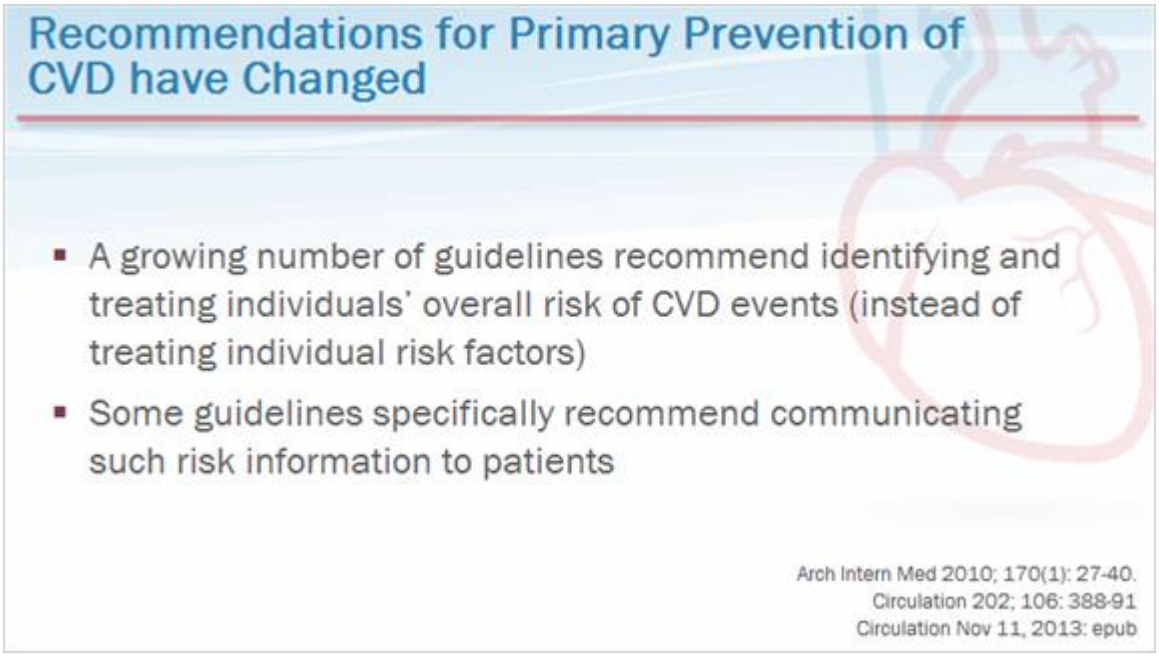
Calculating Risk for Primary Prevention of Cardiovascular Disease (CVD)

2. Welcome by Stacey Sheridan, MD, MPH

Hello. My name is Stacey Sheridan, and I'm here as your partner in Heart Health Now. The North Carolina cooperative for the Evidence Now Project. In our time together today we'll be talking about calculating risks for primary prevention of cardiovascular disease including why, when, and how to do it. Before we begin, I'd like to acknowledge our collaborators across the state of North Carolina and also our funder, the US Agency for Healthcare Research and Quality. And, finally, the members of the evidence team who have brought together the evidence that I'll share with you today.

3. Recommendations for Primary Prevention of CVD have Changed



As I'm sure you know, recommendations for primary prevention of cardiovascular disease have changed. A growing number of guidelines recommend identifying and treating individuals' overall risk of cardiovascular disease events instead of treating individual risk factors. And some guidelines specifically recommend communicating such risk information to patients.

4. As a result, providers need to develop a thorough understanding of a risk-based approach:

As a result, providers need to develop a thorough understanding of the risk-based approach including why, when, and how to do it.

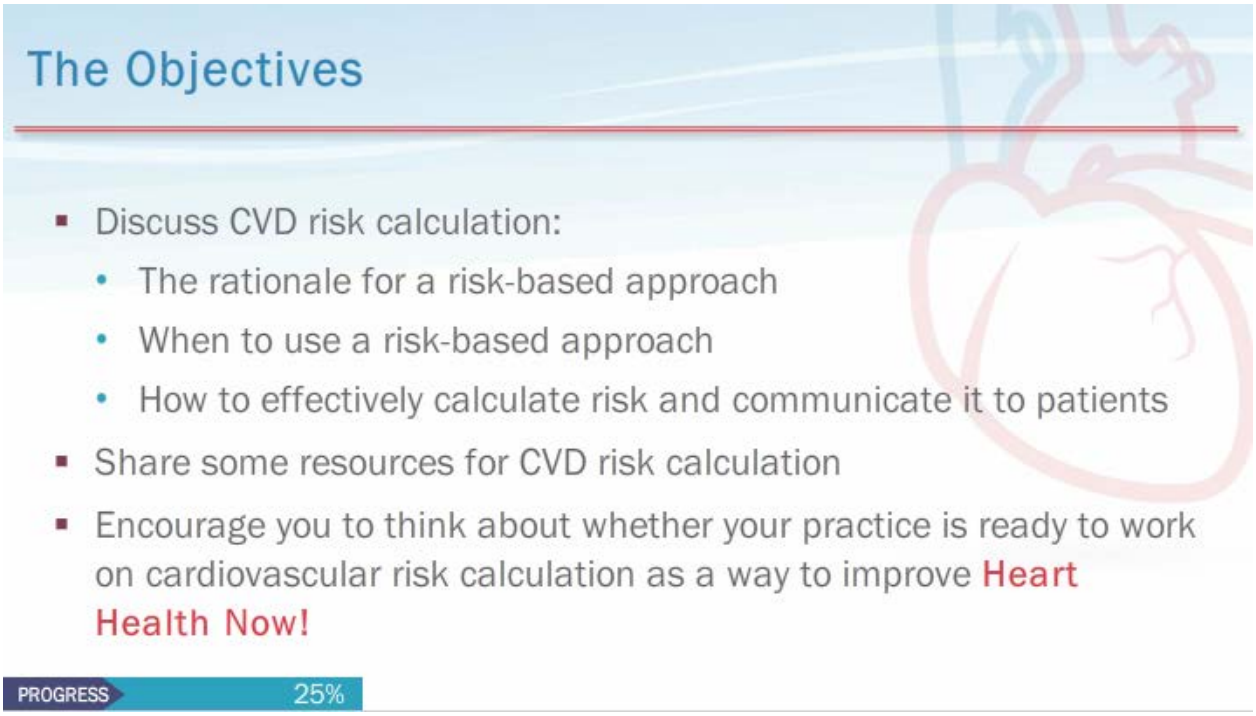
5. Consider….

