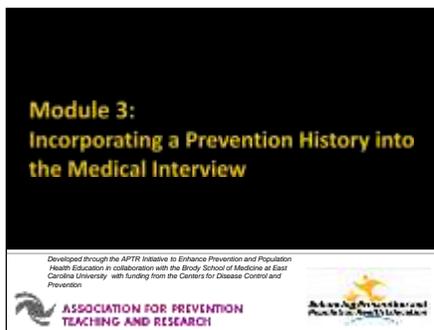


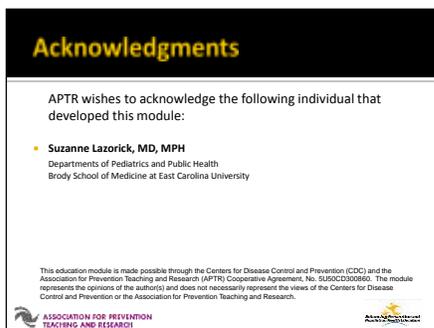
# Module 3: Incorporating a Prevention History into the Medical Interview

## TRANSCRIPT



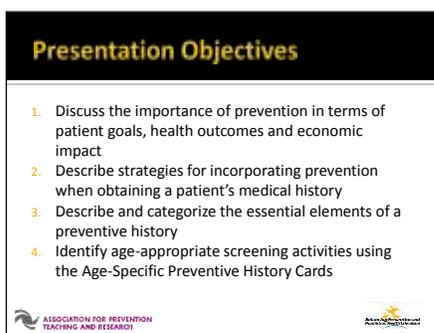
### Slide 1: Introduction

Welcome to module three Incorporating a Prevention History into the Medical Interview. This module was created as part of the Enhancing Prevention and Population Health Education series of educational modules sponsored by the Association for Prevention Teaching and Research.



### Slide 2: Acknowledgements

My name is Suzanne Lazorick, and I will be presenting this module. I'm assistant professor of Pediatrics and Public Health at the Brody School of Medicine at East Carolina University.



### Slide 3: Presentation Objectives

The presentation objectives for this module include: discuss the importance of prevention in terms of patient goals, health outcomes, and economic impact; describe strategies for incorporating prevention when obtaining a patient's medical history; describe and categorize the essential elements of a preventive history;

and identify age-appropriate screening activities using the Age-Specific Preventive History card.

**Patient goals: What do patients come to a medical provider for?**

- Help with a specific problem
- Treatment of one or more problems
- To feel better
- To be healthier
- To live longer

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**Slide 4: Patient goals: What do patients come to a medical provider for?**

In thinking about incorporating prevention into the medical history it's helpful to step back and think about the reasons patients come to a medical provider. Often what first comes to mind is that they come for help with a specific problem, or they come on a regular basis for

treatment of one or more problems. They also come, often hoping to feel better, or even hoping to be healthier, but in the long run all of these things come together, in that a patient comes to a medical provider hoping to live a longer and healthier life. It's part of our role as medical providers to meet this need, even when a patient is coming to us with seemingly one specific issue.

*"The physician's function is fast becoming social and preventative, rather than being individual and curative. Upon him society relies to ascertain, and through measures essentially educational, to enforce conditions to prevent disease..."*

Abraham Flexner  
The Flexner Report on Medical Education in the United States and Canada, 1910

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**Slide 5: Quote from 1910**

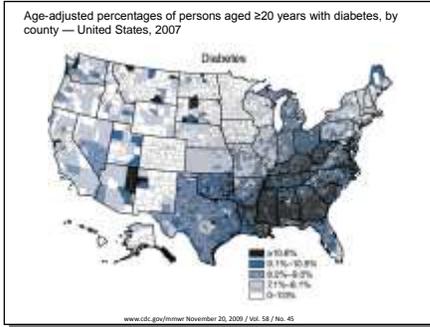
This quote from 1910 shows how the physician, or more broadly, the health care provider function extends to more than just addressing one issue at a time. The quote is from Abraham Flexner and states "The physician's function is fast becoming social and preventative rather than being individual and curative. Upon him

society relies to ascertain, and through measures essentially educational, to enforce conditions to prevent disease." Even back in 1910 it was being recognized that prevention was central to the role of a health care provider. The next set of slides show variation in prevalence of preventable conditions across the United States.



