



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

November 21, 2014

12:30pm - 1:30pm ET

# Agenda

Time (ET)	Agenda Item / Topic	Speaker / Facilitator
12:30 – 12:35	Welcome and Introductions	Laura King Hahn, American Heart Association, Program Initiatives Manager, The Collaboration for Heart Disease and Stroke Prevention
12:35 – 12:40	Million Hearts® Description of the ABCS	Laura King Hahn, American Heart Association
12:40 – 1: 15	Controlling Cholesterol: Guidance for Use & Implications for Primary Care Practitioners	Dr. Neil J. Stone, MD, MACP, FAHA, FACC Northwestern University Feinberg School of Medicine  Chair, ACC/AHA Prevention Guideline 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines
1:15 – 1:25	Q and A	Laura King Hahn, American Heart Association
1:25 – 1:30	Final Remarks	Laura King Hahn, American Heart Association



## **Welcome & Introductions**

### **Million Hearts<sup>®</sup>**

### **Description of the ABCS**

Laura King Hahn, American Heart Association

Program Initiatives Manager

The Collaboration for Heart Disease and Stroke Prevention  
(Supporting the Million Hearts Initiative)

## 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®

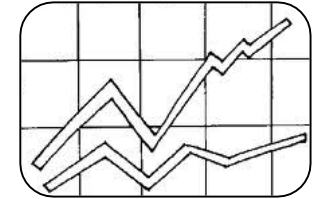
**Keeping Us Healthy**  
*Changing the environment*

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)	

# Health Disparities

- African-Americans develop high blood pressure more often, and at an earlier age, than whites and Hispanics do.
- African-Americans are nearly twice as likely as whites to die early from heart disease and stroke.
- American Indians and Alaska Natives die from heart diseases at younger ages than other racial and ethnic groups in the United States. 36% of those who die of heart disease die before age 65.

Source:

Go AS, Mozaffarian D, Roger VL, et al. [Heart disease and stroke statistics—2013 update: a report from the American Heart Association](#). *Circulation*. 2013;127:e6–245.

Morbidity and Mortality Weekly Report (MMWR): Vital Signs: Avoidable Deaths from Heart Disease, Stroke, and Hypertensive Disease — United States, 2001–2010

SS Oh, JB Croft, KJ Greenlund, C Ayala, ZJ Zheng, GA Mensah, WH Giles. Disparities in Premature Deaths from Heart Disease—50 States and the District of Columbia. *MMWR* 2004;53:121–25. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5306a2.htm>





# 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



## **What to Do About Cholesterol? Risk Assessment is the Start , not the End of the Risk Decision in Primary Prevention**

Neil J. Stone MD, MACP, FACC  
Bonow Professor of Medicine  
Feinberg School of Medicine  
Northwestern University  
Chicago, IL



# Disclosures

No relevant disclosures

I do not accept honoraria from pharmaceutical companies

I served as the chair of the **2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults**

# ACC/AHA Blood Cholesterol Guideline Panel Members

**Neil J. Stone, MD, MACP, FAHA, FACC, Chair**

**Jennifer G. Robinson, MD, MPH, FAHA, Vice Chair**

**Alice H. Lichtenstein, DSc, FAHA, Vice Chair**

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Glen Bennett, M.P.H.

Denise Simons-Morton, MD, PhD

**Stone NJ et al 2013 ACC-AHA Cholesterol Guidelines**

**JACC Vol. 63, No. 25, 2014**



# Synopsis of Recommendations

1. **Encourage adherence to a healthy lifestyle**
2. Statin therapy recommended for adult groups demonstrated to benefit
3. Statins have an acceptable margin of safety when used in properly selected individuals and appropriately monitored
4. Engage in a clinician-patient discussion before initiating statin therapy – especially for primary prevention in patients with lower ASCVD risk

Stone NJ, et al. *Ann Int Med.* 2014

# Guidelines Focus on Healthy Lifestyle

**Lifestyle guideline:** Healthy lifestyle (dietary patterns and physical activity) improves lipid and blood pressure risk factor levels

**Obesity guideline:** Lifestyle crucial for weight control



## **Risk assessment guideline:**

- Lifetime risk estimator for those 20-59 years
- Helps identify high lifetime but low 10 year ASCVD risk
- Explicitly **not** used to choose drug therapy
- To enhance clinicians focus on lifestyle and risk factor improvement as low risk individuals by age 50 do best.



# Lifetime Risk Estimator

- For those 20-59 years, it provides lifetime risk estimate
- This is intended to drive discussions of greater adherence to heart-healthy lifestyle

Estimator	Clinicians	Patients	About		
<b>ASCVD Risk Estimator*</b>					
<b>10-Year ASCVD Risk</b>  This calculator only provides 10-year risk estimates for individuals 40 to 79 years of age.		<b>Lifetime ASCVD Risk</b> <b>50%</b> calculated risk <b>5%</b> risk with optimal risk factors			
Gender	<input checked="" type="radio"/> M <input type="radio"/> F	Age	<input type="text" value="35"/>		
Race	<input checked="" type="radio"/> White <input type="radio"/> African American <input type="radio"/> Other	 <b>Note:</b> 10-year risk is only calculated for the 40 to 79 year range	Total Cholesterol (mg/dL)	<input type="text" value="220"/>	
Systolic Blood Pressure	<input type="text" value="130"/>	HDL - Cholesterol (mg/dL)	<input type="text" value="38"/>	Treatment for Hypertension	<input type="radio"/> Y <input checked="" type="radio"/> N
Diabetes	<input type="radio"/> Y <input checked="" type="radio"/> N	Smoker	<input checked="" type="radio"/> Y <input type="radio"/> N		

