



## Managing Cholesterol and Pursuing a Healthier Lifestyle

September 23, 2015

1:00pm - 2:00pm CT





®  
**Welcome & Introductions**  
**Million Hearts®**

**Description of the ABCS**

John M. Clymer, Executive Director  
National Forum for Heart Disease & Stroke Prevention  
Co-chair Million Hearts® Collaboration

# Agenda

<b>1:00 – 1:05pm</b>	<b>Welcome and Introductions</b>	<b>John M. Clymer, Executive Director National Forum for Heart Disease &amp; Stroke Prevention</b>
<b>1:05 – 1:10pm</b>	<b>Million Hearts® and Cholesterol</b>	<b>John M. Clymer, Executive Director National Forum for Heart Disease &amp; Stroke Prevention</b>
<b>1:10 – 1:22pm</b>	<b>Improving Cholesterol Management and Control</b>	<b>Jennifer G. Robinson, MD, MPH, FAHA Professor, Departments of Epidemiology &amp; Medicine Director, Prevention Intervention Center University of Iowa, College of Public Health</b>
<b>1:22 – 1:34pm</b>	<b>Public Health Role in Cholesterol Awareness</b>	<b>Eduardo Sanchez, M.D., M.P.H. Chief Medical Officer for Prevention American Heart Association</b>
<b>1:34 – 1:39pm</b>	<b>Review of Cholesterol Tools and Resources</b>	<b>April Wallace, MHA, Program Manager Million Hearts® Collaboration American Heart Association</b>
<b>1:39 – 1:55pm</b> <b>1:55 – 2:00pm</b>	<b>Q and A</b> <b>Final Remarks</b>	<b>John M. Clymer, Executive Director National Forum for Heart Disease &amp; Stroke Prevention</b>

## Million Hearts®

**Goal: Prevent 1 million heart attacks  
and strokes by 2017**

- US Department of Health and Human Services initiative, co-led by:
  - Centers for Disease Control and Prevention (CDC)
  - Centers for Medicare & Medicaid Services (CMS)
- Partners across federal and state agencies and private organizations



# Key Components of Million Hearts®

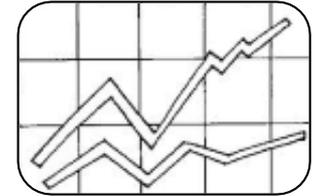
**Keeping Us Healthy**  
*Changing the environment*

Health  
Disparities

**Excelling in the ABCS**  
*Optimizing care*



Focus on  
the ABCS



Health tools  
and technology



Innovations in  
care delivery



## The ABCS to Prevent Heart Attacks and Strokes

**A**spirin

People who have had a heart attack and stroke who are taking aspirin

**B**lood pressure

People with hypertension who have adequately controlled blood pressure

**C**holesterol

People with high cholesterol who are effectively managed

**S**moking

People trying to quit smoking who get help



## Getting to Goal

Intervention	2009-2010 Measure Value	2017 Target	Clinical target
<b>A</b> spirin for those at risk	54%	65%	70%
<b>B</b> lood pressure control	52%	65%	70%
<b>C</b> holesterol management	33%	65%	70%
<b>S</b> moking cessation	22%	65%	70%
Smoking prevalence	26%	10% reduction (~24%)	
Sodium reduction	3580 mg/day	20% reduction (~2900 mg/day)	
Trans fat reduction (artificial)	0.6% of calories	100% reduction (0% of calories)	

# Clinical Quality Measures

ABCS	Number	Measure
A	PQRS 204 NQF 0068	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or other antithrombotic
B	PQRS 317	Preventive Care and Screening: Screening for High Blood Pressure Percentage of patients aged 18 and older who are screened for high blood pressure
B	PQRS 236 NQF 0018	Hypertension: Controlling High Blood Pressure Percentage of patients aged 18 through 85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (<140/90) during the measurement year
C (EHR)	PQRS 316	Preventive Care and Screening: Cholesterol– Fasting Low Density Lipoprotein (LDL) Test Performed AND Risk-Stratified Fasting LDL Percentage of patients aged 20 through 79 years whose risk factors have been assessed and a fasting LDL test has been performed AND who had a fasting LDL test performed and whose risk-stratified fasting LDL is at or below the recommended LDL goal



PQRS = CMS Physician Quality Reporting System, NQF = National Quality Forum,  
EHR = electronic health record



## Clinical Quality Measures (cont'd)

ABCS	Number	Measure
C (No EHR)	PQRS #2 NQF #0064	Diabetes Mellitus: Low Density Lipoprotein (LDL-C) Control in Diabetes Mellitus Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent LDL-C level in control (less than 100 mg/dL)
C (No EHR)	PQRS #241 NQF #0075	PQRS Measure #241 (NQF 0075): Ischemic Vascular Disease (IVD): Complete Lipid Panel and Low Density Lipoprotein (LDL-C) Control Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) who received at least one lipid profile within 12 months and who had most recent LDL-C level in control (less than 100 mg/dL)
S	PQRS 226 NQF 0028	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention Percentage of patients aged 18 years or older who were screened about tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user



PQRS = CMS Physician Quality Reporting System, NQF = National Quality Forum, EHR = electronic health record



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CDC StreamingHealth



## **Improving Cholesterol Management and Control**

Jennifer G. Robinson, MD, MPH, FAHA

Professor, Co-Director

Prevention Intervention Center

University of Iowa, College of Public Health

# Disclosures

Vice-Chair, 2013 ACC/AHA Cholesterol Guideline

Member, 2013 ACC/AHA Risk Assessment Guideline

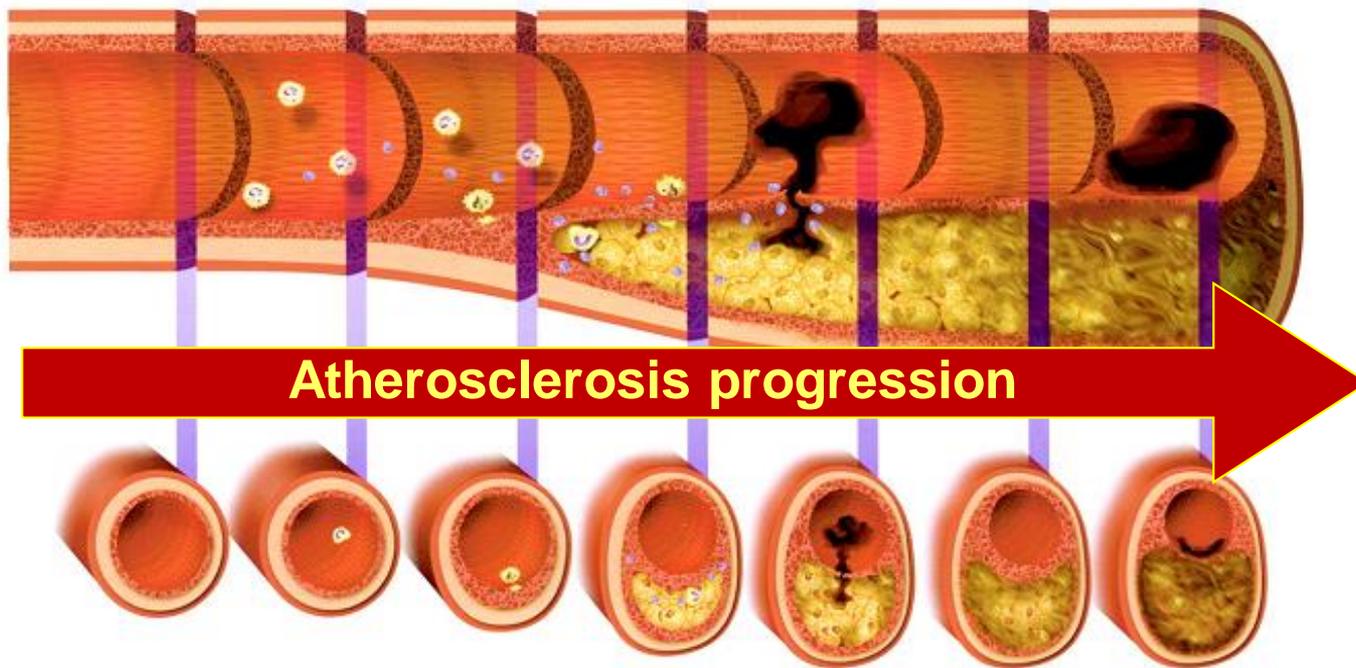
Received in the past year:

Research grants to the institution: Amarin, Amgen, Astra-Zeneca, Daiichi-Sankyo, Genetech/Hoffman LaRoche, Glaxo-Smith Kline, Merck, Regeneron/Sanofi, Zinfandel/Takeda

Consultant: Amgen, Hoffman LaRoche, Lilly, Merck, Pfizer, Regeneron/Sanofi

# Conceptualizing interventions to reduce ASCVD risk

## Atherosclerotic Cardiovascular Disease Progression Through the Lifespan



### CVD EVENTS

MI/Unstable  
angina

Ischemic  
stroke/TIA

Critical leg  
ischemia

Intermittent  
claudication

CV death

**PRACTICE GUIDELINE**

## 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults<sup>☆</sup>



A Report of the American College of Cardiology/American Heart Association  
Task Force on Practice Guidelines

*Endorsed by the American Academy of Physician Assistants, American Association of Cardiovascular and Pulmonary Rehabilitation, American Pharmacists Association, American Society for Preventive Cardiology, Association of Black Cardiologists, Preventive Cardiovascular Nurses Association, and WomenHeart: The National Coalition for Women With Heart Disease*

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Gordon F. Tomaselli, MD, FACC, FAHA, *Co-Chair*

## 2013 ACC/AHA Guideline on the Assessment of Cardiovascular Risk<sup>☆</sup>



A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines

Endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation, American Pharmacists Association, American Society for Nutrition, American Society for Preventive Cardiology, American Society of Hypertension, Association of Black Cardiologists, National Lipid Association, Preventive Cardiovascular Nurses Association, and WomenHeart: The National Coalition for Women With Heart Disease