Consider a 65-year-old man in good health who presents for care. He's concerned about cardiovascular disease and wants to know what can be done to reduce his risks. He has no diabetes. He's a nonsmoker and has no family history of cardiovascular disease. His blood pressure is 139/82. His total cholesterol is 220 mg/dl. His HDL 41 mg/dl. And his LDL 145 mg/dl. He eats a healthy diet and likes to walk. He is on no medicines. How would you approach his care? Would you calculate his risks? If so, why and how? And if not, why not? Take a minute and think about that.

6. Now Consider Your Practice...

Now consider your practice. How does your practice approach cardiovascular disease risk? Do you, as a group, routinely calculate cardiovascular risks? If so, what risks? And with what calculator? Do you have a system for monitoring and tracking cardiovascular disease risk, communicating risks to patients? If not, why not?

7. The Objectives



So, the objectives for this session were to discuss cardiovascular risk calculation, the rationale for risk-based approach, when to use a risk-based approach, and how to effectively calculate risks and communicate it to patients. We'll also share some resources for cardiovascular risk calculation and encourage you to think about whether your practice is ready to work on cardiovascular risk calculation as a way to improve Heart Health Now.

8. Why Use a Risk-based Approach?

So, why use a risk-based approach?

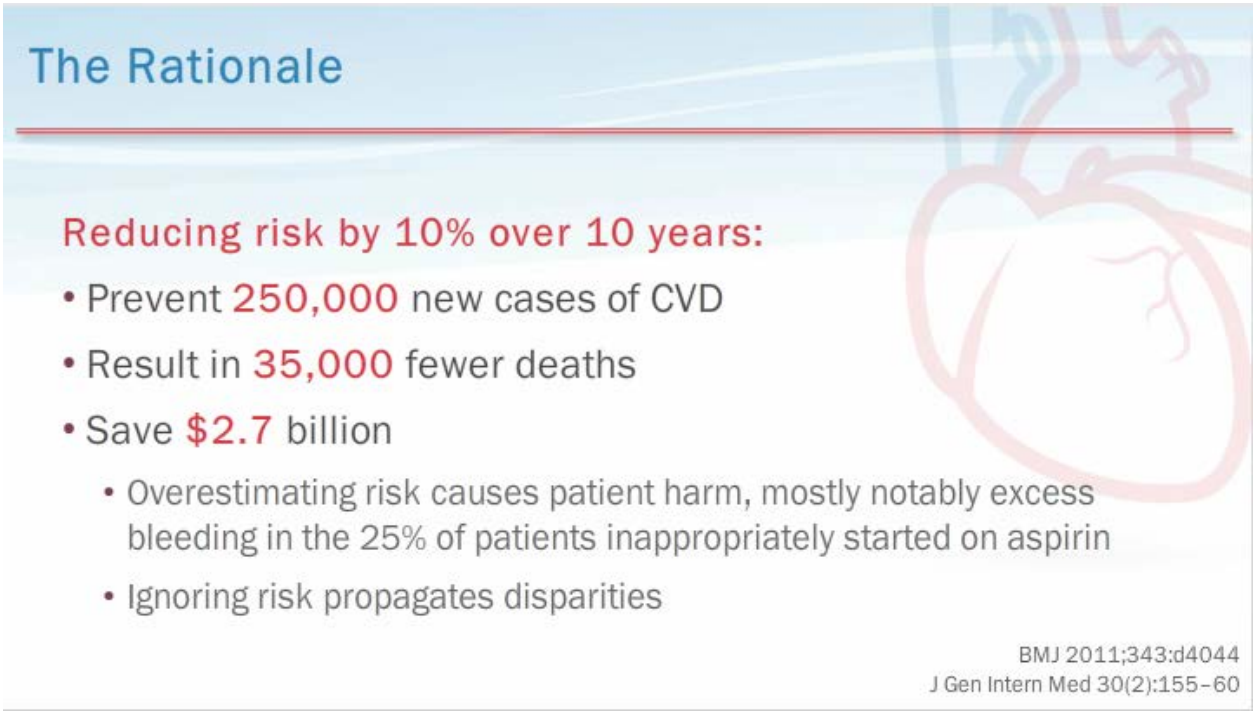
9. The Rationale

Well, it places the focus on the right goal: Reducing cardiovascular disease events. It predicts events better than counting of risk factors, and it allows targeting of therapy to those most in need of prevention, those who are at highest risk.

