr>
<tr>
<td>High blood glucose</td>
<td>8%</td>
</tr>
<tr>
<td>Dietary factors (High Saturated</td>
<td>5%</td>
</tr>
<tr>
<td>Trans Fats, Low Omega-3)</td>
<td></td>
</tr>
<tr>
<td>Other factors</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Clinician Motivational Interviewing Helps Patients Reach Goals**
- A clinician’s encouragement through mutually identifying goals and barriers as well as actionable steps can promote greater success toward healthier living.
- A systematic review of eight studies on motivational interviewing in diabetes, asthma, hypertension, hyperlipidemia, and heart disease suggests positive results.

**Evidence-Based Patient Education Programs Support Self Care and Better Health Outcomes**

**Ex. 1: Project Dulce**
*(Scripps Whittier Diabetes Institute; Athena Philis-Tsimikas, MD)*

A coordinated care team of a nurse, dietician, and peer educator supports the primary care physician to provide culturally appropriate, community-based diabetes management with enhanced education and support.

**Improved outcomes:**

- Projected savings of $1,260/patient over 3 years
- Saved 60% in ER/hospital costs in 1 year
- Met American Diabetes Association standards of care 81% to 100% of the time (vs. only 33% in usual care)
- Overcame many cultural misunderstandings about care

**Ex. 2: Chronic Disease Self-Management Program**
*(Jointly developed by Stanford University & Kaiser Permanente; Kate Lorig, RN, DrPH)*

Six, weekly 2½ hour classes provide participants with the knowledge, skills, and support to self manage their condition. Topics include communication, medications and treatments, and emotional and physical health.

**CDC meta-analysis finds this low-cost program yields significant, small to moderate effects at 9-12 months:**
- Increased self-efficacy (generally and specific to managing disease and other symptoms)
- Increased aerobic exercise
- Reduced social/everyday limitations
Proactive Patient Tools Promote Healthy Lifestyles

**Medication Adherence**
- Only 54% of patients with coronary artery disease were adherent to all initial medications one year after discharge from the hospital with a coronary catheterization. 7
- Clinician coaches on the care team, such as a pharmacist that provides Medication Therapy Management (MTM), increases adherence. 8
- If every hypertensive patient took the right medication dose and frequency, 86,000 premature deaths from cardiovascular disease in the U.S. could be prevented. 9

**Regular Physical Activity**
*(At least 150 min/week, moderate intensity—e.g., brisk walking)*
- Physical activity yields the following heart health benefits:
  - Reduces coronary heart disease risk by 50% 10
  - Reduces stroke risk by 20% among moderately active and 27% among highly active people 11
  - Reduces blood pressure by up to 11/8 mm Hg in most hypertensive patients 10
  - Lowers blood sugar and increases insulin sensitivity, reducing risk of developing type 2 diabetes by 50%; 10
  - A Fitbit Activity Monitor or basic pedometer can monitor and encourage increased activity.
- Locate nearby parks and exercise/recreation areas at [http://www.letsmove.gov/where-go](http://www.letsmove.gov/where-go)

**Nutritious Eating**
- A reduced calorie DASH (Dietary Approaches to Stop Hypertension) eating plan lowered blood pressure 11.4/5.5 mm Hg on average among those with hypertension and 5.5/3 mm Hg on average among all participants.
- The DASH Eating Plan is low in total fat, saturated fat & cholesterol and emphasizes fiber, potassium, magnesium, and calcium. 12
- The National Heart, Blood, and Lung Institute provides free DASH resources and heart-healthy recipes on its website: [http://www.nhlbi.nih.gov/hbp/prevent/h_eating/h_recip.htm](http://www.nhlbi.nih.gov/hbp/prevent/h_eating/h_recip.htm)

**Smoking Cessation**
- Heart attack or stroke risk falls by half within the first year following cessation. Risk is nearly back to that of a non-smoker by three years after cessation. 13 Although quitting smoking is difficult, a variety of strategies, programs, and medications can help.
- If just 3-4% of U.S. smokers quit, 924 hospitalizations for heart attack and 538 for stroke could be avoided, saving $44 million in direct medical costs for the first year alone. 14

**Home Blood Pressure Monitoring for Hypertension**
- Compared to only office monitoring, home monitoring led to less medication use and the same or better blood pressure control, saving about $1200 per 100 patients per month. 15
- Home monitors are available for over-the-counter purchase at most drugstores and cost about $50-$100.

Works Cited