**Slide 6: Adult Population that is Obese**

This slide shows data from 2010 comparing percent of the adult population that is obese across the United States, ranging from a low in Colorado of 19%, or 1 in 5 people, to a high of almost 34%, or 1 in 3 adults, in Mississippi.



**Slide 7: Prevalence of Diabetes**

This slide shows a similar map with the prevalence of diabetes. This shows age-adjusted percentages of persons over 20, with diabetes, by county in the United States. Again this shows variation between counties, where some counties have less than 7% and other counties have higher than 10% prevalence. In the next

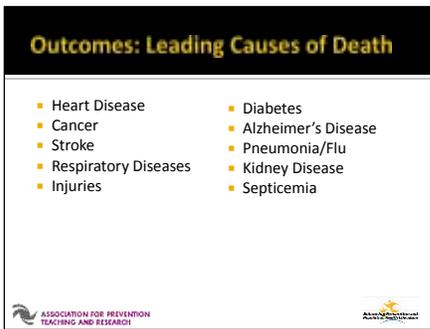
slide we will show how prevention efforts over time can show a difference in some regional variation.



**Slide 8: Smoking Prevalence among Adults**

Here we see the smoking prevalence among adults from 1998. Then in 2003 and again in 2008 the darkening blues show the increasing percentage of adults who continue to smoke daily. According to data by the Centers for Disease Control and Prevention what you see in the map of 1998 compared to 2008 is very few

states continue to have a prevalence of higher than 25% showing that prevention efforts over time have decreased the percentage of adults who smoke every day. Why does variation in obesity or diabetes prevalence, or changes in tobacco use, over time matter? In the next few slides let's take look at the most common causes of death.



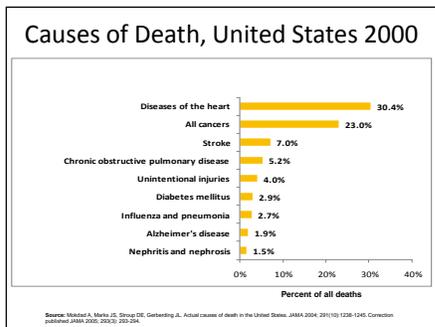
**Slide 9: Outcomes: Leading Causes of Death**

This slide shows the leading cause of death based on death certificate data. It's not surprising what we see on the list: heart disease, cancer, stroke, respiratory diseases, injuries, diabetes, Alzheimer's, pneumonia, influenza, kidney disease, and septicemia.



**Slide 10: Leading Preventable Causes of Death**

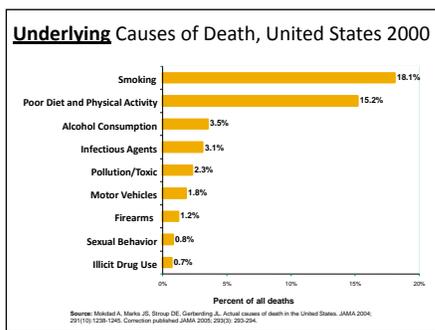
If we think about how many of these are preventable as shown by the asterisk (\*), we see that lifestyle changes or other factors can contribute to preventing essentially all of the leading causes of death.



**Slide 11: Causes of Death, United States 2000**

Another way to look at this is demonstrated by looking at the causes of death in the year 2000, as was described in an article published in JAMA in 2004. We see with decreasing prevalence many of the same conditions shown on the previous slide with diseases of the heart causing 30% of death, cancers causing 23%, stroke causing 7%, and then going down from there to kidney diseases, nephritis and nephrosis causing 1.5%.