\*Intended for use if there is not ASCVD and the LDL-cholesterol is <190 mg/dl

# Synopsis of Recommendations

1. Encourage adherence to a healthy lifestyle
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Stone NJ, et al. *Ann Int Med.* 2014

# Statin Benefit Groups

**Secondary  
Prevention**

**Diabetes – 40 to 75 yrs  
LDL-C 70-189 mg/dl**

**LDL-C  $\geq$  190 mg/dL**

Rx: Optimal benefit with high intensity statins  $\rightarrow$  lower LDL-C  $\geq$  50%  
Use moderate intensity if age  $>75$  or can't tolerate high intensity

## Primary Prevention –

**40 to 75 yrs**

**LDL-C 70-189 mg/dl**

**ASCVD Risk  $\geq$  7.5 %**

Rx: Moderate intensity  
or high intensity statin

**Statin Rx not automatic,  
requires clinician-patient  
discussion**

# Primary Prevention Statin Therapy

- Thresholds for initiating statin therapy derived from 3 exclusively primary prevention RCTs
  - Placebo group- 10 yr event rates:  
JUPITER – 7.6%;  
AFCAPS-TEXCAPS 6.9%  
MEGA 5.1%;

## Guideline Panel's Recommendation:

- As a matter of caution, to avoid over-treating, the Panel identified those with risk  $\geq 7.5\%$  as a group in which statins provide benefit.

# Clinician - Patient Discussion Before Statin Rx Especially Primary Prevention

✓ Estimate 10 yr  
ASCVD Risk Review other risk  
factors & risk factor control

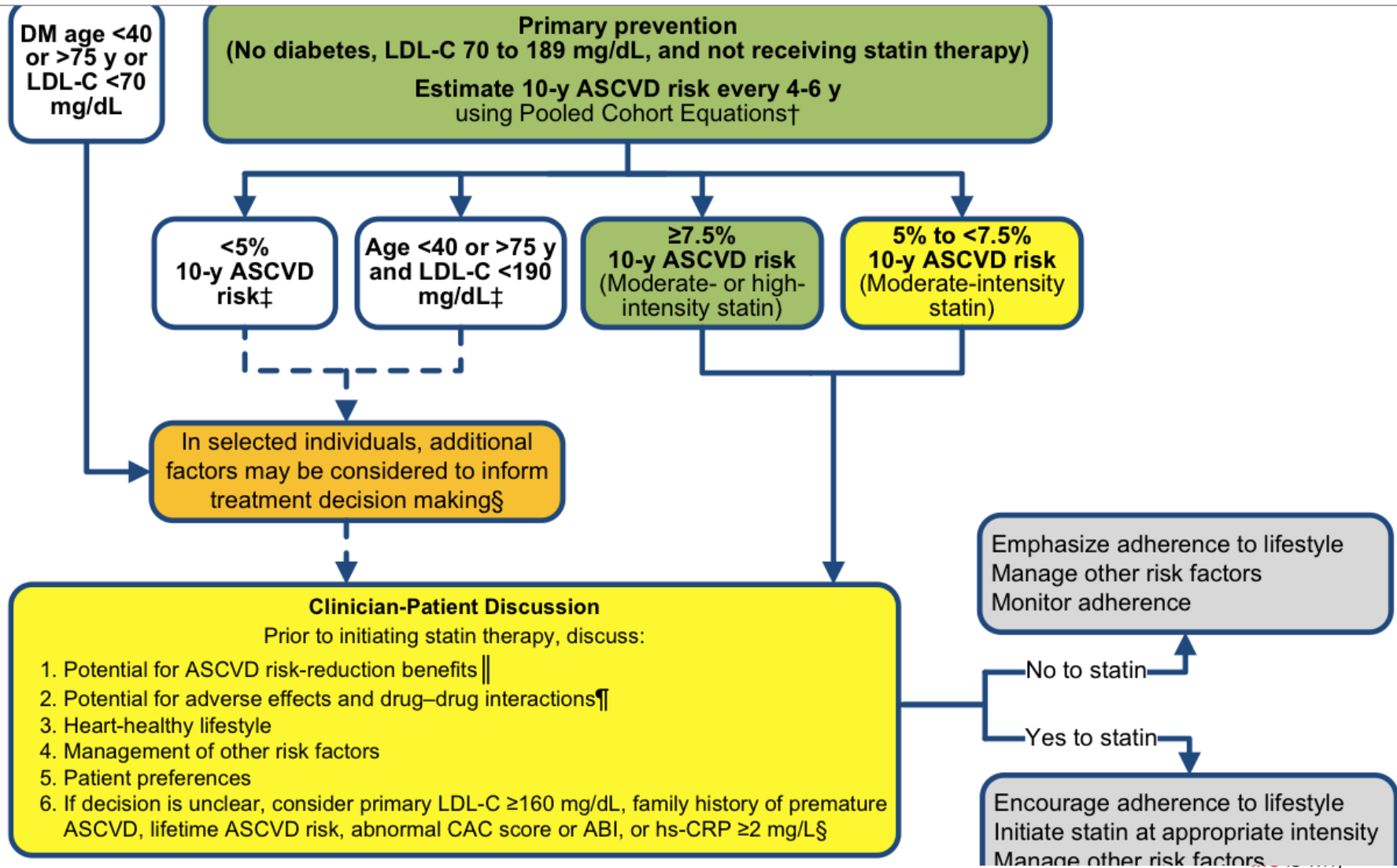
✓ Review potential for benefit  
from heart-healthy lifestyle