10. The Rationale

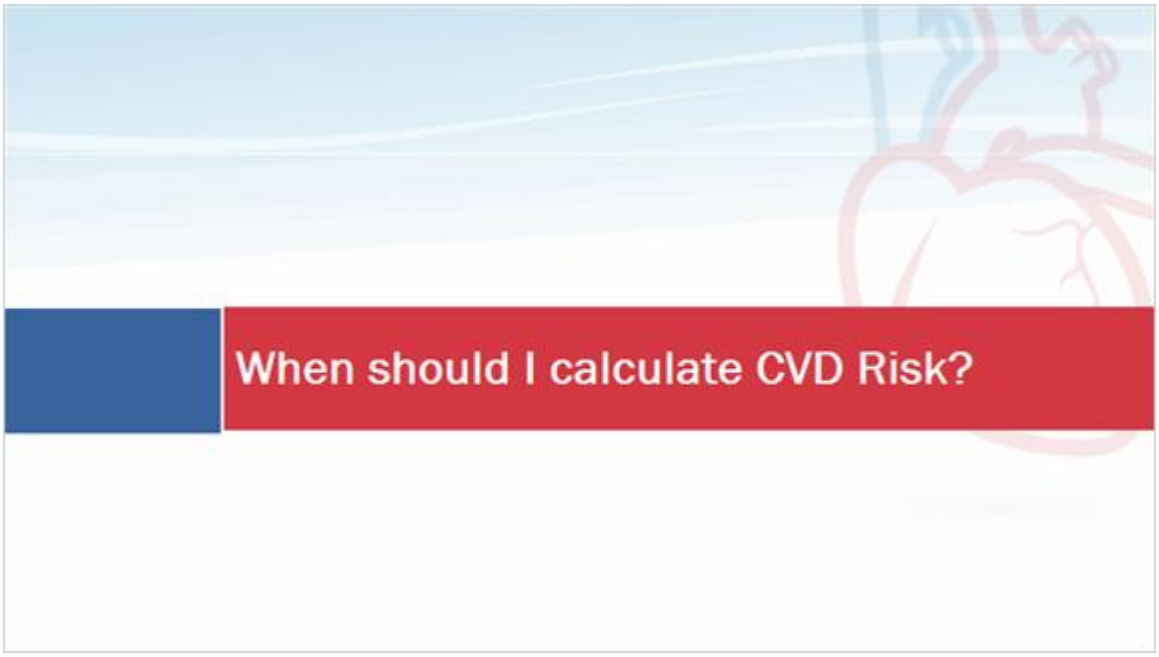
It is also more cost-effective than other approaches such as using electron beam CT for coronary artery calcium, and when communicated to providers and patients, it improves outcomes.

11. The Rationale



And if that's not enough, ignoring this calculation is costly for both patients and the healthcare system. Reducing risks by a relative 10 percent across a general population of patients over 10 years has been estimated to prevent 250,000 new cases of cardiovascular disease to result in 35,000 fewer deaths and to save $2.7 billion. Further, overestimating risks causes patients harm. Most notably, excess bleeding in the 25-percent of patients inappropriately started on aspirin. Ignoring risks also propagates disparities. All of these reasons make a compelling case for considering cardiovascular risk estimation as a strategy for cardiovascular disease prevention.

12. When should I calculate CVD Risk?

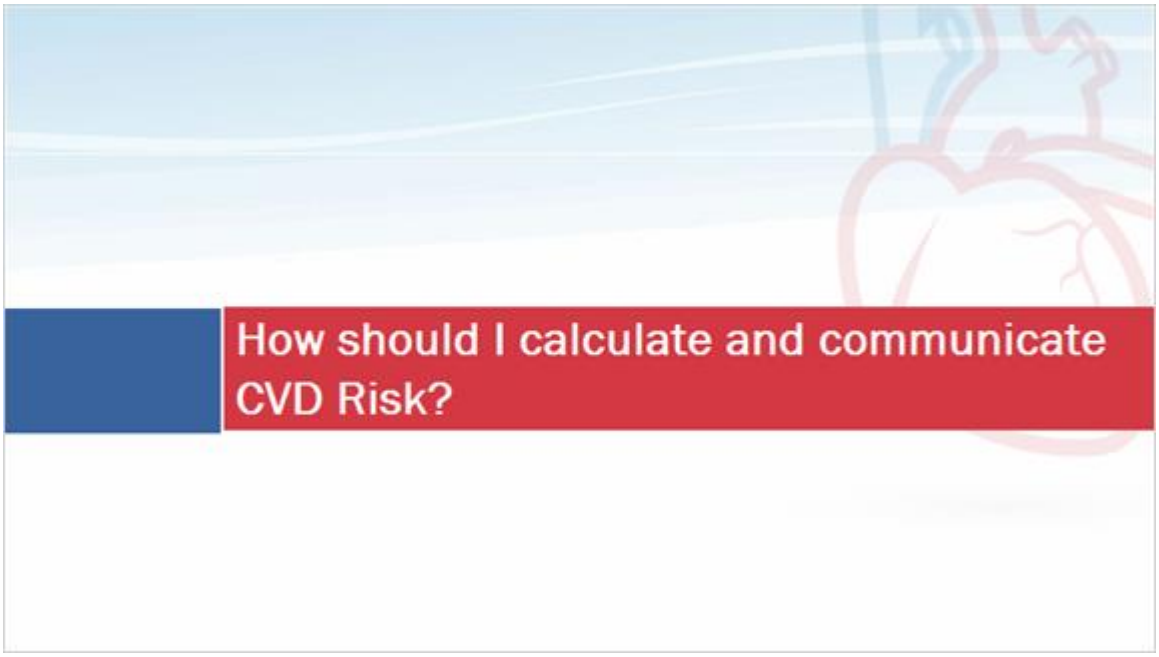


So, when should I calculate cardiovascular risks?