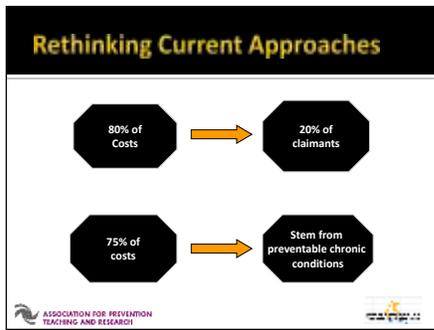
What was interesting in this paper was the authors then looked at the evidence for what were the underlying causes of death for these conditions, and transformed the data to show what the actual underlying causes were, rather than the medical diagnosis. These are shown in the next slide.



**Slide 12: Underlying Causes of Death, United States 2000**

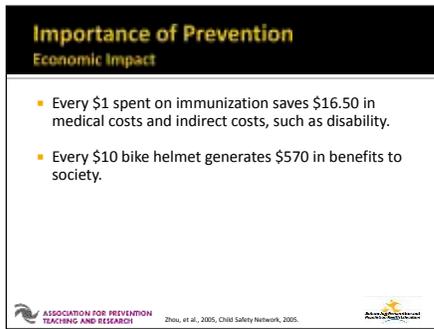
Here the true underlying causes of death in that year are quantified. Now we see that smoking caused 18%, poor diet and physical activity caused 15%, and alcohol consumption caused 3.5% of deaths. Over a third of the deaths were essentially caused by behaviors that could have

been changed if intervention or prevention had occurred. The remaining items on the list also represent, for the most part, preventable conditions or behaviors.



### Slide 13: Rethinking Current Approaches

This slide shows this concept, of the impact of prevention, in another way. When considering the costs in the U.S. healthcare system it has been shown that 80% of all costs annually are actually generated by only 20% of the population, and that 75% of the cost actually stem from preventable chronic conditions.



### Slide 14: Importance of Prevention

The importance of prevention is further demonstrated by looking at economic impact. A few examples are listed here. It has been shown that every \$1.00 spent on immunizations saves \$16.50 in medical costs and indirect costs such as disability. Similarly every \$10.00 spent on a bike helmet generates \$570 in benefits to society by

preventing head injuries and all the associated costs.



### Slide 15: Hippocratic Oath

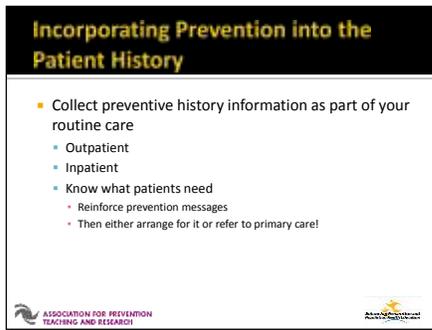
Even from the time of Hippocrates the emphasis on prevention was known. One of the lines of the modern day Hippocratic Oath that is now taken by all physicians at the time of graduation reads: "I will prevent disease whenever I can for prevention is preferable to cure." With all this in mind we move on to thinking about strategies

for incorporating prevention into our regular care of patients, which starts with taking the patient history.



### Slide 16: Strategies for Incorporating Prevention

From all of this evidence on prevention and impact on health and economic outcomes it is easy to appreciate the importance of regularly and comprehensively assessing and identifying the prevention needs of all patients. It is a reasonable goal of the healthcare system always to address all prevention needs.



**Incorporating Prevention into the Patient History**

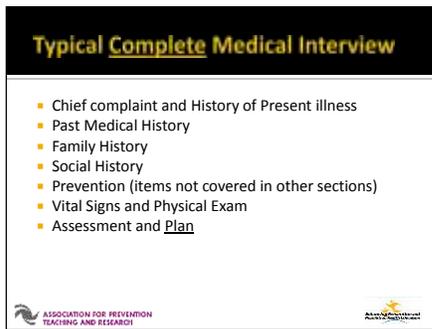
- Collect preventive history information as part of your routine care
  - Outpatient
  - Inpatient
- Know what patients need
  - Reinforce prevention messages
  - Then either arrange for it or refer to primary care!

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### Slide 17: Incorporating Prevention into the Patient History

From this point forward we will talk about strategies to collect preventive history information as part of the routine care of patients. This can be done in outpatient or inpatient settings. It can be used to determine what preventive services patients need. Then

providers can reinforce prevention messages as well as arrange for the needed care or referral to a primary care provider who can arrange the needed care.