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<http://dx.doi.org/10.1016/j.jacc.2013.11.003>

Expert Work Group Members

## 2013 AHA/ACC Guideline on Lifestyle Management to Reduce Cardiovascular Risk<sup>☆</sup>



A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines

Endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation, American Pharmacists Association, American Society for Nutrition, American Society for Preventive Cardiology, American Society of Hypertension, Association of Black Cardiologists, National Lipid Association, Preventive Cardiovascular Nurses Association, and WomenHeart: The National Coalition for Women With Heart Disease

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## 2013 AHA/ACC/TOS Guideline for the Management of Overweight and Obesity in Adults<sup>☆</sup>



A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and The Obesity Society

Endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation, American Pharmacists Association, American Society for Nutrition, American Society for Parenteral and Enteral Nutrition, American Society for Preventive Cardiology, American Society of Hypertension, Association of Black Cardiologists, National Lipid Association, Preventive Cardiovascular Nurses Association, The Endocrine Society, and WomenHeart: The National Coalition for Women With Heart Disease

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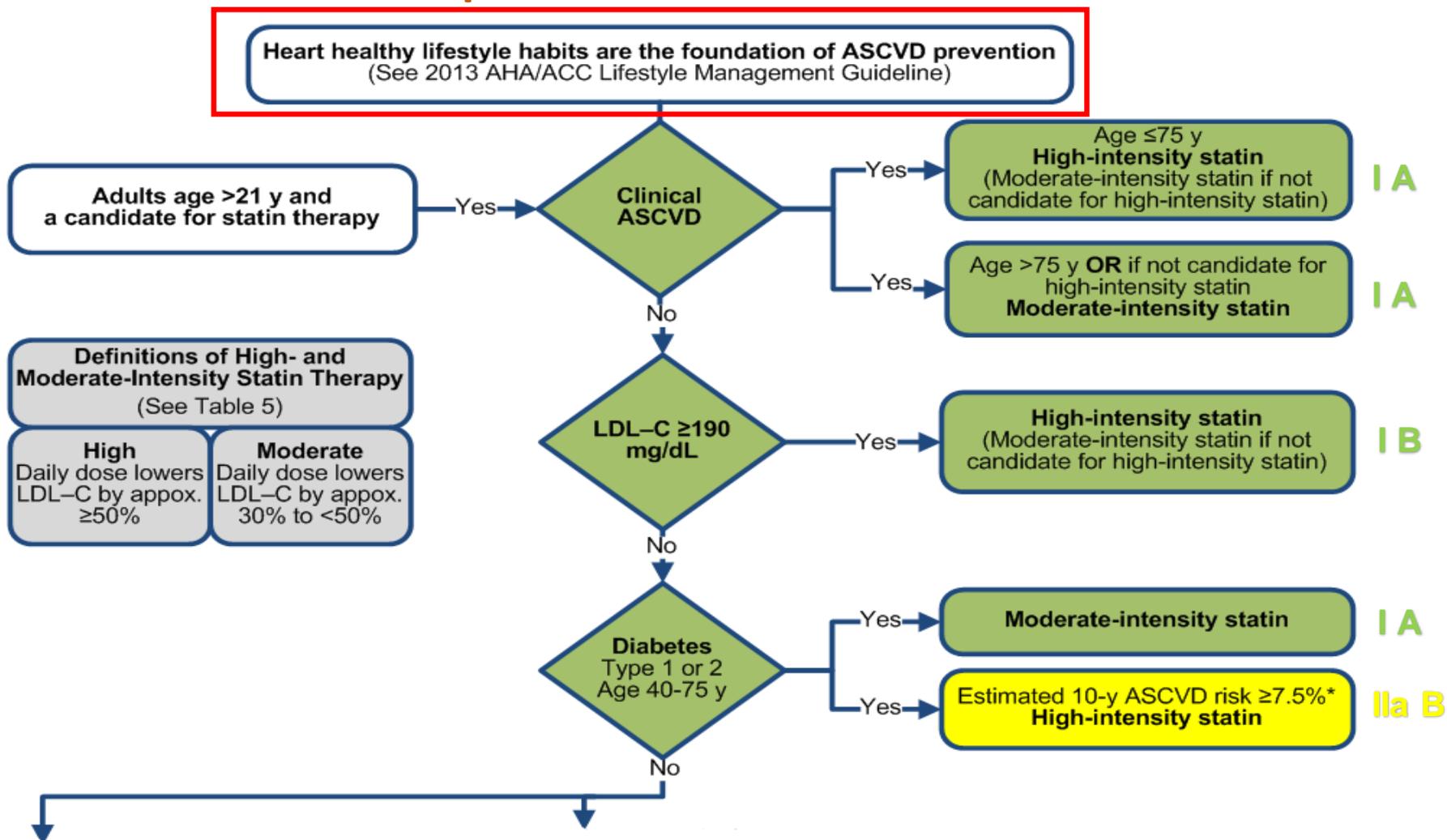
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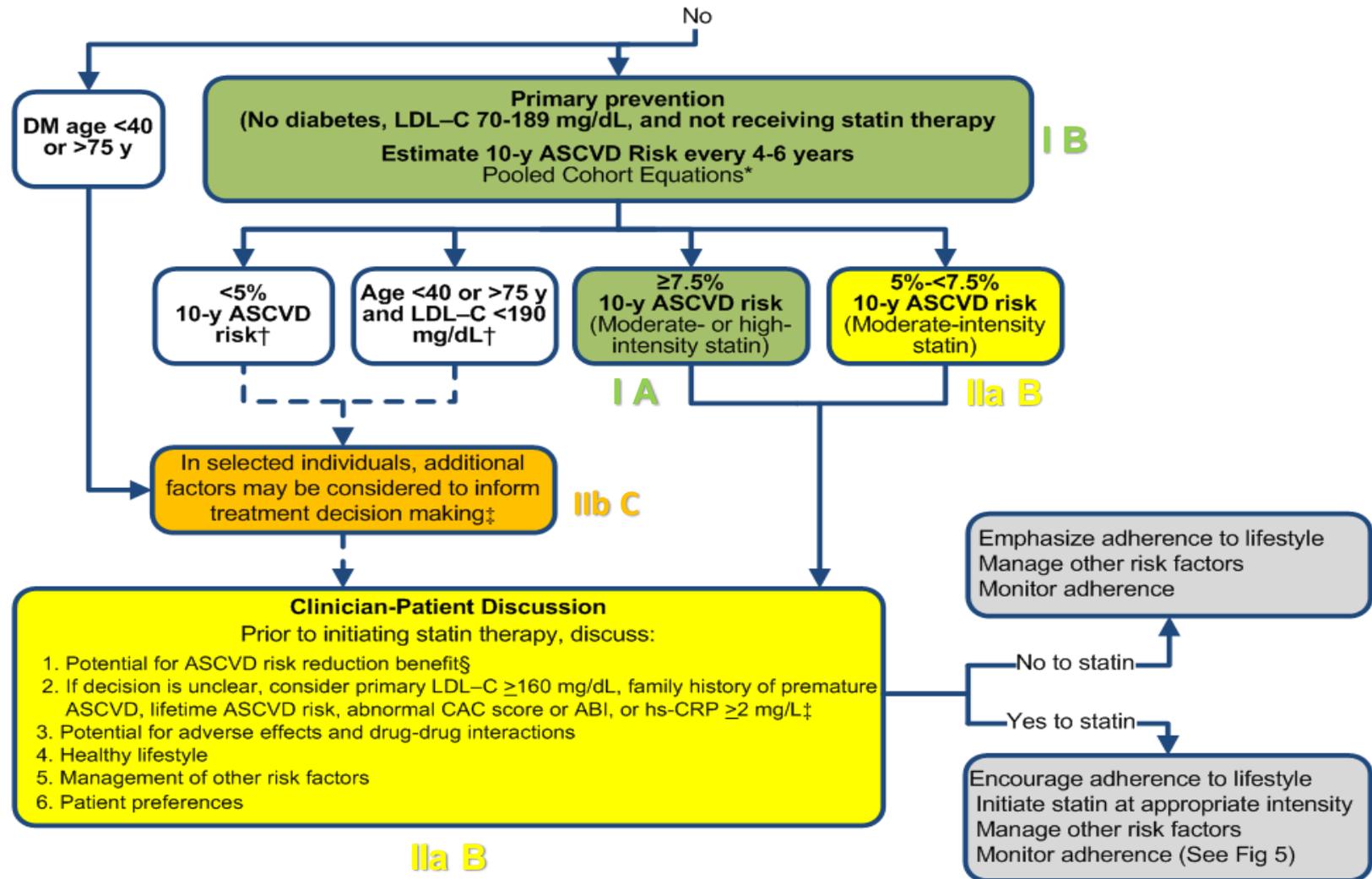
# 2013 ACC/AHA Cholesterol Guideline to Reduce ASCVD Risk