✓ Review potential for  
- benefit from statins and  
potential for adverse effects  
& drug-drug interactions

✓ Patient Preferences

\*Factors if risk decision uncertain that improve calibration,  
discrimination, and reclassification  
Family hx premature ASCVD;  
hs-CRP  $\geq 2$ ,  
CAC score  $\geq 300$  or 75<sup>th</sup>%  
ABI  $< 0.9$ ;

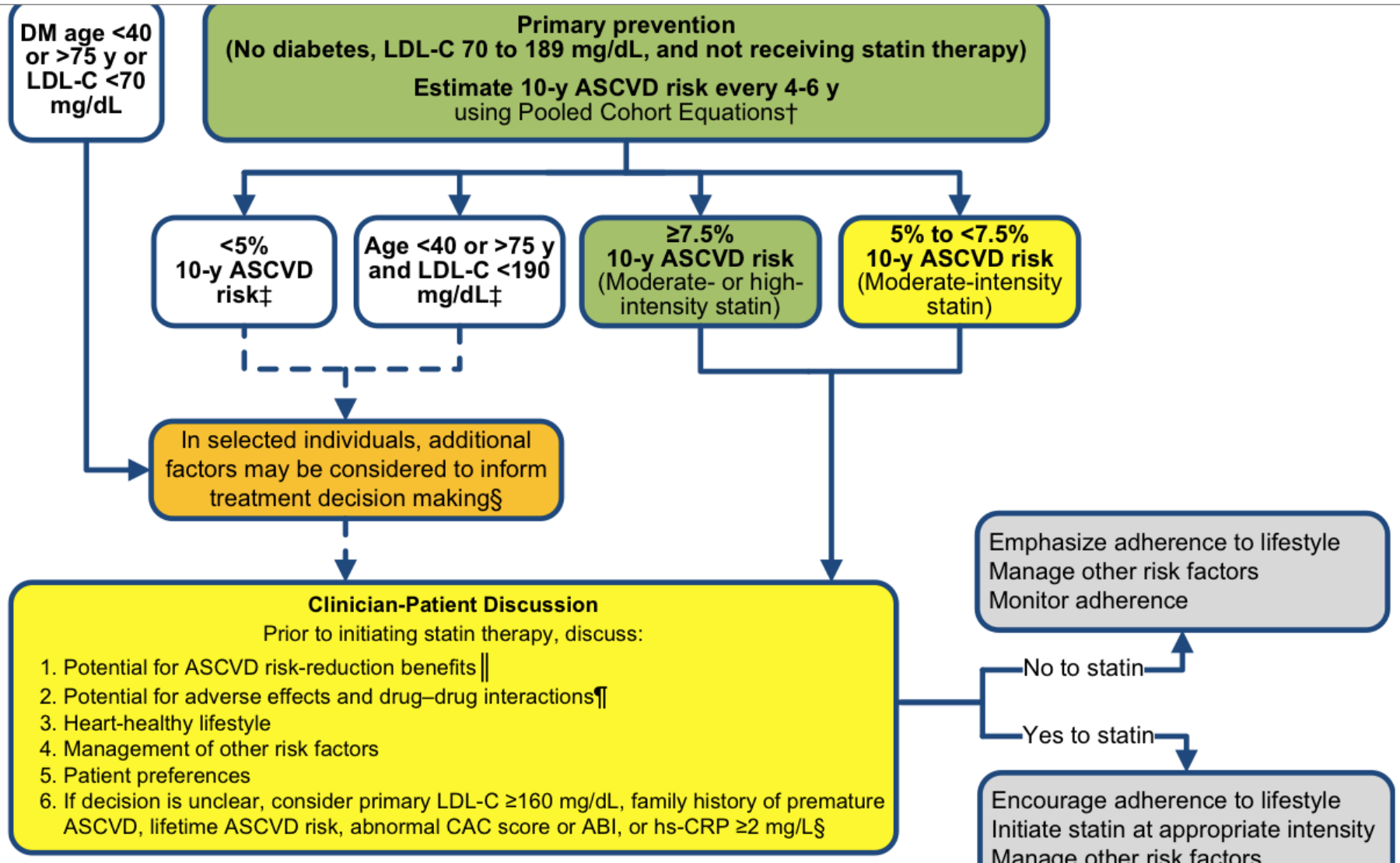
# Clinician - Patient Discussion Before Statin Rx in Primary Prevention



# The Risk Decision in Young Adults

- 36 yo man with family history of premature CAD & LDL-C 180 mg/dL
  - Too young for the 10 year ASCVD risk estimation
  - Guidelines clearly show → family history of premature CHD and LDL-C of  $\geq 160$  mg/dL informs the treatment decision re statin
  - Statin therapy would be reasonable after a risk discussion
    - u reviewing potential for benefit
    - u potential for adverse effects
    - u drug-drug interactions &
    - u patient preference