13. The Quick Answer

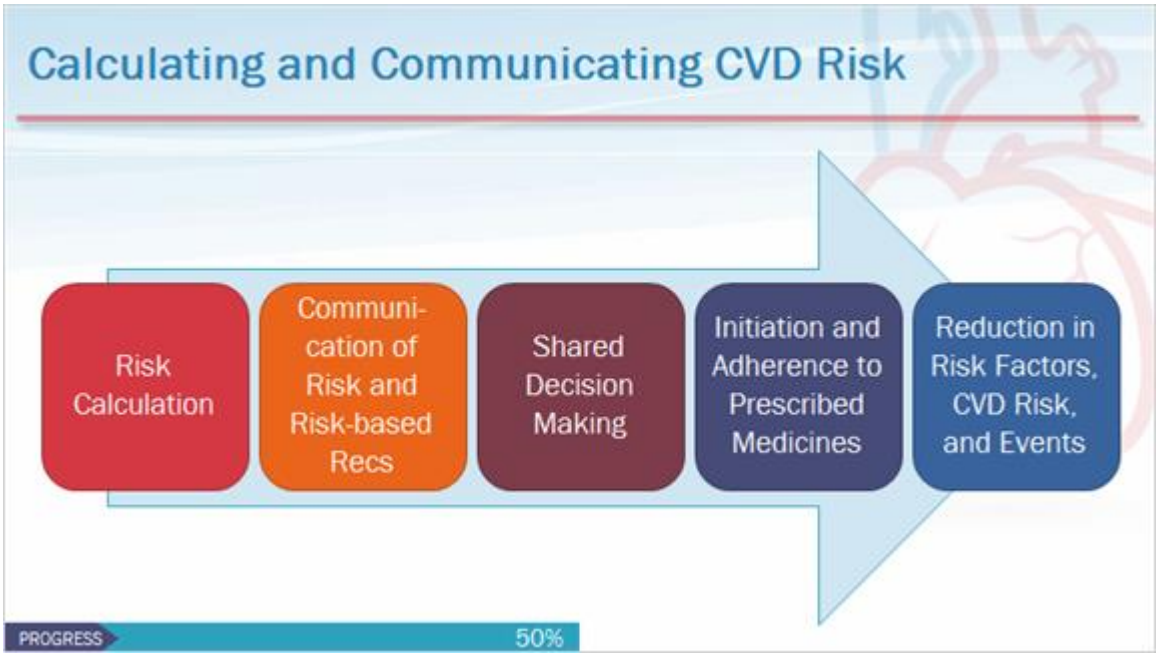
Well, the quick answer is, for all patients age 40 to 79 without prior cardiovascular disease to determine the need for risk-reducing medicine including aspirin and statins which are prescribed on a purely risk-based approach.

14. How Should I calculate and communicate CVD Risk?



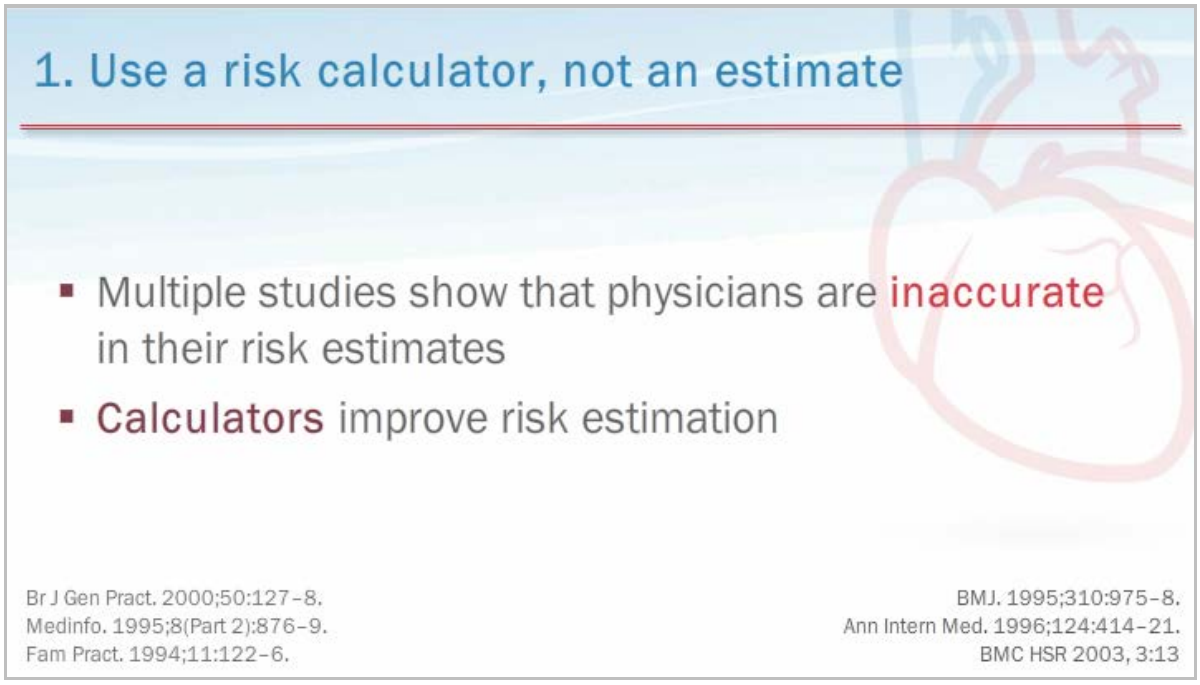
So, how should I calculate and communicate cardiovascular risk?

15. Calculating and Communicating CVD Risk



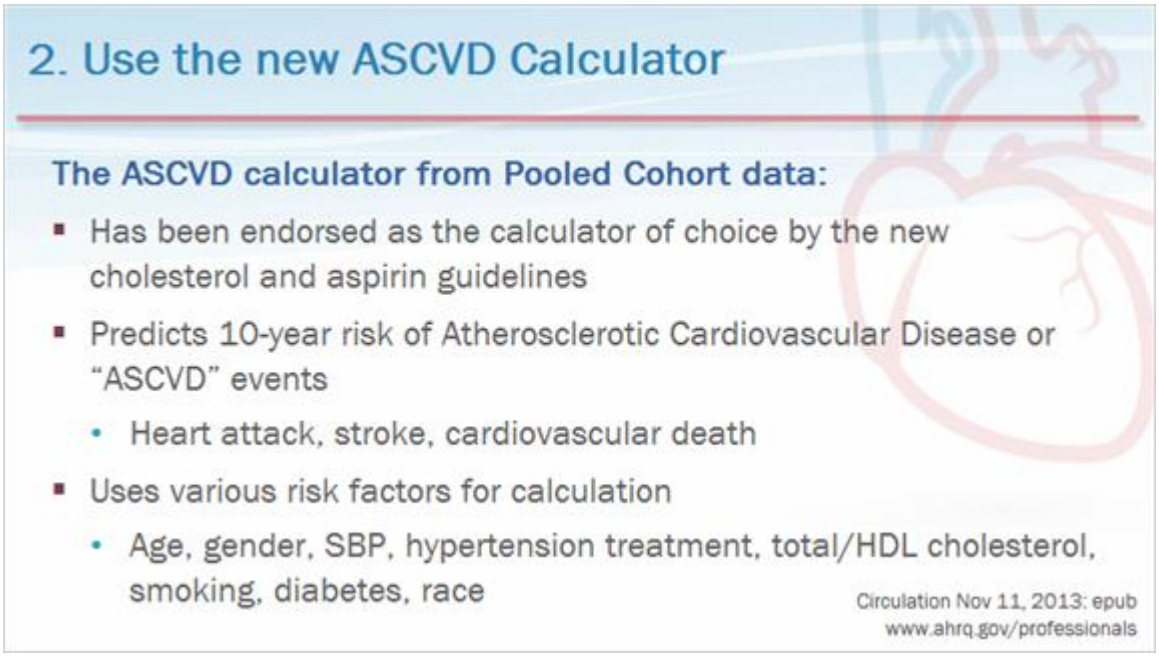
Well, the first thing is to know that risk calculation exists on a continuum to impact on cardiovascular events. The pathway starts with risk calculation, continues on through communication of risks and risk-based recommendations, and then it continues with shared decision making so that we can determine whether a risk-based recommendation aligns with patient's preferences and values. And, finally, it continues through initiation and adherence to prescribe medicines on to risk reduction of risk factors, cardiovascular risks; and, finally, events.