**Typical Complete Medical Interview**

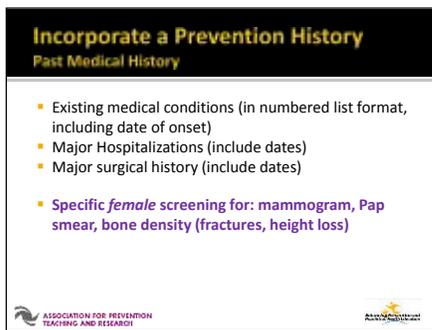
- Chief complaint and History of Present illness
- Past Medical History
- Family History
- Social History
- Prevention (items not covered in other sections)
- Vital Signs and Physical Exam
- Assessment and Plan

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### Slide 18: Typical Complete Medical Interview

A typical complete medical interview and write-up as taught in medical schools or any learning setting where providers are taking a medical history starts first with a chief complaint and history of present illness to address why the patient is there. The remaining components include: the past medical history, family history,

social history, prevention (items that are not covered in other sections), the vital signs, physical exam, and finally creating an assessment and plan for the patient. We will next go through each of these sections and identify where prevention items can be easily incorporated. On all the slides specific prevention items are shown in purple font.



**Incorporate a Prevention History**

**Past Medical History**

- Existing medical conditions (in numbered list format, including date of onset)
- Major Hospitalizations (include dates)
- Major surgical history (include dates)
- Specific female screening for: mammogram, Pap smear, bone density (fractures, height loss)**

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### Slide 19: Incorporate a Prevention History

As taught in the past, medical history traditionally includes any existing medical conditions, as well as major hospitalizations and surgeries. This section can easily include any specific screening that is required for that patient for chronic diseases, such as whether or not the patient has had a mammogram, pap smear, or

bone density test.

**Incorporate a Prevention History**  
Family History

- Family health record (e.g. siblings, parents, and grandparents)
  - age and health status
  - if deceased, cause of death
- History of screening for diseases specific to known family history

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### Slide 20: Incorporate a Prevention History

Once a provider has obtained a family health history, which includes the health status of siblings, parents, and grandparents, or causes of death if deceased, a natural question to follow would be to ask the patient the history of screening for any of these diseases known to be present in the family.

**Incorporate a Prevention History**  
Social History

- Home/ Household
- Work/educational history
- Support systems
- Cultural background
- Travel history
- Risk of TB or hepatitis exposure
- Substance Use/Abuse
- Diet/Physical activity habits
- Safety Measures
- Sexual history

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### Slide 21: Incorporate a Prevention History

When obtaining the social history many prevention components can be incorporated. After asking traditional questions regarding the household situation, work, and educational history, other support systems etc. this is a natural place to obtain travel history, to query risks of tuberculosis, or hepatitis exposure, as

well as lifestyle habits such as substance use or abuse, diet and physical activity habits, safety measures and sexual history.

**Incorporate a Prevention History**  
Additional prevention needs

<ul style="list-style-type: none"><li>Age-Appropriate Screenings<ul style="list-style-type: none"><li>blood pressure</li><li>diabetes</li><li>lipids</li><li>colon cancer</li><li>depression</li><li>weight problems</li><li>sexually transmitted infections (STIs)</li></ul></li></ul>	<ul style="list-style-type: none"><li>Immunizations<ul style="list-style-type: none"><li>Influenza</li><li>pneumococcal</li><li>pertussis</li><li>tetanus</li><li>varicella</li><li>hepatitis A and B</li><li>MMR</li><li>meningococcal</li><li>HPV</li><li>receipt of BCG vaccine for TB in another country</li></ul></li></ul>
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### Slide 22: Incorporate a Prevention History

Then if not already covered the provider can specifically ask here any prevention items from previous screenings obtained, such as blood pressure, diabetes testing, lipid levels, colon cancer screening, history of depression, history of weight problems, or sexually transmitted infections. In addition the patient can be asked

what immunizations they have had.