## Major recommendations for *initiating* statin therapy based on patient's level of RISK



# 2013 ACC/AHA Cholesterol Guideline to Reduce ASCVD Risk

## Major recommendations for *initiating* statin therapy based on patient's level of RISK (cont)

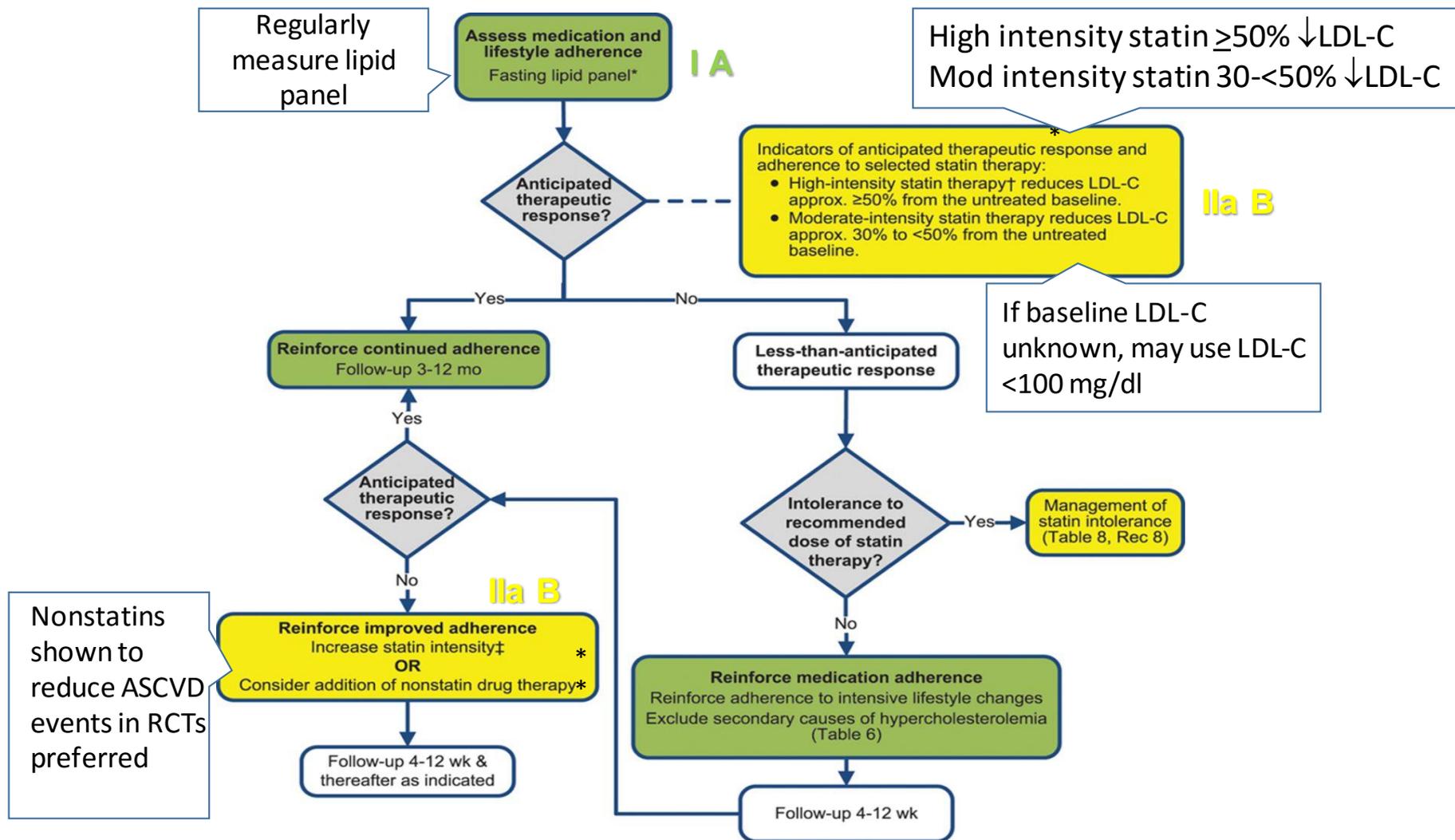


# New Perspective LDL-C & Non-HDL-C Goals

1. No RCT evidence to support titration of drug therapy to specific LDL-C and/or non-HDL-C goals/thresholds
2. Need to know net benefit from treat-to-target strategy
  - Harmful nonstatins: Torcetrapib, HPS2-THRIVE (niacin/laropriprant), WHI (Estrogen+Progestin, Estrogen)
  - Both are above goal: LDL-C 120→69 mg/dl (33% RRR) vs 75→69 mg/dl (3% RRR)
3. Treat-to-target may result in suboptimal evidence-based statin therapy or increased risk of adverse events
  - LDL-C at goal on pravastatin 10 mg (<25% LDL-C lowering)
  - No statin in a patient with LDL-C 90 mg/dl & diabetes or multiple risk factors
  - Safety concerns: Reduce dose of atorvastatin from 80 to 20 mg to add niacin 2 g or fenofibrate

# 2013 ACC/AHA Cholesterol Guideline to Reduce ASCVD Risk

## Monitoring Therapeutic Response and Adherence



# Testing the new paradigm: 2013 ACC/AHA cholesterol guideline outperforms NCEP ATP 3

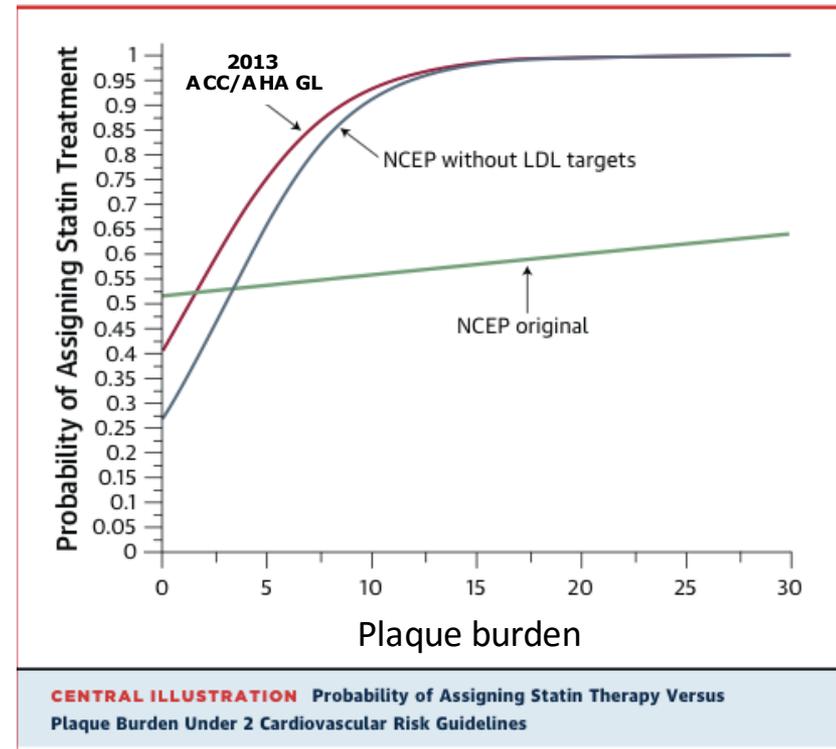
## LDL-C cut-points are the main problem with ATP3

### ✓ 2013 ACC/AHA - Will prevent more CVD events

- Dallas Heart Study – identified more high risk patients
- U.S. NHANES – would prevent 450,000 more ASCVD events/10 years
- Cost-effective

### ✓ Why? No correlation LDL-C levels with plaque (CTA or CAC)

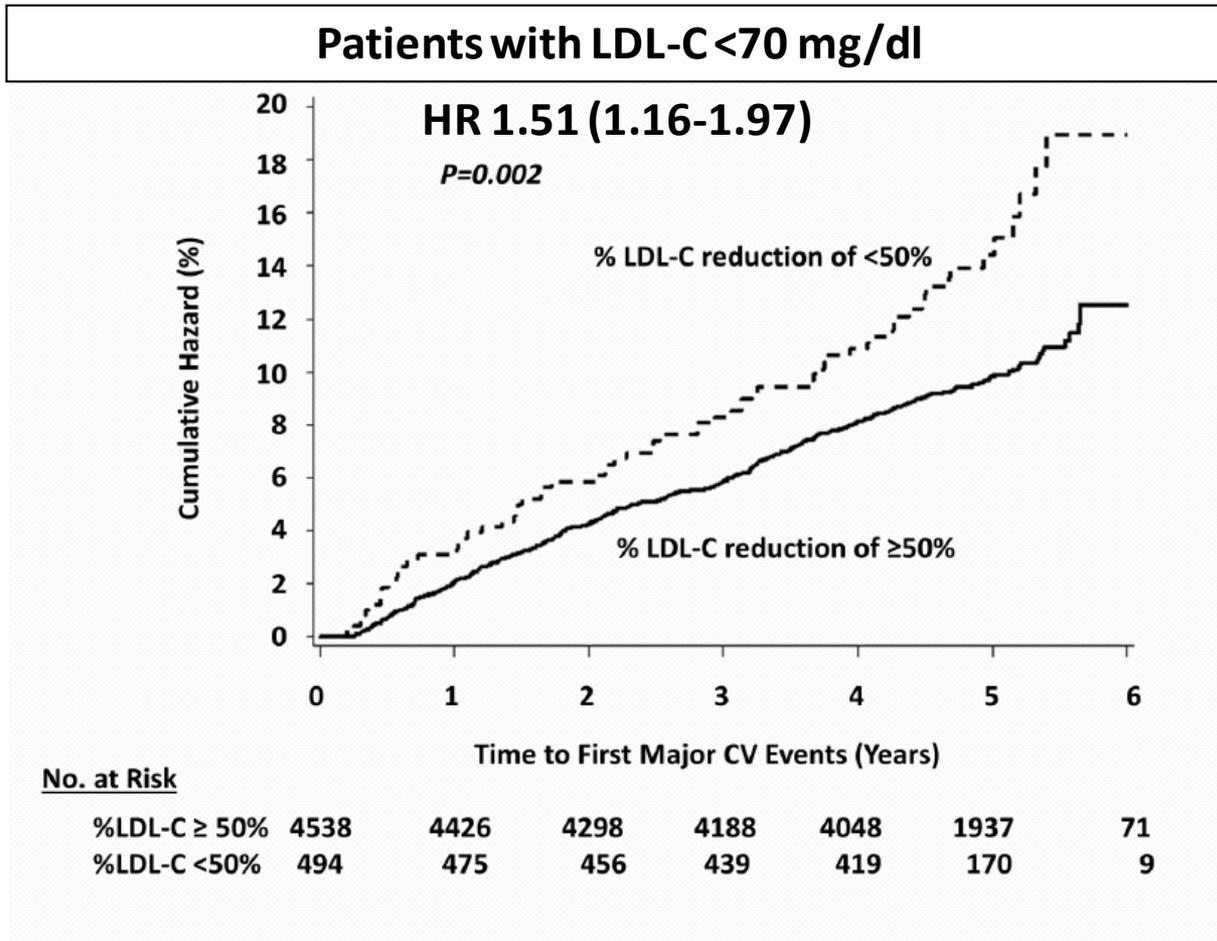
- Removing LDL-C cut-points improves accuracy NCEP ATP 3