16. 1. Use a risk calculator, not an estimate



So, then, how can I communicate and calculate risks? Well, first, use a risk calculator, not an estimate. Multiple studies show that physicians are inaccurate in the risk estimates and that calculators improve risk estimation.

17. 2. Use the new ASCVD Calculator

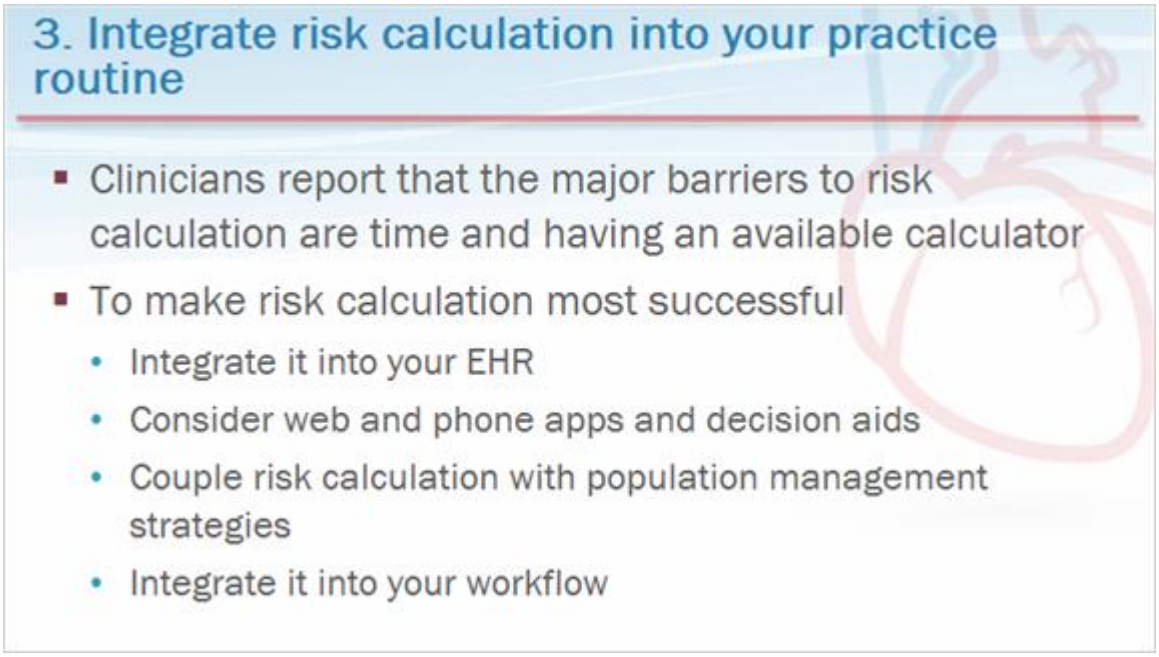


Second, use the new ASCVD calculator. The ASCVD, or Atherosclerotic Cardiovascular Disease calculator from the pooled cohort data has been endorsed as the calculator of choice by the new cholesterol guidelines from the American Heart Association, and the American College of Cardiology, and the new aspirin guidelines from the US Preventive Services Task Force. It predicts 10-year risks of Atherosclerotic Cardiovascular or ASCVD events including heart attacks, stroke, and cardiovascular death. And it uses various risk factors for calculation including age, gender, systolic blood pressure, hypertension treatment, total and HDL cholesterol, smoking, diabetes, and race.

18. 2. Use the new ASCVD Calculator

The calculator also has good predictive validity performing similarly to the older Framingham equations. It correctly classifies those with cardiovascular events higher than those without events, about 70 percent of the time. And like the older Framingham equation, it slightly overestimates the exact risks. This calculator has been reasonably well-studied in whites and African Americans.