**Incorporate a Prevention History**  
Physical Exam

- Vital Signs
  - temperature
  - heart rate
  - blood pressure
  - respiratory rate
- Anthropometrics
  - height
  - weight
  - body mass index (BMI)

**Slide 23: Incorporate a Prevention History**

When moving on to the vital signs and physical exam this is the place where height and weight can be recorded and body mass index can be calculated.

**Incorporate a Prevention History**  
Categories of Prevention Needs

- Cancer and chronic disease screening
- Lifestyle/habits
- STIs/contraception
- Immunizations

**Slide 24: Incorporate a Prevention History**

All of the items are collected as part of the history fall into one of four categories that are useful when thinking about prevention needs: cancer or chronic disease screening; lifestyle and habits; sexually transmitted infections and/or contraception; and immunizations. When thinking in these categories it is easy to create

the plan for the patient to make sure each item is covered and no opportunities for prevention are overlooked.

**Incorporate a Prevention History**  
Example of a Patient Treatment Plan

Plan:

1. Continue blood pressure medicine, educated re: low salt and low fat diet, exercise, and decrease alcohol
2. Encouraged smoking cessation
3. Apply for medication assistance program
4. Prevention needs: Flu shot today; encouraged continued daily walking and decreasing fried foods; overdue for colon cancer screening- schedule colonoscopy.
5. Follow-up in 3 months

**Slide 25: Incorporate a Prevention History**

This slide shows an example of what a patient treatment plan would look like that addresses both the reason for the visit and covers the items required for anticipating preventive needs. In this case the patient had come for adjustment of blood pressure medications. Step one of the plan is to continue the blood pressure medication, in

addition to providing education regarding appropriate diet and exercise. Number two is encouraging smoking cessation. Number three is assisting the patient in obtaining medications for the hypertension. And finally number four is an item termed “prevention needs” in this case the patient needed a flu shot and was encouraged to continue daily walking and decreasing fried foods and was noted to be overdue for colon cancer screening so the notation was made that a colonoscopy needed to be scheduled. By attending to prevention throughout the history at the time of formulating a patient plan, each category can be covered and needs addressed. In order to make sure age-appropriate screening is done a provider has to have in mind the age- and gender-appropriate screening that is needed at the time of seeing the patient.



**Slide 26: Age-Specific Preventive History Cards**

In order to facilitate this, a pair of patient reference cards has been created called the “Age-Specific Preventive History Cards.”

Examples are provided by pdf on the web site and can be easily printed on pocket size plastic cards or ordered through the Department of Public Health at the Brody School of Medicine,

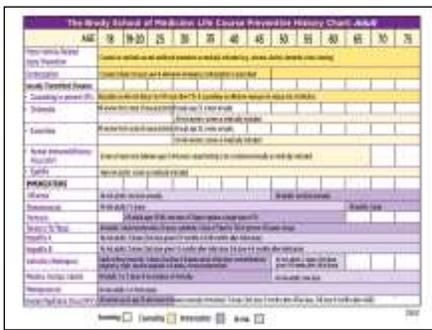
East Carolina University. These cards have been used at the Brody School of medicine for several years and have just been revised in 2012 including the most recent U.S. Preventive Services Task Force (USPSTF) guidelines.



**Slide 27: Adult Screening Card**

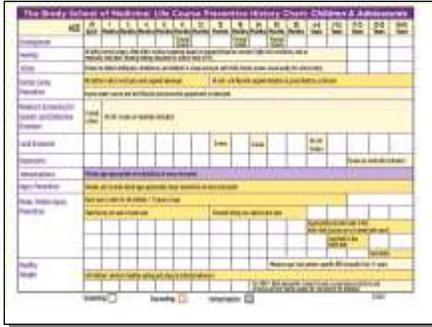
The next four slides show the cards. The adult card is divided into categories for cancer and chronic disease, lifestyle, sexually transmitted infections and contraception, and immunizations. The colors on the card indicate what is needed; the purple showing that screening is needed, the yellow showing that counseling is needed, and the teal depicts that immunization is needed. The age is shown along the top and the prevention items along the left, so when seeing a patient it is very easy to find their age and then scan down each category to see what is needed at that visit or at this age. For example a 50 year old woman would need a mammogram, screening for cervical cancer, counseling regarding calcium intake, discussion of whether aspirin is needed, and screening as indicated for depression, type 2 diabetes, hypertension, lipid disorders, obesity, and tuberculosis. Lifestyle habits would be assessed and counseled appropriately including alcohol/tobacco/substance use, healthy diet and physical activity.