Paixo ARM, et al. Circ Cardiovasc Qual Outcomes online ahead-of-print Aug 5, 2014; Pencina MJ, et al. *NEJM*. 2014;370(15):1422-1431.; Pandya A, Sy S, Cho S, Weinstein MC, Gaziano TA. COst-effectiveness of 10-year risk thresholds for initiation of statin therapy for primary prevention of cardiovascular disease. *JAMA* 2015;314:142-150. Johnson KM et al. *JACC* 2014; 64: 910-919; Pursani A, et al. *Atherosclerosis* 2014; 237-314-318; Pursnani A, et al. *JAMA* 2015;314:134-141. Karmali KN, et al. *JACC* 2014; 64: 959-968; Rhee E, et al. *Atherosclerosis* 2015; 240:242-249

# Reducing $\geq 50\%$ LDL-C prevents more ASCVD events than achieved LDL-C $< 70$ mg/dl

## TNT-IDEAL-SPARCL Pooled Analysis

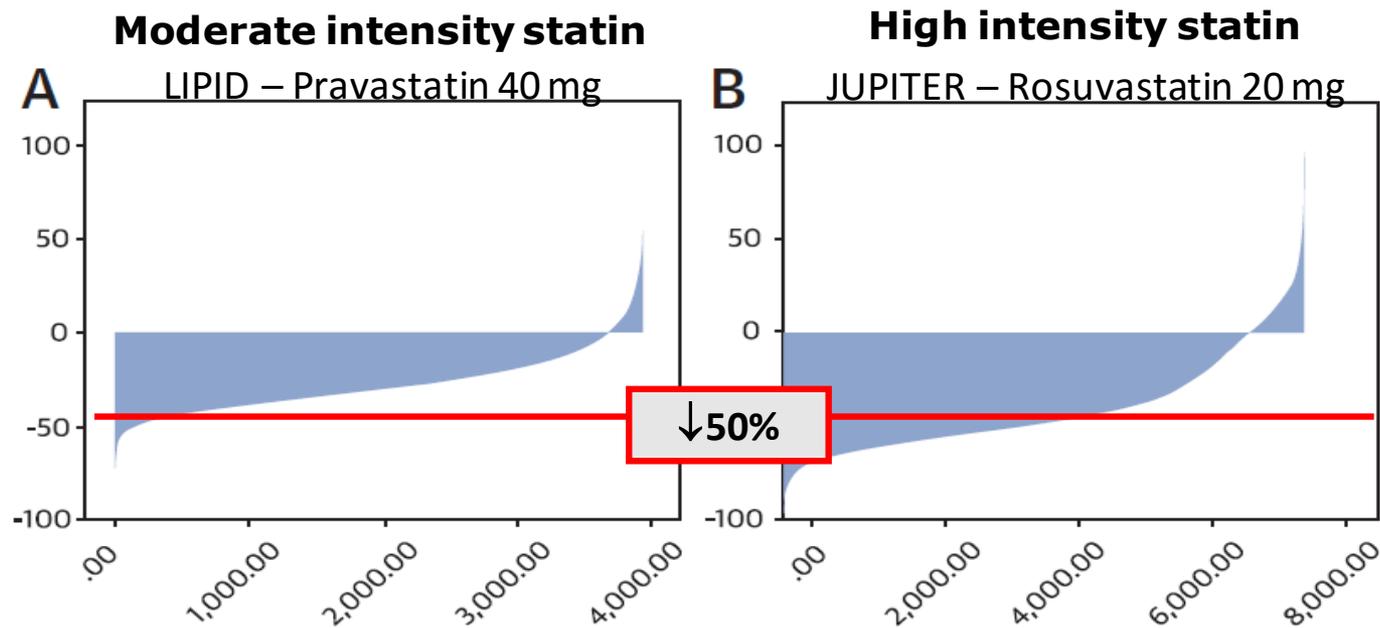


# 2013 ACC/AHA cholesterol guideline framework

## 1. Maximize statin therapy

## 2. Add nonstatin in high risk patients

- Statin intolerant or less than high intensity statin
- To achieve  $\geq 50\%$  LDL-C reduction



# ASCVD Risk Estimator – Primary prevention with or without diabetes

## Search “ASCVD Risk Estimator”



### 2013 Prevention Guidelines Tools

# CV RISK CALCULATOR

This downloadable spreadsheet is a companion tool to the [2013 ACC/AHA Guideline on the Assessment of Cardiovascular Risk](#). The spreadsheet enables health care providers and patients to estimate 10-year and lifetime risks for atherosclerotic cardiovascular disease (ASCVD), defined as coronary death or nonfatal myocardial infarction, or fatal or nonfatal stroke, based on the Pooled Cohort Equations and the work of Lloyd-Jones, et al., respectively. The information required to estimate ASCVD risk includes age, sex, race, total cholesterol, HDL cholesterol, systolic blood pressure, blood pressure lowering medication use, diabetes status, and smoking status.

Estimates of 10-year risk for ASCVD are based on data from multiple community based populations and are applicable to African-American and non-Hispanic white men and women 40 through 79 years of age. For other ethnic groups, we recommend use of the equations for non-Hispanic whites, though these estimates may underestimate the risk for persons from some race/ethnic groups, especially American Indians, some Asian Americans (e.g., of south Asian ancestry), and some Hispanics (e.g., Puerto Ricans), and may overestimate the risk for others, including some Asian Americans (e.g., of east Asian ancestry) and some Hispanics (e.g., Mexican Americans).

Estimates of lifetime risk for ASCVD are provided for adults 20 through 59 years of age and are shown as the lifetime risk for ASCVD for a 50-year old without ASCVD who has the risk factor values entered into the spreadsheet. The estimates of lifetime risk are most directly applicable to non-Hispanic whites. We recommend the use of these values for other race/ethnic groups, though as mentioned above, these estimates may represent under- and overestimates for persons of various ethnic groups. Because the primary use of these lifetime risk estimates is to facilitate the very important discussion regarding risk reduction through lifestyle change, the imprecision introduced is small enough to justify proceeding with lifestyle change counseling informed by these results.

The American Heart Association and the American College of Cardiology are excited to provide a series of new cardiovascular prevention guidelines for the assessment of cardiovascular risk, lifestyle modifications that reduce risk, management of elevated blood cholesterol, and management of increased body weight in adults. To support the implementation of these guidelines, the new Pooled Cohort Equations CV Risk Calculator and additional Prevention Guideline Tools are available below. Others may be developed and available in the near future.



Figure 1. Implementation of Risk Assessment Work Group Recommendations

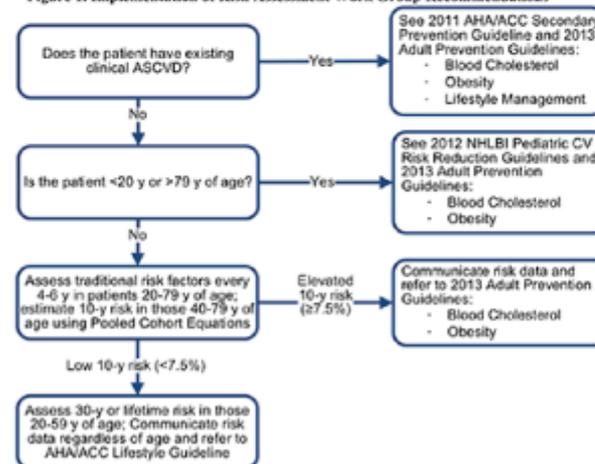


Figure 1. Implementation of Risk Assessment Work Group Recommendations

**Clinical Vignettes**

# ASCVD Risk Estimator

## Search "ASCVD risk estimator"

The screenshot shows the ASCVD Risk Estimator web application. At the top, there are navigation tabs for 'Estimator', 'Clinicians', 'Patients', and 'About'. The main content area is divided into two columns: '10-Year ASCVD Risk' and 'Lifetime ASCVD Risk'. The 10-year risk is 7.7% (calculated) and 1.8% (with optimal risk factors). The lifetime risk is 39% (calculated) and 8% (with optimal risk factors). A red box highlights a button labeled 'Recommendation Based On Calculation' with a right-pointing arrow. Below the risk results are input fields for various factors: Gender (Female selected), Age (55), Race (African American selected), HDL - Cholesterol (56 mg/dL), Total Cholesterol (210 mg/dL), Diabetes (No selected), Treatment for Hypertension (No selected), Systolic Blood Pressure (145), and Smoker (No selected). A 'Skip steps' button is visible on the right side of the page.

Metric	Calculated Risk	Risk with Optimal Risk Factors
10-Year ASCVD Risk	7.7%	1.8%
Lifetime ASCVD Risk	39%	8%

**Recommendation Based On Calculation** →

Gender:  Male  Female

Age:

Race:  White  African American  Other

HDL - Cholesterol (mg/dL):

Total Cholesterol (mg/dL):

Diabetes:  Yes  No

Treatment for Hypertension:  Yes  No

Systolic Blood Pressure:

Smoker:  Yes  No

# Use ACC/AHA ASCVD risk prediction equations for primary prevention

**In U.S. – use 2013 Pooled Cohort Equations include CHD & stroke by race/sex**

- **Include CHD & stroke by race/sex**
- Better identifies at-risk Black M & W and white W at much younger ages and lower risk factor levels than ATP 3
- **Pooled Cohort Equations validated in REGARDS**
  - US population-based study 30,000 randomly selected white & black participants
  - Very good discrimination/calibration
- **May overestimate risk in low-risk cohorts**
  - High education/SES & clinical trial volunteers, Chinese/East Asians, Mexican Americans
  - *Inform Clinician-Patient Discussion*

# Treatment gaps

- **Clinical ASCVD**
  - 42-52% women/35-43% men not on a statin
  - White - 42% not on a statin
  - African American -59% not on a statin
  - Hispanic - 67% not on a statin
- **Genetic hypercholesterolemia – LDL-C >190 mg/dl**
  - >80% with FH are undiagnosed/untreated
- **Diabetes age 40-75 years**
  - 48-51% are not on statin

Virani SS, et al. Am J Cardiol 2015; 115: 21-26

Johansen ME, et al. Ann Fam Med 2014; 12: 215-223

Goldberg AC, et al. J Clin Lipidol 2011; 5: S1-S8



## **Public Health Role in Cholesterol Awareness**

Eduardo Sanchez, M.D., M.P.H., FAAP  
Chief Medical Officer for Prevention  
American Heart Association

# The concept of cardiovascular health

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- An expanded focus on promotion of positive cardiovascular health as well as CVD prevention and treatment of established CVD.
- The prioritization of health behaviors (no smoking, healthy diet pattern, adequate physical activity and health factors (BMI, optimal blood pressure, blood lipids, glucose levels) as primary goals unto themselves.
- Population-level health promotion strategies to shift the majority of the public toward better cardiovascular health, in addition to targeting those individuals at greatest CVD risk, because CVD risk is not proportionately distributed or addressed accordingly.