19. 3. Integrate risk calculation into your practice routine

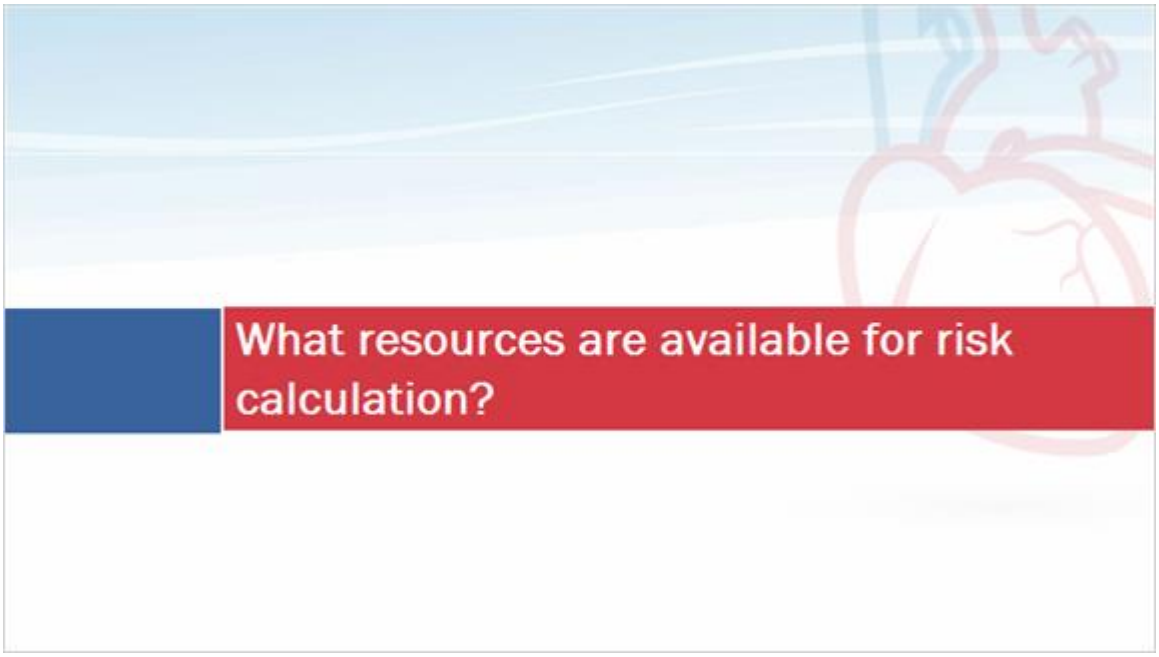


Third, you should integrate risk calculations into your practice routine. Clinicians report that major barriers to risk communication are time and having an available calculator. To make risk calculation more successful, you should integrate it into your Electronic Health Record. Consider Web, and phone apps, and decision aids to help. Couple risk calculation with population management strategies, and integrate it into your workflow.

20. 4. Communicate Risk to Patients

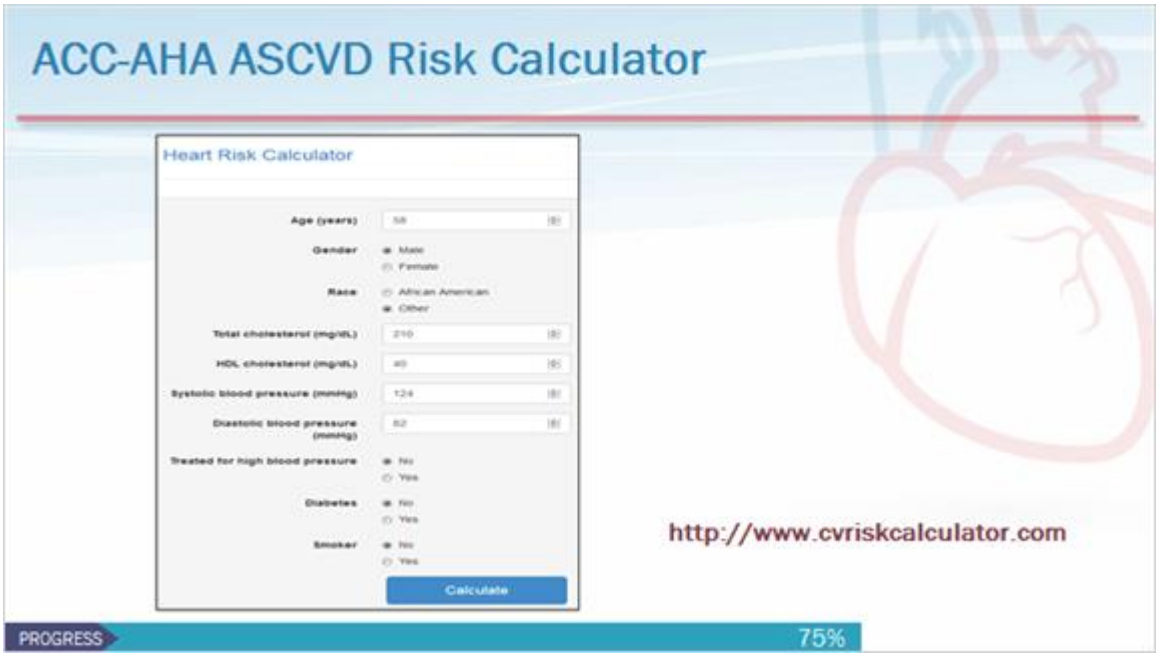
So, in four, communicate risks to patients. Optimal risk communication includes a statement of risks such as, "your chances of future heart attack, stroke, or cardiovascular-related death over 10 years is X percent." I want you to notice a few things about this statement. First, the word *chances* instead of *risks.* This is more understandable to patients. Second, a statement of outcomes: heart attack, stroke, or cardiovascular-related death. And, third, a statement of time: over the next 10 years. All of these things make risks more understandable to patients. Optimal risk communication also includes an indication of how much risk can be lowered with one, or multiple, preventive treatments. We have evidence that patients pay more attention to how much the risk can be lowered than where they start with the risks. And, finally, optimal risk communication includes shared decision making and supportive counseling for risk reduction. This ensures that risk-based recommendations align with patient's preferences and values. And that information is provided so patients can circumvent their barriers to risk reduction.

21. What resources are available for risk calculation?



So, what resources are available for risk calculation?