# Clinician - Patient Discussion Before Statin Rx in Primary Prevention

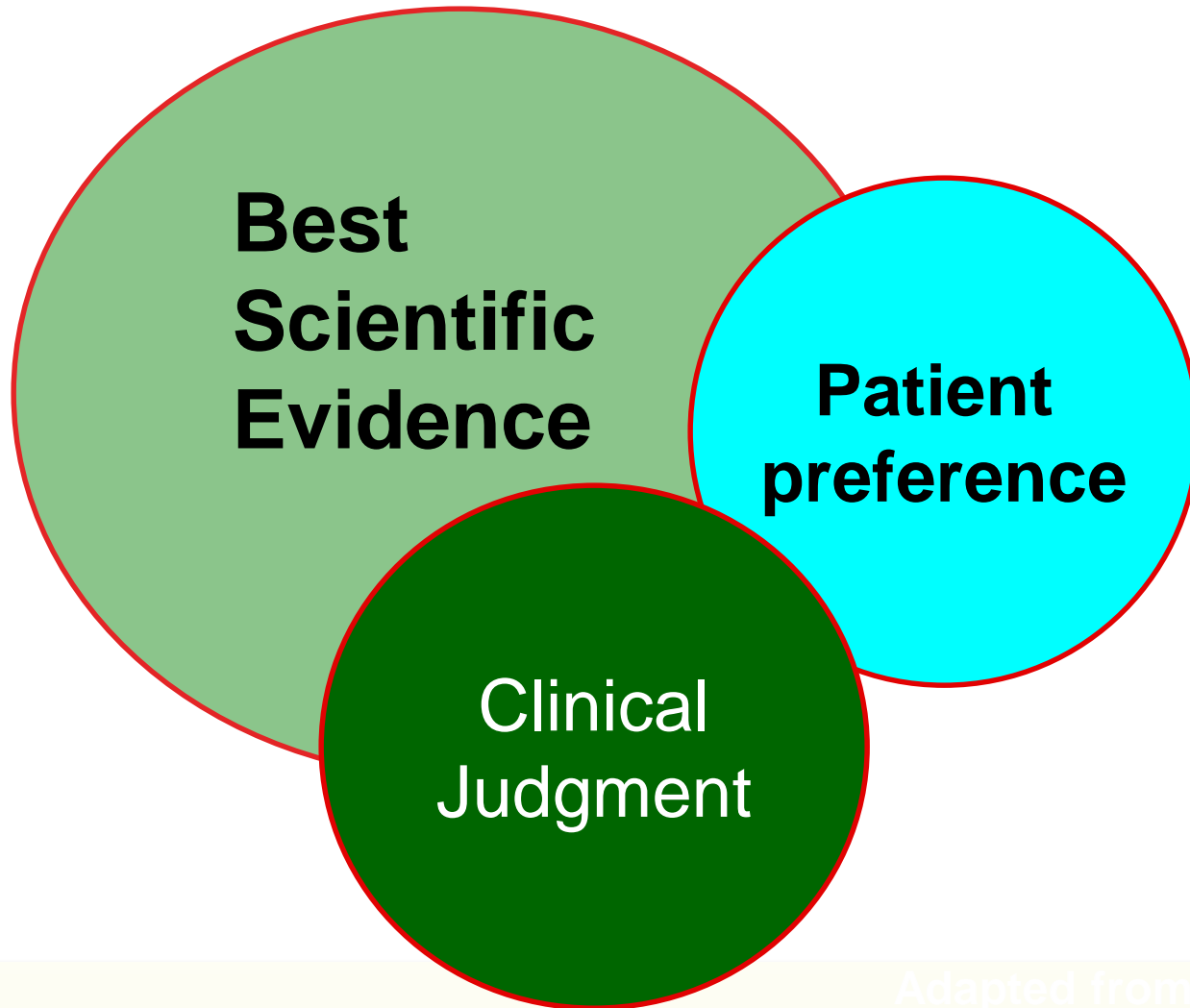




# The Risk Decision in Older Adults


- 68 yo white man with average risk factors and estimated 10 year ASCVD risk of >7.5%
- Merits a risk discussion to consider adherence to optimal lifestyle, potential for benefit, potential for adverse effects, drug-drug interactions and informed patient preference
- If clinician felt risk decision uncertain, could order: CAC score, hs-CRP or ABI

# Evidence Based To Inform Risk Decisions



American American


Adapted from Dr. Sanjay  
Kaul with permission



“Clinician judgment is especially important for several patient groups for which the RCT evidence is insufficient for guiding clinical recommendations.

These patient groups include younger adults (<40 years of age) who have a low estimated 10-year ASCVD risk but a high lifetime ASCVD risk based on single strong factors or multiple risk factors.

Stone NJ et al 2013 Cholesterol Guidelines JACC Vol. 63, No. 25, 2014



“Other groups include those with serious comorbidities & increased ASCVD risk

(e.g., individuals with HIV or rheumatologic or inflammatory diseases, or who have undergone a solid organ transplantation).