# The current evidence supports a range of complementary strategies to improve cardiovascular health, including:

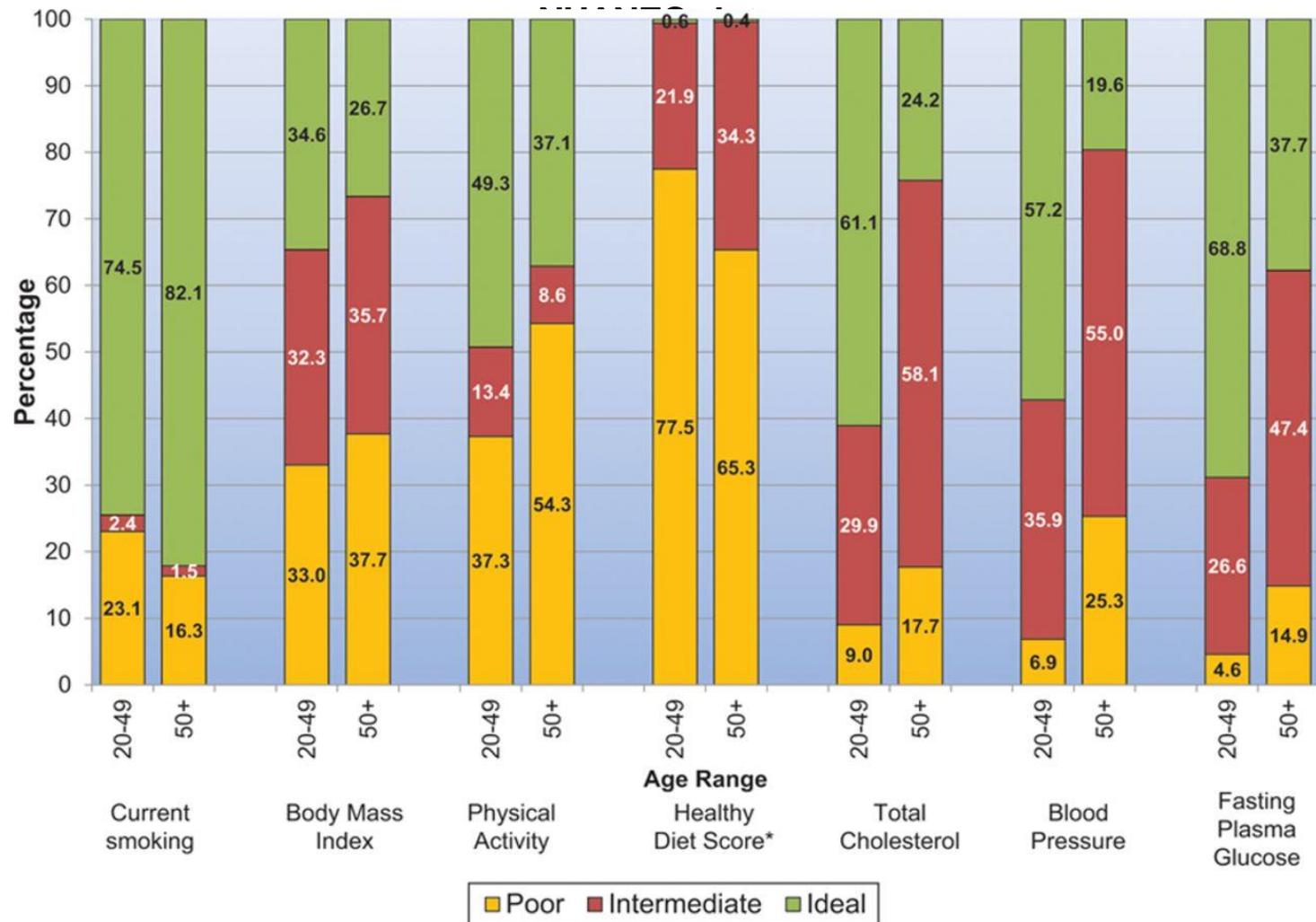
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- Individual-focused approaches, which target lifestyle and treatments at the individual level
- Healthcare systems approaches, which encourage, facilitate, and reward efforts by providers to improve health behaviors and health factors
- Population approaches, which target lifestyle and treatments in schools or workplaces, local communities, and states, as well as throughout the nation

# Cardiovascular Health Status Levels

LIFE'S SIMPLE 7	POOR	INTERMEDIATE	IDEAL
 <p><b>Smoking Status</b> Adults &gt;20 years of age Children (12–19)</p>	<p>Current Smoker Tried prior 30 days</p>	<p>Former ≤ 12 mos</p>	<p>Never /quit ≥ 12 mos</p>
 <p><b>Physical Activity</b> Adults &gt; 20 years of age Children 12-19 years of age</p>	<p>None None</p>	<p>1-149 min/wk mod or 1-74 min/wk vig or 1-149 min/wk mod + vig  &gt;0 and &lt;60 min of mod or vig every day</p>	<p>150+ min/wk mod or 75+ min/wk vig or 150+ min/wk mod + vig  60+ min of mod or vig every day</p>
 <p><b>Healthy Diet</b> Adults &gt;20 years of age Children 5-19 years of age</p>	<p>0-1 components 0-1 components</p>	<p>2-3 components 2-3 components</p>	<p>4-5 components 4-5 components</p>
 <p><b>Healthy Weight</b> Adults &gt; 20 years of age Children 2-19 years of age</p>	<p>≥30 kg/m<sup>2</sup> &gt;95<sup>th</sup> percentile</p>	<p>25-29.9 kg/m<sup>2</sup> 85<sup>th</sup>-95<sup>th</sup> percentile</p>	<p>&lt;25 kg/m<sup>2</sup> &lt;85<sup>th</sup> percentile</p>
 <p><b>Blood Glucose</b> Adults &gt;20 years of age Children 12-19 years of age</p>	<p>126 mg/dL or more 126 mg/dL or more</p>	<p>100-125 mg/dL or treated to goal 100-125 mg/dL</p>	<p>Less than 100 mg/dL Less than 100 mg/dL</p>
 <p><b>Cholesterol</b> Adults &gt;20 years of age Children 6-19 years of age</p>	<p>≥240 mg/dL ≥200 mg/dL</p>	<p>200-239 mg/dL or treated to goal 170-199 mg/dL</p>	<p>&lt;170 mg/dL</p>
 <p><b>Blood Pressure</b> Adults &gt;20 years of age Children 8-19 years of age</p>	<p>SBP ≥140 or DBP ≥90 mm Hg  &gt;95<sup>th</sup> percentile</p>	<p>SBP120-139 or DBP 80-89 mm Hg or treated to goal  90<sup>th</sup>-95<sup>th</sup> percentile or SBP ≥120 or DBP &gt;80 mm Hg</p>	<p>&lt;120/&lt;80 mm Hg  &lt;90<sup>th</sup> percentile</p>

**Prevalence (unadjusted) estimates of poor, intermediate, and ideal cardiovascular health for each of the 7 metrics of cardiovascular health in the American Heart Association 2020 goals among US adults aged 20 to 49 years and ≥50 years, National Health and Nutrition Examination Survey (NHANES) 2011 to 2012. \*Healthy diet score data reflects 2009 to 2010**



Dariush Mozaffarian et al. *Circulation*. 2015;131:e29-e322



# High Blood Cholesterol and Other Lipids

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- **46 .6% of adults have ideal cholesterol levels** (untreated total cholesterol <200 mg/dL for adults) . Prevalence of ideal levels has remained the same in adults over the past decade.
- According to 2009 to 2012 data,
  - More than 100 million US adults ( $\geq 20$  years of age) have total cholesterol levels  $\geq 200$  mg/dL – about one-in-three;
  - **almost 31 million have levels  $\geq 240$  mg/dL with a prevalence of 13.1%**

# US Preventive Services Task Force Cholesterol Screening Recommendations

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- Men 35 and Older: strongly recommends screening men aged 35 and older for lipid disorders. A recommendation.
- Men 20-35 at Increased Risk for CHD: recommends screening men aged 20-35 for lipid disorders if they are at increased risk for coronary heart disease. B recommendation.
- Women 45 and Older at Increased Risk for CHD: strongly recommends screening women aged 45 and older for lipid disorders if they are at increased risk for coronary heart disease. B recommendation.
- Women 20-45 at Increased Risk for CHD: recommends screening women aged 20-45 for lipid disorders if they are at increased risk for coronary heart disease. B recommendation.
- In Progress
  - Lipid disorders in Adults: Screening— release in 2015
  - Dyslipidemia in children and adolescents: Screening— release in 2016

[A - There is high certainty that the net benefit is substantial.](#)