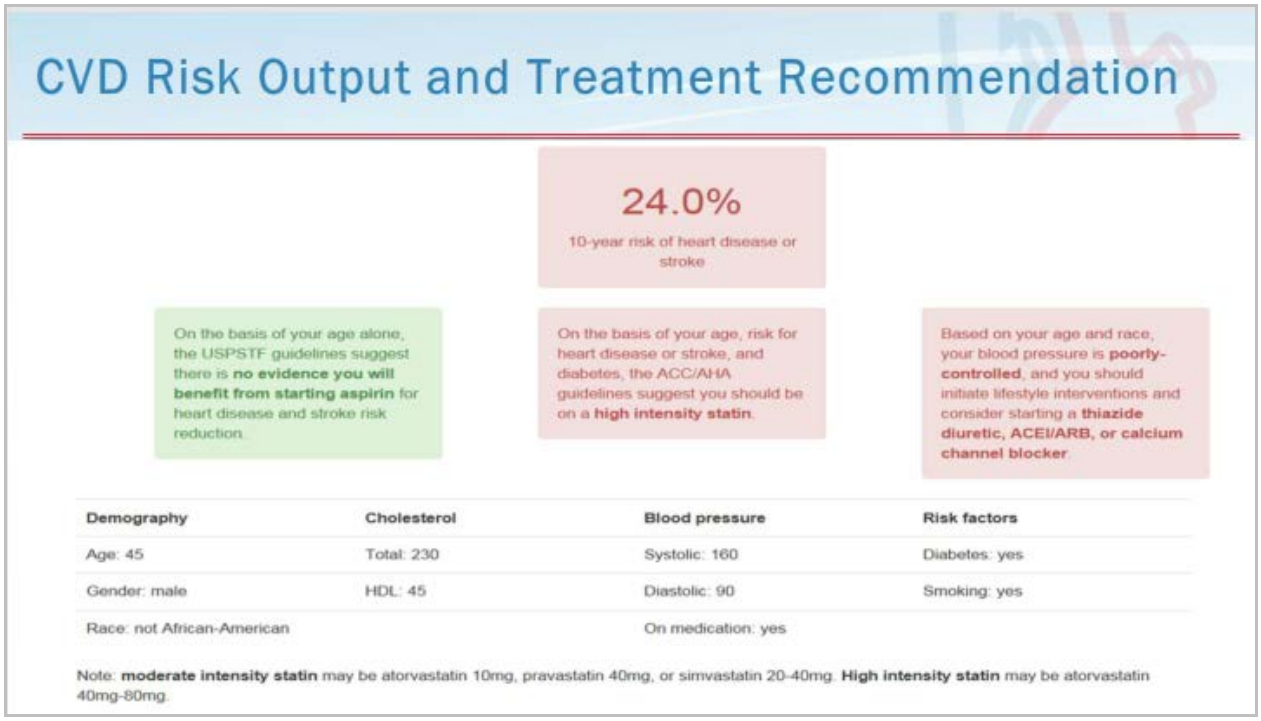
22. ACC-AHA ASCVD risk calculator



Well, I want to draw your attention to this ASCBD risk calculator at

http://www.CVRiskCalculator.com.

23. CVD Risk Output

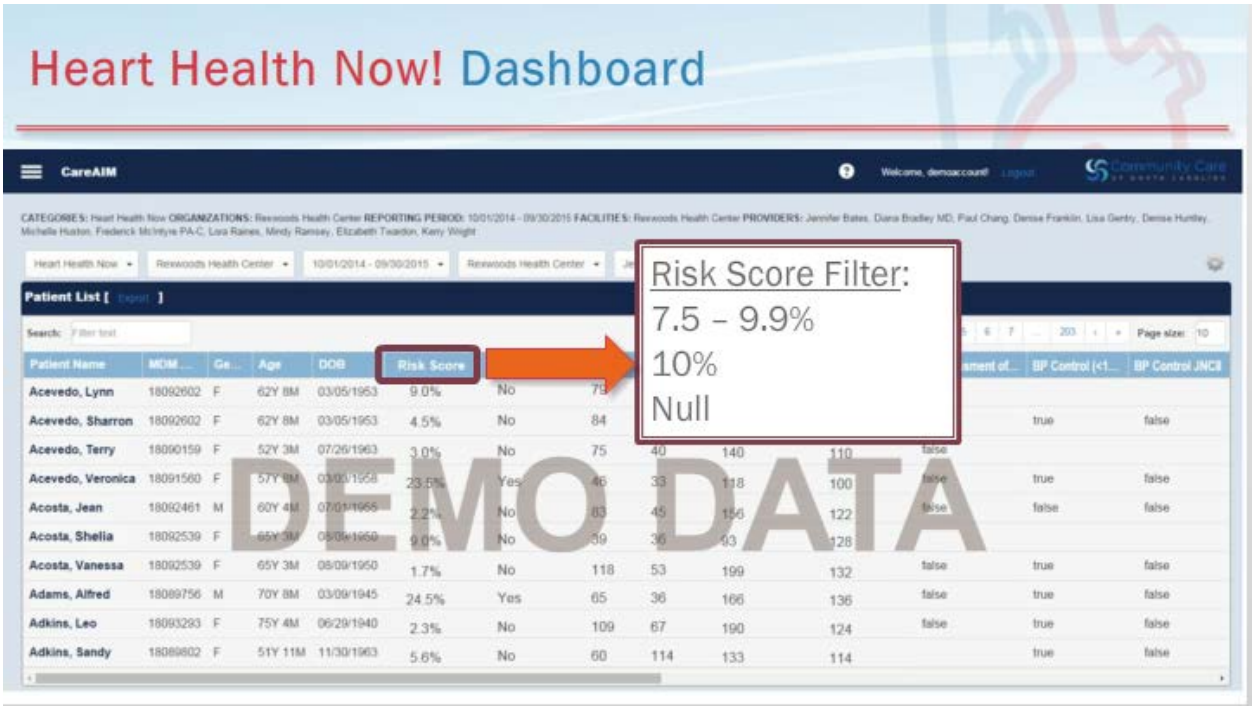


This risk calculator is great, because it allows you to enter information about your risk factors, and it provides information about how to address them. And it also reminds you about risk factors and their levels.