The next four slides show the cards. The adult card is divided into categories for cancer and chronic disease, lifestyle, sexually transmitted infections and contraception, and immunizations. The colors on the card indicate what is needed; the purple showing that screening is needed, the yellow showing that counseling is needed, and the teal depicts that immunization is needed. The age is shown along the top and the prevention items along the left, so when seeing a patient it is very easy to find their age and then scan down each category to see what is needed at that visit or at this age. For example a 50 year old woman would need a mammogram, screening for cervical cancer, counseling regarding calcium intake, discussion of whether aspirin is needed, and screening as indicated for depression, type 2 diabetes, hypertension, lipid disorders, obesity, and tuberculosis. Lifestyle habits would be assessed and counseled appropriately including alcohol/tobacco/substance use, healthy diet and physical activity.



**Slide 28: Child Screening Card**

Flipping the card over and looking at the next slide, a 50 year old woman could be asked about safety habits and motor vehicles, any history of sexually transmitted infections or need for testing could be addressed, and immunization needs will also be addressed.



**Slide 29: Child Screening Card**

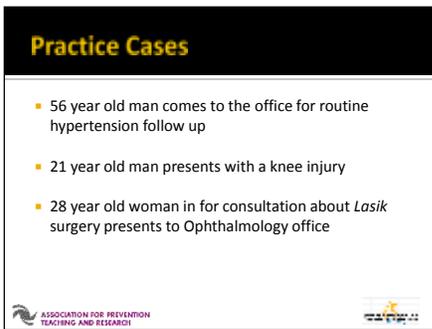
The card for children is similar except, because so many prevention needs vary by age in months, the scale along the top shows that over half of the card actually covers: birth to three years, and then the years are condensed for 4 to 6, 7 to 10, 11 and 12, 13 to 15, and 16 to 18 years. Also with children there is a significant list

of required developmental screening specific for children. Since the immunizations recommended frequently change, and are covered with their own age-appropriate charts, specific immunizations are not shown on this card, instead it is shown in teal the age-appropriate immunizations should be reviewed at every encounter.



**Slide 30:**

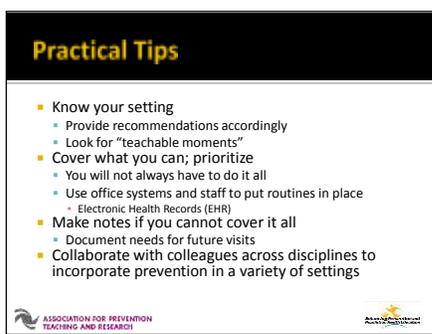
Otherwise the cards are arranged in the same way as the adult card in that a provider finds a patient's age along the top and then scans down the list to identify indicated prevention needs.



**Slide 31: Practice Cases**

Next we will demonstrate how these cards can be used in practice settings. The first example is a 56 year old man who comes to the office of a primary care physician for a routine hypertension follow-up. This case follows essentially what was demonstrated as we talked through the care plan that was created at the end of a visit for a hypothetical patient. Prior to seeing the patient, the provider could review the Age-Specific Preventive History card and quickly scan down the column for a 50 year old person and see which items are pertinent for this patient. Any relevant items could be queried in the history and then incorporated into the plan as demonstrated before. Another example which may not be as obvious is a 21 year old man who comes to a provider with a knee injury. Often in typical practice the provider may not be thinking of prevention at this time, and the 21 year old may not be coming to the doctor expecting to be counseled. However, thinking back to the underlying reasons why patients seek medical care, and the common underlying causes of death, we may find opportunities for prevention. For instance, imagine that the cause of the knee injury was that the