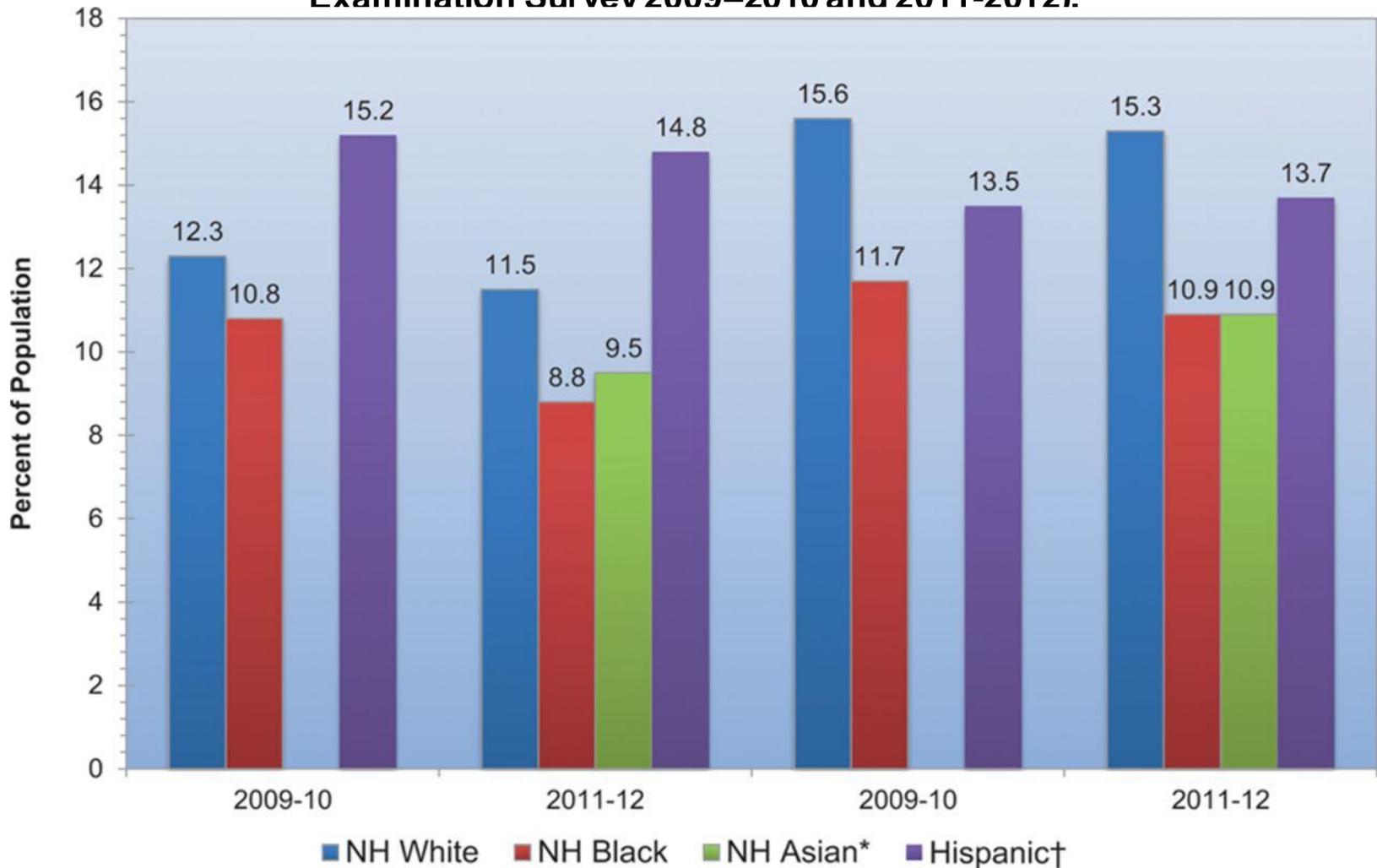
[B - There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.](#)

# US Preventive Services Task Force Cholesterol Screening Recommendations

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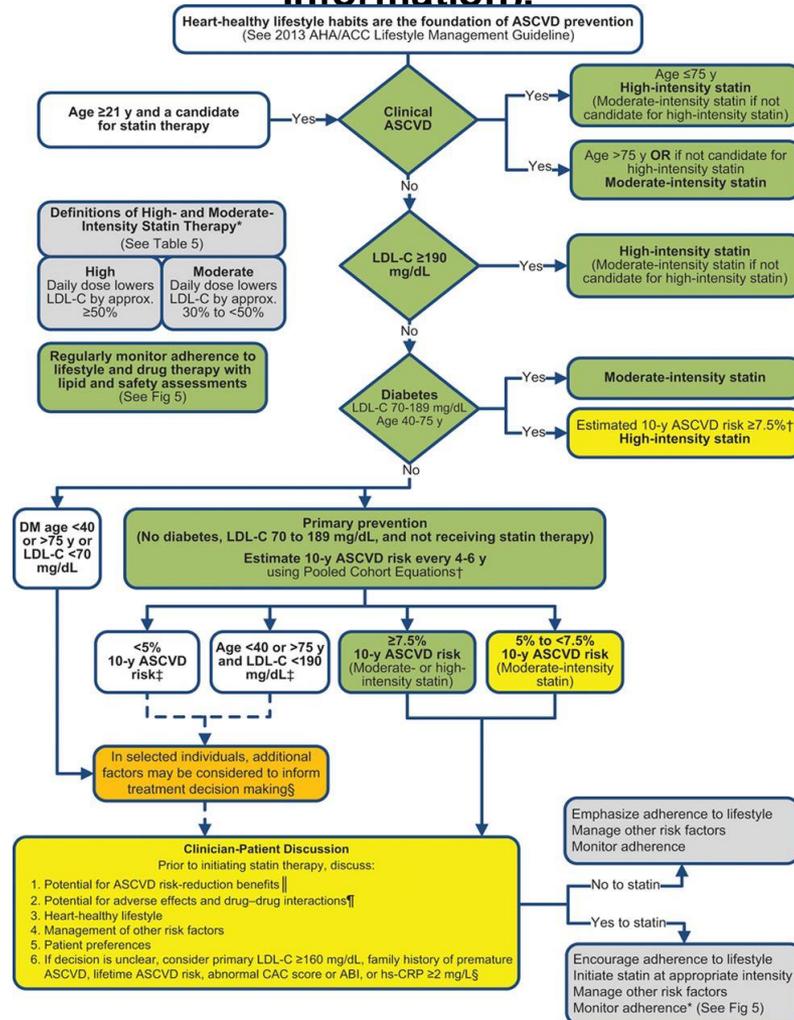
- The optimal interval for screening is uncertain.
- On the basis of other guidelines and expert opinion:
  - reasonable options include every 5 years,
  - shorter intervals for people who have lipid levels close to those warranting therapy,
  - and longer intervals for those not at increased risk who have had repeatedly normal lipid levels.

**Age-adjusted trends in the prevalence of serum total cholesterol  $\geq 240$  mg/dL in adults  $\geq 20$  years of age by sex, race/ethnicity, and survey year (National Health and Nutrition Examination Survey 2009–2010 and 2011–2012).**



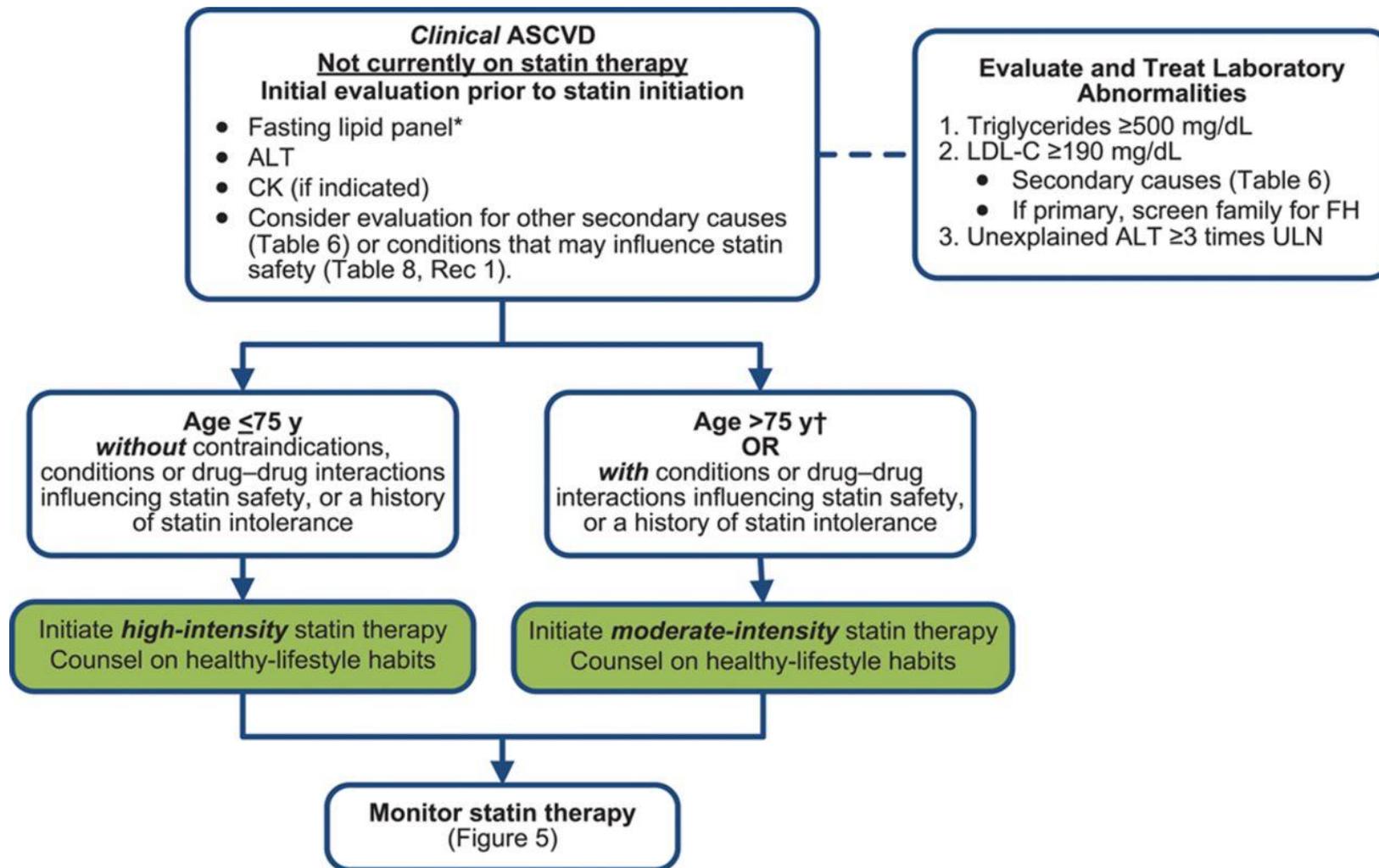
Dariusz Mozaffarian et al. *Circulation*. 2015;131:e29-e322

# Summary of Statin Initiation Recommendations for the Treatment of Blood Cholesterol to Reduce ASCVD Risk in Adults (See Figures 3, 4, and 5 for More Detailed Management Information).