This guideline encourages clinicians to use clinical judgment in these situations, weighing potential benefits, adverse effects, drug–drug interactions, and consider patient preferences.”`

Stone NJ et al 2013 Cholesterol Guidelines JACC Vol. 63, No. 25, 2014

# Synopsis of Recommendations

5. **Use the newly developed pooled cohort equations for estimation 10-year ASCVD risk**
6. Initiate proper intensity of statin therapy
7. Evidence is inadequate to support treatment to specific LDL-C or non-HDL-C goals
8. Regularly monitor patients for adherence to lifestyle and statin therapy

Stone NJ, et al. *Ann Int Med.* 2014

# Validation of the Atherosclerotic Cardiovascular Disease Pooled Cohort Risk Equations

Paul Muntner, PhD; Lisandro D. Colantonio, MD; Mary Cushman, MD; David C. Goff Jr, MD, PhD; George Howard, DrPh; Virginia J. Howard, PhD; Brett Kissela, MD, MS; Emily B. Levitan, ScD; Donald M. Lloyd-Jones, MD, ScM; Monika M. Safford, MD

**IMPORTANCE** The American College of Cardiology/American Heart Association Pooled Cohort risk equations were developed to estimate atherosclerotic cardiovascular disease (CVD) risk and guide statin initiation.

**OBJECTIVE** To assess calibration and discrimination of the Pooled Cohort risk equations in a contemporary US population.

**DESIGN, SETTING, AND PARTICIPANTS** Adults aged 45 to 79 years enrolled in the Geographic and Racial Differences in Stroke (REGARDS) study between October 2007 and followed up through December 2010. We studied participants with atherosclerotic CVD risk may trigger a discussion of statin initiation (those with atherosclerotic CVD or diabetes, low-density lipoprotein cholesterol level  $\geq 189$  mg/dL, and not taking statins; n = 10 997).

**MAIN OUTCOMES AND MEASURES** Predicted risk and observed adjudicated atherosclerotic CVD incidence (nonfatal myocardial infarction, coronary heart disease or fatal stroke) at 5 years because REGARDS participants have not been followed for 5 years. Additional analyses, limited to Medicare beneficiaries (n = 3333) identified in Medicare claims data.

**RESULTS** There were 338 adjudicated events (192 CHD events, 146 stroke events) and predicted 5-year atherosclerotic CVD incidence per 1000 person-years

with a 10-year predicted atherosclerotic CVD risk of less than 5% was 1.9 (95% CI, 1.3-2.7) and 1.9, respectively, risk of 5% to less than 7.5% was 4.8 (95% CI, 3.4-6.7) and 4.8, risk of 7.5% to less than 10% was 6.1 (95% CI, 4.4-8.6) and 6.9, and risk of 10% or greater was 12.0 (95% CI, 10.6-13.6) and 15.1 (Hosmer-Lemeshow  $\chi^2 = 10.0$ , P = .01). The C-index was 0.73 (95% CI, 0.71-0.75).

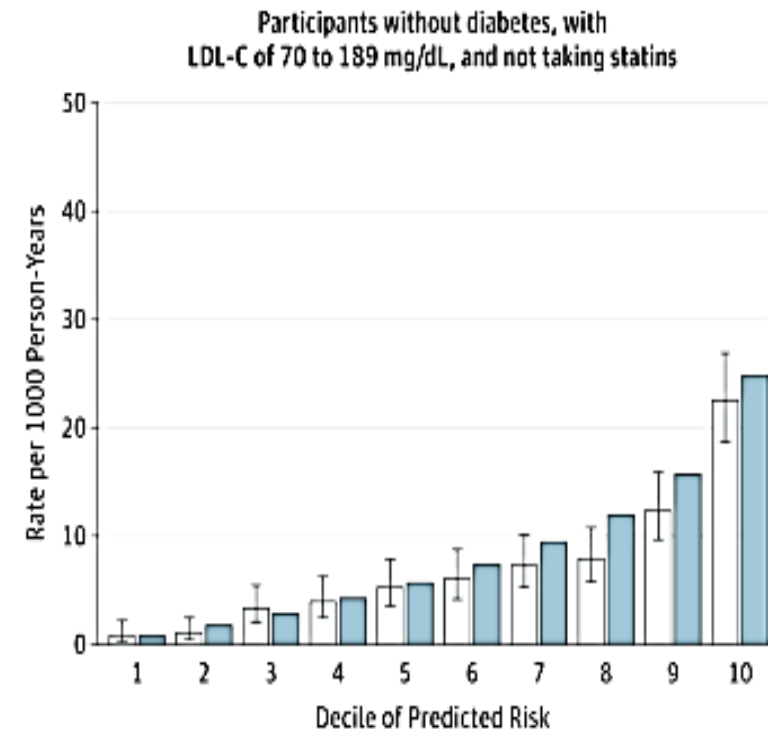
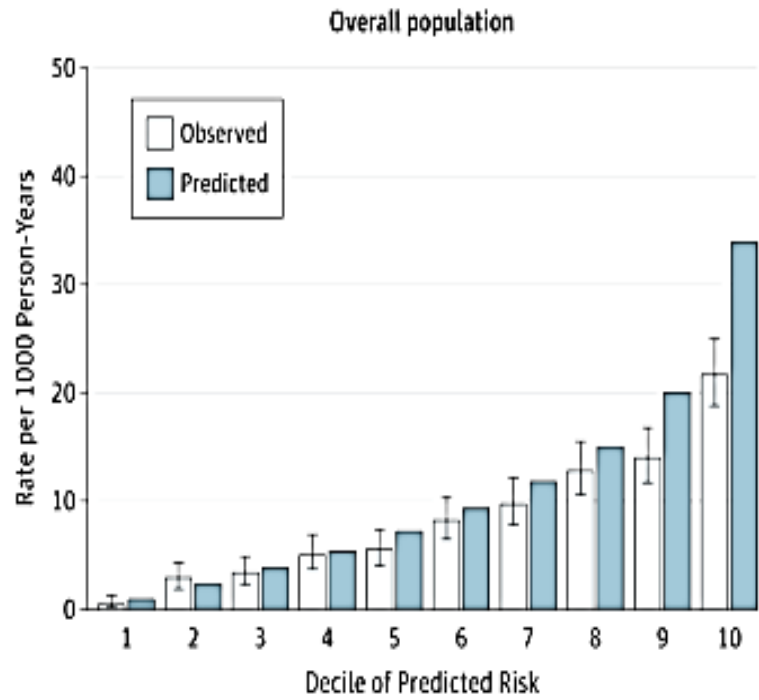
In this cohort of US adults for whom statin initiation may be considered based on the ACC/AHA Pooled Cohort risk equations