24. Other Risk Calculators or Information about CVD Risk

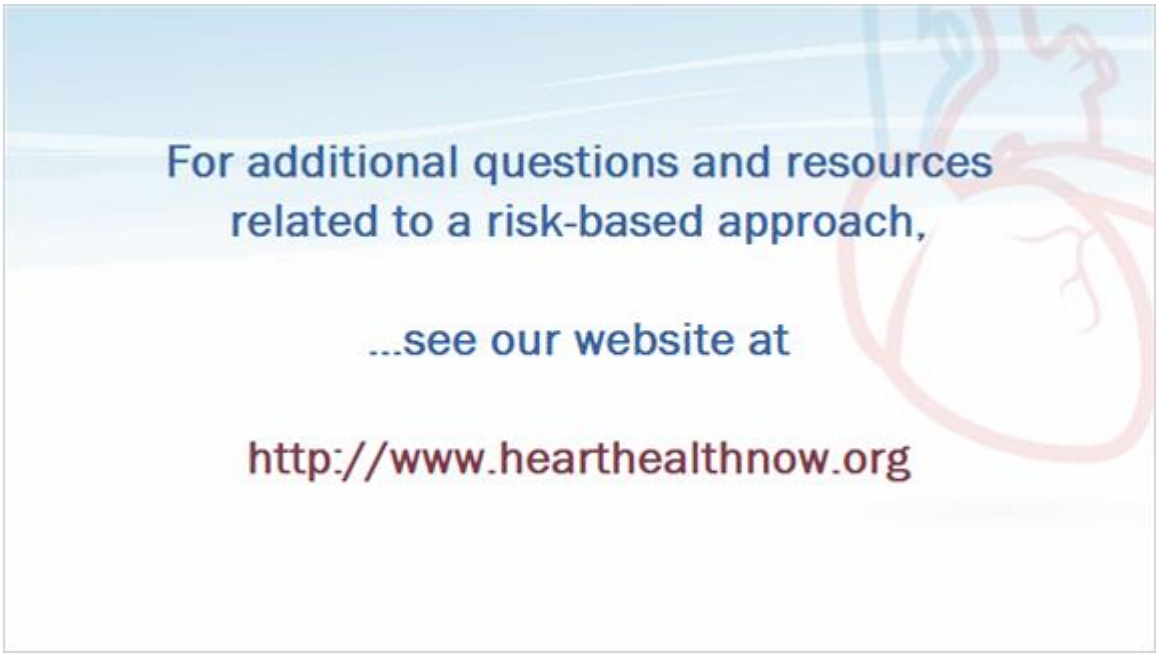
There are also many other risk calculators or information about cardiovascular risk that you can access. These include risk calculators from The American Heart Association and American College of Cardiology that are associated with their statin guidelines, materials from Healthwise which can be accessed at our website and also information from a well-tested decision aide and counseling program for cardiovascular risk prevention.

25. Heart Health Now! Dashboard



Finally, I want to draw your attention to the Heart Health Now dashboard. This dashboard provides information about ASCVD risks, your risk factors, and ways that you can lower your risks. And it provides it for populations of patients so that you can manage risks at a population level.

26. For additional questions and resources

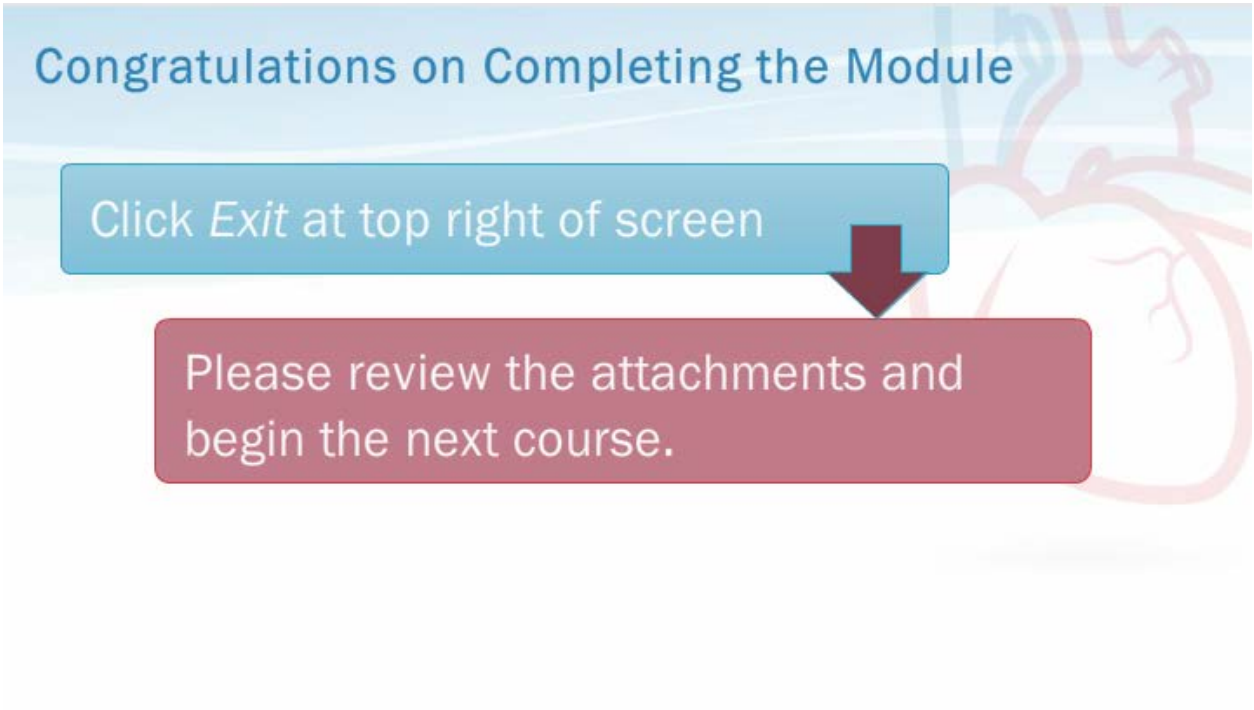


For additional questions and resources related to a risk-based approach, see our Website at http://www.HeartHealthNow.org.

27. Deciding about CVD Risk Calculation and Your Practice

So, are you ready to implement cardiovascular risk calculation in your practice? In thinking about your readiness to implement cardiovascular risk calculation in your practice, think about: Do we have an approach to cardiovascular risk calculation? Could we use some additional help with identifying the best approach to risk calculation in practice? In figuring out how to integrate risk calculation for maximal efficiency? And in figuring out how to communicate with patients about cardiovascular risk? If you answered yes to any of these questions, talk to your practice facilitator about cardiovascular risk calculation. Because together we can renew our commitment and get to heart health now.

29. Congratulations



30. The Evidence Team

31. The Evidence Team