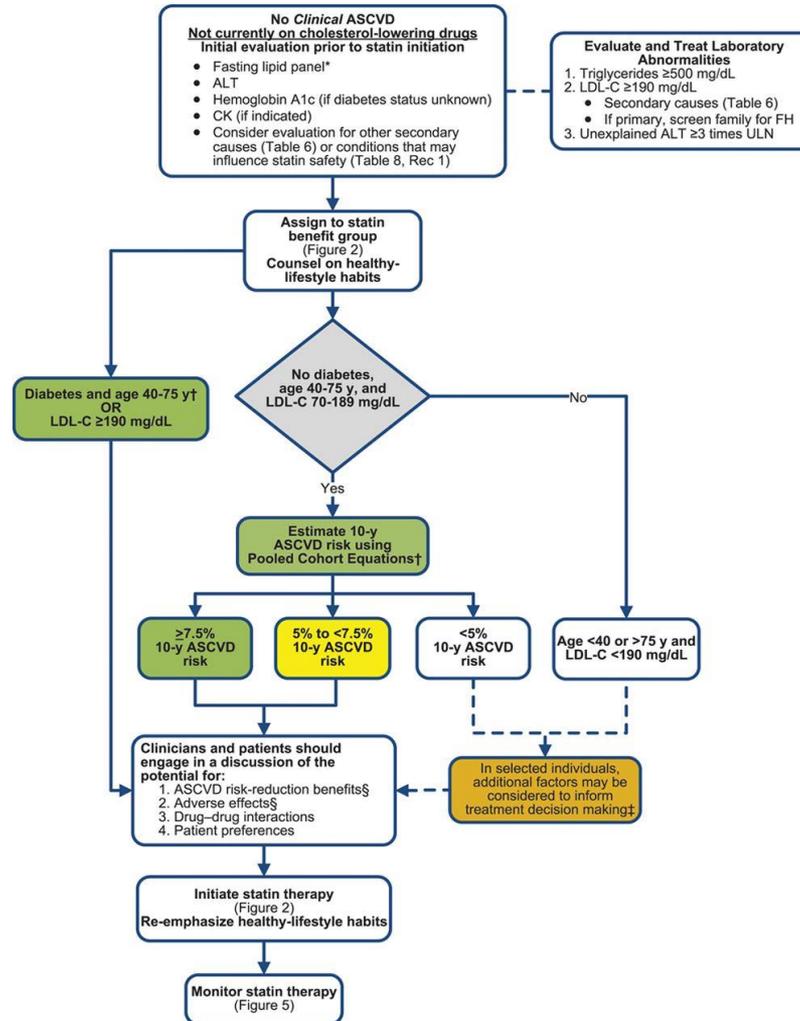
Neil J. Stone et al. *Circulation*. 2014;129:S1-S45

# Initiating Statin Therapy in Individuals With Clinical ASCVD. Colors correspond to the Classes of Recommendation in Table 1. \*Fasting lipid panel preferred.



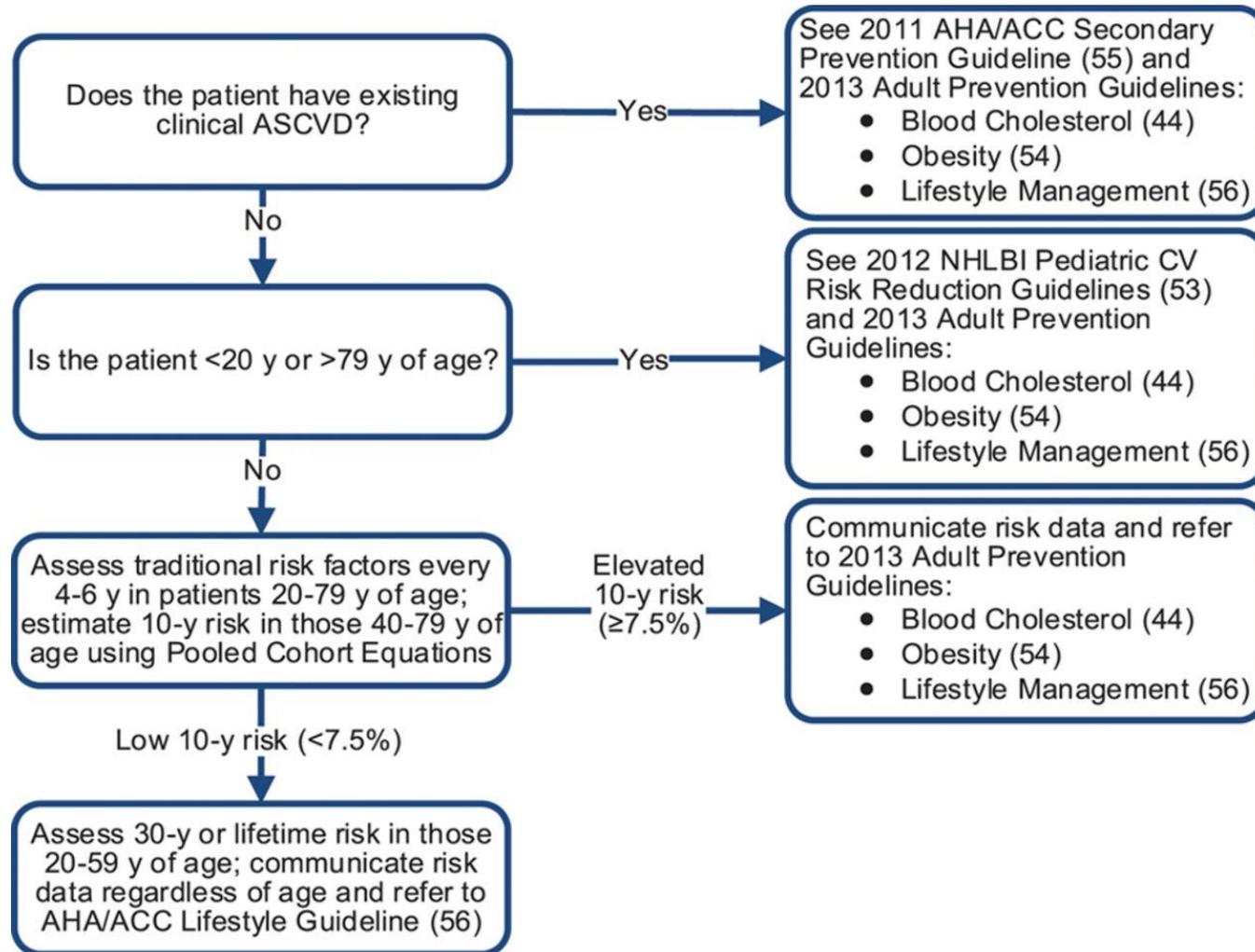
Neil J. Stone et al. *Circulation*. 2014;129:S1-S45

# Initiating Statin Therapy in Individuals Without Clinical ASCVD. Colors correspond to the Classes of Recommendation in Table 1. \*Fasting lipid panel preferred.



Neil J. Stone et al. *Circulation*. 2014;129:S1-S45

## Implementation of Risk Assessment Work Group Recommendations.



David C. Goff, Jr et al. *Circulation*. 2014;129:S49-S73

# High Blood Cholesterol – What to do

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- Focus on promotion of positive cardiovascular health as well as CVD prevention and treatment of established high cholesterol.
- Health behavior and health factor optimization should be emphasized
  - No smoking
  - Healthy eating
  - Adequate physical activity
  - Healthy BMI
  - Blood pressure
  - Cholesterol
  - Blood glucose
- Encourage discussions with personal physician to determine 10-year risk using AHA/ACC ASCVD risk estimator



## Review of Cholesterol Tools and Resources

*April Wallace, MHA, Program Manager  
Million Hearts® Collaboration  
American Heart Association*

# My Life Check™-Life's Simple 7 and Heart360 Patient Education and Self-Management



## My Life Check™

### HOW TO USE MY LIFE CHECK

#### STEP 1: Answer questions about your Simple 7

- Three measurements of your blood characteristics
- Four things you do every day that impact your health

#### STEP 2: Choose your action plan

- Compare your current Simple 7 with what is recommended for you
- Select the actions for your Simple 7 that are right for your health

#### STEP 3: Discover your heart score

- This number (0-10) is an indication of your overall cardiovascular health based on the information you've given.

#### STEP 4: Print or save your results

- #### STEP 5: Return periodically to take the assessment again
- Compare your results to measure your improvement

Life's Simple 7

- Blood Pressure
- Blood Cholesterol
- Blood Sugar
- Smoking Status
- Healthy Weight
- Physical Activity
- Healthy Diet

- What you need to know to use this health assessment
- AHA Privacy Policy
- Terms and Conditions

#### IDEAL HEART SCORE



If you can achieve an Excellent rating in all of the simple 7 areas, you will reach your "Ideal" cardiovascular health.

[Tell me more](#)

The screenshot shows the Heart360 patient portal. At the top, there are navigation tabs for Summary, Messages, Blood Pressure, Cholesterol, Blood Glucose, Medication, Weight, Physical Activity, and Reports. The main content area displays a blood pressure history graph with a summary of the patient's status. The summary indicates that the patient is not yet at a "Stroke Improvement" level and provides a list of actions to take, such as being more physically active, losing weight, and eating less sodium. Below the summary is a table of blood pressure readings.