- observed and predicted 5-year atherosclerotic CVD risks were similar
- indicating that these risk equations were well calibrated in the population for which they were designed to be used,
- demonstrated moderate to good discrimination.

Muntner et al. JAMA March 2014

# Pooled Cohort Equations: External Validation in ReGARDS Population

All REGARDS participants



Mean predicted risk, % <sup>a</sup>	1.4	3.2	5.1	7.0	9.2	11.5	14.5	18.1	23.4	34.4
No. of events	4	23	27	40	42	68	78	104	110	178
No. of participants	1849	1850	1850	1850	1850	1850	1850	1850	1850	1849

Mean predicted risk, % <sup>a</sup>	1.1	2.5	3.9	5.6	7.4	9.4	11.8	14.6	18.6	26.3
No. of events	4	6	16	18	25	28	36	38	60	107
No. of participants	1099	1100	1100	1100	1099	1100	1100	1100	1100	1099

Muntner P, et al. JAMA 2014; 311:1406-1415.



# For Some Groups Pooled Cohort Equations Overestimate or Underestimate ASCVD Risk

1. Overestimation in high socioeconomic status (SES) healthy volunteers for clinical trials

Claim based on analyses of Women's Health Study, Physician's Health Study, Women's Health Initiative Observational Study

- **Risk factor levels were self-reported in these studies**
- **The participants in these studies (esp. PHS) were not broadly representative of the US population**

2. Underestimation in South Asians

Both of these are examples where the risk discussion allows the needed calibration

Ridker PM and Cook NR. Lancet 2013; 382:1762-1765; Cook, Rider, JAMA Internal Medicine October 2014

\*\*Hlatky MA et al. Circulation: Cardiovasc Qual Outcomes. 2014; 7:157-162

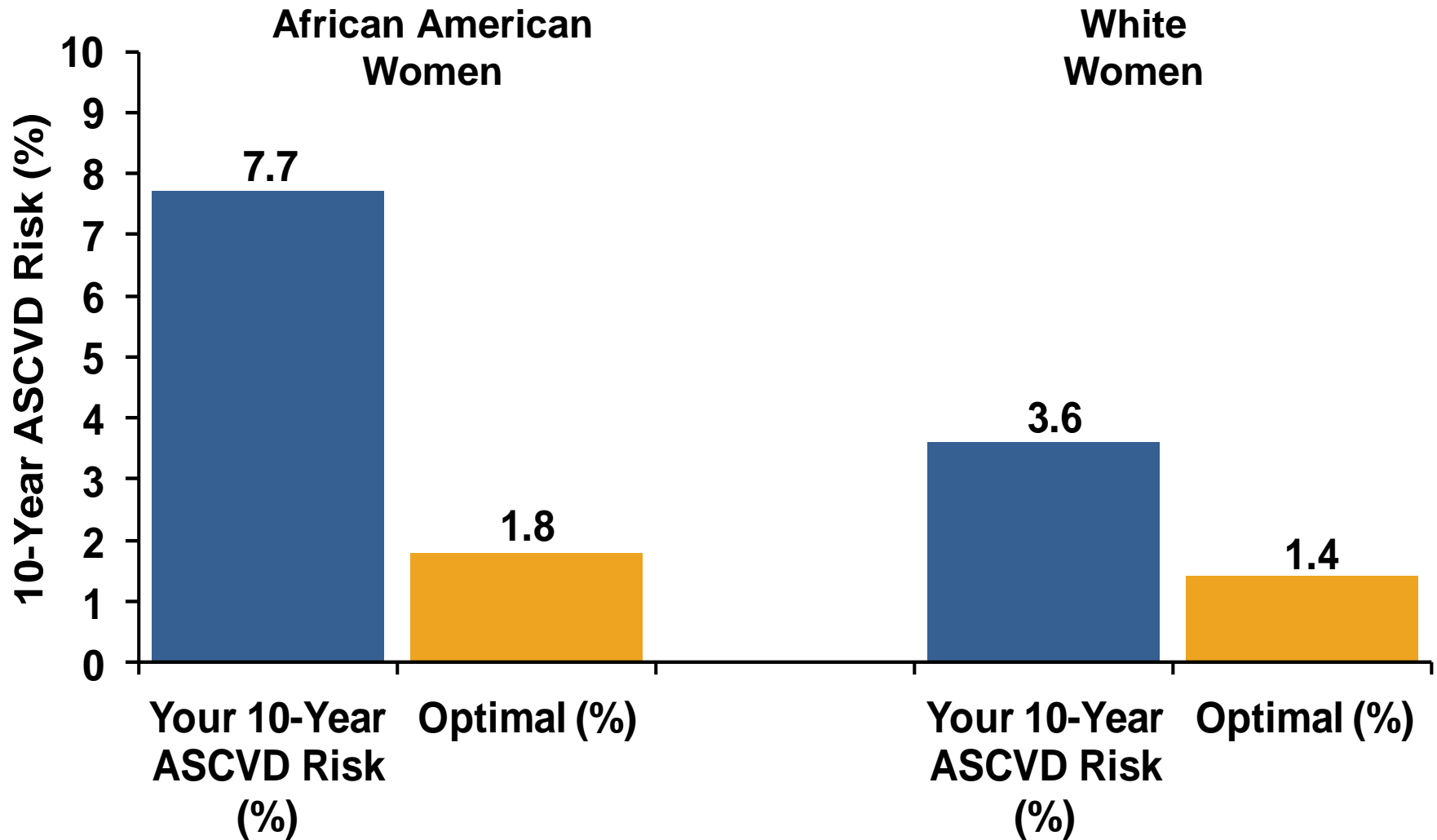


# ASCVD Risk Calculator Pooled Cohort Equations

Risk Factor	Units	Value	Acceptable range of values	Optimal values
<b>Sex</b>	M or F	<b>F</b>	M or F	
<b>Age</b>	years	<b>55</b>	20-79	
<b>Race</b>	AA or WH	<b>AA</b>	AA or WH	
<b>Total Cholesterol</b>	mg/dL	<b>210</b>	130-320	170
<b>HDL-Cholesterol</b>	mg/dL	<b>56</b>	20-100	50
<b>Systolic Blood Pressure</b>	mm Hg	<b>145</b>	90-200	110
<b>Treatment for High Blood Pressure</b>	Y or N	<b>Y</b>	Y or N	N
<b>Diabetes</b>	Y or N	<b>N</b>	Y or N	N
<b>Smoker</b>	Y or N	<b>N</b>	Y or N	N

# ASCVD Risk Calculator

## 55 yo AA and White Women



# Accuracy of Statin Assignment Using the 2013 AHA/ACC Cholesterol Guideline Versus the 2001 NCEP ATP III Guideline

## Correlation With Atherosclerotic Plaque Imaging



Kevin M. Johnson, MD,\* David A. Dowe, MD†

### ABSTRACT

**BACKGROUND** Accurate assignment of statin therapy is a major public health issue.

**OBJECTIVES** The American Heart Association and the American College of Cardiology released a new guideline on the assessment of cardiovascular risk (GACR) to replace the 2001 National Cholesterol Education Program (NCEP) Adult Treatment Panel III recommendations. The aim of this study was to determine which method more accurately assigns statins to patients with features of coronary imaging known to have predictive value for cardiovascular events and whether more patients would be assigned to statins under the new method.

**METHODS** The burden of coronary atherosclerosis on computed tomography angiography was measured in several ways on the basis of a 16-segment model. Whether to assign a given patient to statin therapy was compared between the NCEP and GACR guidelines.

# Current Guidelines Identify Plaque Burden More Accurately

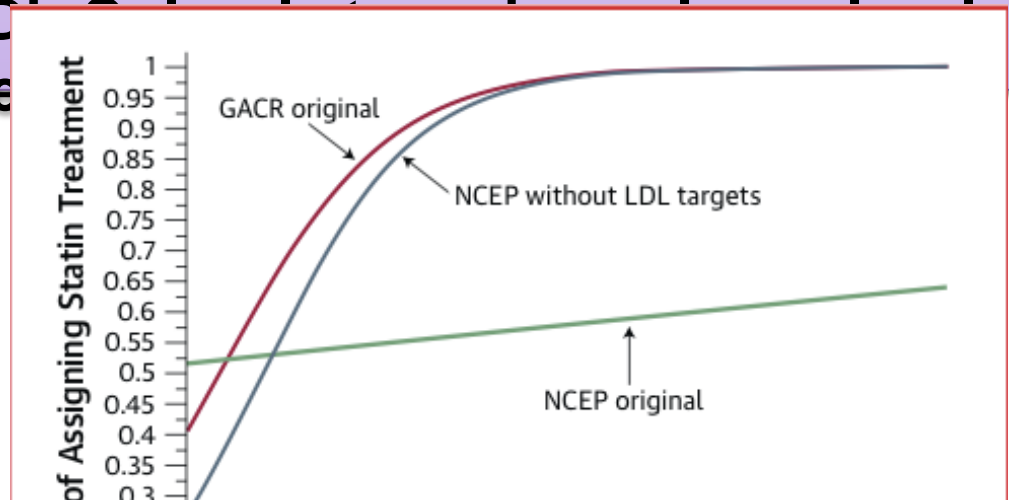
Population: 3,076 subjects; 65.3% men mean age 55; women 59; >90% white

At time of imaging 44% not on statins

Probability of statin Rx rose sharply with increasing plaque burden with Guideline on Risk Assessment estimation of risk (GACR)

The GACR assigned fewer patients with no plaque to statins & more patients with heavy plaque to statins.