Date (MM/DD)	Heart Rate	Systolic Pressure	Diastolic Pressure	Reading Source	Comments	Actions
11-01-10 14 PM	53	136	88	Heart360		
11-01-10 10 13 AM	87	108	75	Heart360		
09-14-10 10 30 AM	145	95	Heart360			
09-14-10 10 30 AM	142	90	Heart360			
08-15-10 10 30 AM	97	147	85	Heart360		

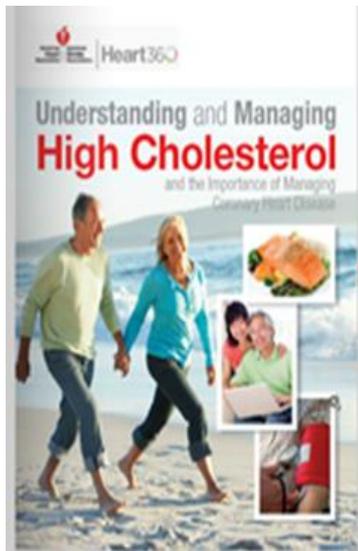
## The My Life Check™ assessment is integrated with Heart360.org

- Offers an easy-to-use provider portal where healthcare providers can directly connect with their patients to monitor and assist them to improve their health.

# Cholesterol Guide

## Interactive Cholesterol Guide

Find videos, quizzes, trackers and more with our interactive cholesterol guide. You'll learn about risk factors, treatment and measurement of cholesterol, along with helpful tips for daily living.



# ASCVD Risk Estimator



## 2013 Prevention Guidelines Tools CV RISK CALCULATOR

Estimator	Clinicians	Patients	About
<b>ASCVD Risk Estimator*</b>			
<b>10-Year ASCVD Risk</b>		<b>Lifetime ASCVD Risk</b>	
0.8% <small>calculated risk</small>		39% <small>calculated risk</small>	
0.4% <small>risk with optimal risk factors**</small>		8% <small>risk with optimal risk factors</small>	
<b>Recommendation Based On Calculation</b> ▶			
<b>Male</b> <b>Female</b>	40	<input type="radio"/> White	<p><i>Note: These estimates may underestimate the 10-year and lifetime risk for persons from some race/ethnic groups, especially American Indians, some Asian Americans (e.g., of south Asian ancestry), and some Hispanics (e.g., Puerto Ricans), and may overestimate the risk for others, including some Asian Americans (e.g., of east Asian ancestry) and some Hispanics (e.g., Mexican Americans).</i></p> <p><i>Because the primary use of these risk estimates is to facilitate the very important discussion regarding risk reduction through lifestyle change, the imprecision introduced is small enough to justify proceeding with lifestyle change counseling informed by these results.</i></p>
HDL - Cholesterol (mg/dL)	Total Cholesterol (mg/dL)	<input type="radio"/> African American	
65	275	<input checked="" type="radio"/> Other	
Treatment for Hypertension	Systolic Blood Pressure		
<b>Yes</b> <b>No</b>	130		
Smoker	Diabetes		
<b>Yes</b> <b>No</b>	<b>Yes</b> <b>No</b>		

# AHA Cholesterol Resources for Patients and Providers



## 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults.

E-Published on November 12, 2013, available at:

<http://circ.ahajournals.org/lookup/doi/10.1161/01.cir.0000437738.63853.7a>

### Downloadable Toolkit for Providers:

- [Pocket Guide](#) - Information about guidelines for treating patients with high cholesterol
- [Referral Pad](#) - Instructs patients on how to sign up for Heart360
- [Waiting Room Poster](#) - Encourages enrollment in Heart360
- [Quick Start Guide](#) - Shows you how to enroll in Heart360

# Other Educational Materials

## Cholesterol and Other Educational Brochures

Find links to cholesterol and other American Heart Association brochures.

<http://http://www.heart.org/HEARTORG/Conditions/Cholesterol>

## Downloadable Sheets

- Cholesterol Questions To Ask Your Doctor (PDF)
- What Are High Blood Cholesterol and Triglycerides? (PDF)
- How Can I Lower High Cholesterol? (PDF)
- What Is Cholesterol-Lowering Medicine? (PDF)
- How Can I Monitor My Cholesterol, Blood Pressure and Weight? (PDF)
- Downloadable Medicine Chart (PDF)



My Life Check®  
Live Better With Life's Simple 7™



**98.9** million Americans age 20 and older have total blood cholesterol levels of **200 mg/dL or higher.**

What can we do to control cholesterol?



**1 Understand Cholesterol Levels.**

The first step to controlling cholesterol is to understand where it comes from, what the levels mean and what the recommended level is for each kind to lower the risk of developing heart disease or stroke. [heart.org/CholesterolLevels](http://heart.org/CholesterolLevels)

Cholesterol comes from two sources: **our body** and **our food**. Cholesterol is only found in animal products.

**HDL Cholesterol = GOOD**   
High-density lipoprotein is known as "good" cholesterol.

**LDL Cholesterol = BAD**   
Low-density lipoprotein is known as "bad" cholesterol.

*HDL helps keep the LDL from sticking to our artery walls. This can aid in lowering the risk of developing atherosclerosis, which can lead to heart disease and stroke.*  
[heart.org/Atherosclerosis](http://heart.org/Atherosclerosis)

**TRIGLYCERIDES**  
This is a form of fat made in the body.

**TOTAL CHOLESTEROL**  
HDL plus LDL and 1/5<sup>th</sup> of triglyceride level = total cholesterol level.

*The most important things you can do to control your cholesterol are:  
\* Know your numbers, and discuss your risk with your physician*

## Other Educational Materials



### [Cholesterol Personal Stories](#)

Real patients share their experience and describe how they learned to live healthy and lower cholesterol.

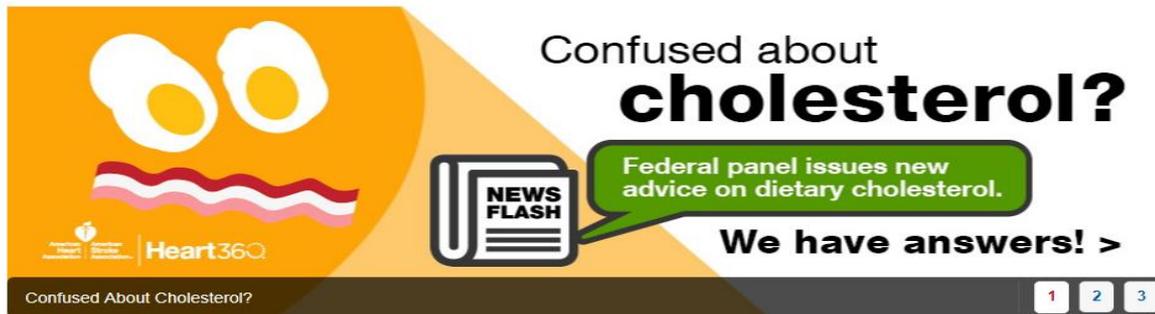
### [Recipes](#)

Discover how easy it is to avoid excess saturated and *trans* fat while enjoying mouth-watering dishes.

### [Healthy Living Resource Guide for All Seniors](#)

Any person of any age can make healthy changes. Our Resource Guide and exercise infographic will help you make smart choices as you and your loved ones look to maintain health and wellness.

# Questions about managing cholesterol?



Confused about **cholesterol?**

**Federal panel issues new advice on dietary cholesterol.**

**We have answers! >**

Confused About Cholesterol? 1 2 3

To learn more about cholesterol, browse any of the topics below.



#### About Cholesterol

Cholesterol itself isn't bad. We all have and need this wax-like substance in our bodies. Learn about the so-called "good" and "bad" cholesterol, where it comes from, and why it's important for your health.



#### Why Cholesterol Matters

High cholesterol is one of the major risk factors leading to heart disease, heart attack and stroke. Discover the reasons to keep your cholesterol controlled.



#### Understand Your Risk for Cholesterol

High cholesterol levels can run in families, and women generally tend to have higher levels of HDL than men. Find out more about who has high cholesterol, and discover why managing cholesterol is important even for children.



#### Symptoms, Diagnosis and Monitoring of Cholesterol

High cholesterol does not produce symptoms until significant damage has been done; blood testing is the only way to find out these important numbers. Know your levels and what they mean!



#### Prevention & Treatment of Cholesterol

You can lower your cholesterol and reduce your risk of heart disease and stroke. Take responsibility for managing your cholesterol levels with healthy lifestyle choices and a sound medical treatment plan when prescribed.



#### Cholesterol Tools & Resources

Learn more with our online tracking resources, downloadable information pages and personal stories from people like you.

<http://www.heart.org/Cholesterol>

# ASA/AHA Support Network



[www.heart.org/supportnetwork](http://www.heart.org/supportnetwork)

[www.strokeassociation/supportnetwork](http://www.strokeassociation/supportnetwork)

**Our support platform is dedicated to serving those who have experienced heart disease or stroke and their caregivers. It is designed for individuals, their families and caregivers to meet others, share their stories, and to find and give support.**

**Our support platform is dedicated to serving those who have experienced heart disease or stroke and their caregivers.**



**For more information on cholesterol management,  
visit:**

**<http://www.heart.org/Cholesterol>**





®

## Q & A



John M. Clymer, Executive Director  
National Forum for Heart Disease & Stroke Prevention  
Co-chair Million Hearts® Collaboration



®

## Closing Remarks

John M. Clymer, Executive Director  
National Forum for Heart Disease & Stroke Prevention  
Co-chair Million Hearts<sup>®</sup> Collaboration



**Thank You!**

For more information, please visit the CDC's Million Hearts® website at:  
[millionhearts.hhs.gov](http://millionhearts.hhs.gov)

or  
the AHA's Million Hearts® webpage at:  
[http://www.heart.org/HEARTORG/Advocate/American-Heart-Association-Million-Hearts UCM 463392 Article.jsp](http://www.heart.org/HEARTORG/Advocate/American-Heart-Association-Million-Hearts_UCM_463392_Article.jsp)