The correlation of serum LDL-C with plaque burden is essentially zero. Targets developed for patients with no plaque to statin therapy.



# Application of New Cholesterol Guidelines to a Population-Based Sample

Michael J. Pencina, Ph.D.  
Ralph B. D'Agostino, Ph.D.  
Allan D. Sniderman, M.D.

**More adults eligible for statin treatment under the new ACC/AHA guideline:**

**Statins: 43 million (37.5%) → 56 million (48.6%)**

Those who were reclassified upward as contrasted to those reclassified downward:

- 1) older
- 2) more men
- 3) higher systolic blood pressure,
- 4) had a significantly lower level of LDL-C
- 5) higher rate of obesity.

## BACKGROUND

The 2013 guidelines of the American Heart Association (ACC–AHA) for the treatment of cholesterol with statin therapy for the prevention of cardiovascular disease

## METHODS

Using data from the National Health and Medical Examination Survey (NHANES) 2010, we estimated the number, and characteristics, of U.S. adults who would be recommended (i.e., eligible) for statin therapy under the new guidelines, as compared with the 2001 guidelines (ATP III) of the National Cholesterol Education Program. The population was 115.4 million U.S. adults.

## RESULTS

As compared with the ATP-III guidelines, the number of U.S. adults who are recommended for statin therapy from 43.2 million (37.5%) to 56 million (48.6%). The increase in the number of U.S. adults who would occur among adults without cardio-

**Pencina et al NEJM 2014**

# New Guidelines Efficiently Choose Additional Individuals to Get Statin Rx (Dallas Heart Study)

**Table. Additional Statin Eligibility and ASCVD Event Rates Among Newly Statin Eligible Individuals**

Outcome	Additional Statin Eligibility*	Event Rate Among Newly Statin Eligible	NNT Among Newly Statin Eligible†
Primary analysis			
ASCVD	4.8%	15.8%	14–21
CHD	4.8%	11.7%	19–29
ATPIII statin eligibility determined by optional cholesterol goals			
ASCVD	–2.8%	15.7%	14–21
CHD	–2.8%	12.4%	18–27
Restricting to individuals aged ≥40 years			
ASCVD	9.0%	15.8%	14–21
CHD	9.0%	11.6%	19–29

# Risk of New Diagnosis of DM with statins depends on

- **Statin intensity (ACC-AHA Guidelines 2013)**
  - 1 in 1000 cases for moderate
  - 3 in 1000 cases for high intensity
- **Number of DM Risk factors**
  - 4 diabetes risk factors: **BMI  $\geq$  30; FBS  $\geq$  100; A1c  $\geq$  6.0%, Metabolic risk factors (Ridker P et al. *Lancet* 2012; 380: 565–71)**
  - **New onset DM (NODM) risk** -Atorvastatin 80 mg/d v less intense statin Rx
    - No increase if 0 to 1 NOD risk factors
    - 24%, increase if 2 to 4 NOD risk factors.
    - **The number of CV events was significantly reduced with atorvastatin 80 mg in both NOD risk groups. ( Waters et al J Am Coll Cardiol 2013)**
- **One year change in body weight** as in TNT trial (Ong K-L et al. (*Am J Cardiol* 2014;113:1593e1598)

**Statins accelerated the average time to diagnosis of diabetes by 5.4 weeks as those on placebo**

# Guidelines as easy as ABC....

**Always encourage adherence to lifestyle** (even if receives a statin)

**Bring practice close to the RCT evidence:**

No arbitrary fixed LDL-C or non HDL-C goals

Data supports **appropriate intensity of statins** for higher ASCVD risk groups in whom statins shown to benefit:

**Secondary prevention, Primary LDL-C $\geq$ 190 mg/dl; Diabetes 40-75 yrs**

**Choose Risk Estimator** to estimate lifetime and 10 year risk with ASCVD risk estimator in primary prevention. It provides useful decision support. Not for those on treatment already.

**Discuss attention to risk factor control, lifestyle, potential for benefit as well as adverse effects, drug-drug interactions and patient preference in a clinician-patient risk discussion.** This precedes statin Rx in primary prevention. ***Statin Rx not automatic!!***



# Guidelines as easy as ABC....

**Evaluate** additional factors that can inform the risk discussion. Factors chosen if they improved discrimination, calibration, & reclassification of the risk assessment (not arbitrary)

1. **Family history of premature ASCVD**
2. **CAC score  $\geq 300$  or  $\geq 75^{\text{th}}$ %**
3. **hs-CRP  $\geq 2.0$  mg/L**
4. **ABI  $< 0.9$**
5. **May use a primary elevation of LDL-C  $\geq 160$  mg/dl**
6. **Use lifetime risk estimation in those 20-59 to enhance discussion of need for more optimal lifestyle to improve entire risk profile.**

**Follow-up** needed to evaluate adherence to therapy, adequacy of treatment effect achieved with follow-up lipids/safety checks

**Give consideration** to “proven” non-statin in “high risk” groups →  
--LDL-C  $\geq 190$  mg/dl secondary prevention, high risk DM

# Relevant 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>

## [Understanding and Managing Cholesterol](#)

– Interactive guide including quizzes, videos and more to help patients manage their cholesterol.

## **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





## Questions & Answers

Laura King Hahn, American Heart Association  
Neil J. Stone, MD, Northwestern University Feinberg  
School of Medicine



**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)