gentleman was riding a four wheeler and it turns out he was not wearing a helmet and he was riding with his 14 year old cousin who also was not wearing a helmet. In addition it was noted upon walking into the exam room that he smelled of tobacco smoke. In this case one quickly realizes that although the patient is there with an acute knee injury there are significant opportunities for prevention around helmet use and tobacco. Also the patient's blood pressure should be taken for screening, and the patient's medical history should include the items mentioned above to assess for risk of chronic diseases in the family as well as lifestyle habits that could help him lead to a healthier, longer life. Finally we consider a 28 year old woman who sees an ophthalmologist for consultation for Lasik surgery. In this case even though the ophthalmologist would not be the one to provide preventive services or to routinely refer for them, just by taking a complete history, this provider has the opportunity to ensure that this woman's health care needs are addressed. This specialist could assess for the risk of chronic conditions by assessing family history, risk of sexually transmitted infections or pregnancy, or other lifestyle habits that could affect this woman's health; as well as measure blood pressure and body mass index as part of the physical exam. In this way when the plan is formulated for Lasik surgery, the provider could easily mention the key things that this woman may need as part of her prevention needs, and facilitate her seeing a primary care provider if needed. These cases demonstrate that even when a patient does not specifically present for primary or preventive care, opportunities arise for providing adequate prevention that may include: screening, counseling, or referring to a primary care provider. Alternatively if patients come to a provider and opportunities are missed, patients are often given an indirect message that these issues are not important. For instance in cases like the 21 year old who smelled like tobacco, if the health care provider doesn't mention it, the patient could easily say "Well I saw a doctor last year and nobody said anything about my smoking."



**Practical Tips**

- Know your setting
  - Provide recommendations accordingly
  - Look for "teachable moments"
- Cover what you can; prioritize
  - You will not always have to do it all
  - Use office systems and staff to put routines in place
    - Electronic Health Records (EHR)
- Make notes if you cannot cover it all
  - Document needs for future visits
- Collaborate with colleagues across disciplines to incorporate prevention in a variety of settings

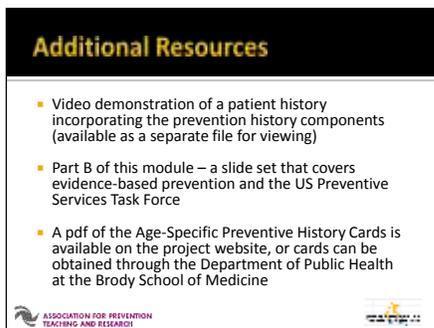
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### Slide 32: Practical Tips

There are several practical tips for incorporating prevention into every medical encounter. First is to know you're setting and provide recommendations accordingly, looking for teachable moments. Next is to cover what you can and prioritize. One individual provider cannot always be responsible for doing it all.

Increasingly one can and should use office systems and other staff to help put routines in place. More commonly now electronic health records are including age-appropriate prompts to the healthcare provider to assess for certain things. Steps in the office intake process can collect this information, even prior to the patient seeing the healthcare provider. In situations where everything is not covered in one visit, documentation can be used and notations can be made about what needs to be covered at future visits.

Most importantly there should be collaboration between colleagues across disciplines to incorporate prevention in a variety of settings. If we're going to reach the goal that no prevention needs go unaddressed, then a complete prevention history needs to be incorporated into every medical setting.



**Additional Resources**

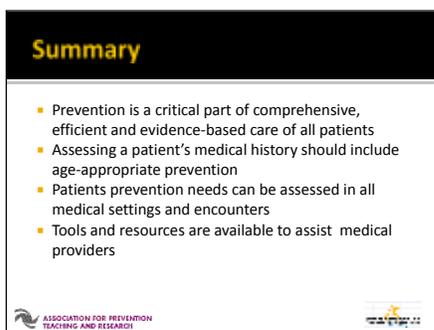
- Video demonstration of a patient history incorporating the prevention history components (available as a separate file for viewing)
- Part B of this module – a slide set that covers evidence-based prevention and the US Preventive Services Task Force
- A pdf of the Age-Specific Preventive History Cards is available on the project website, or cards can be obtained through the Department of Public Health at the Brody School of Medicine

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### Slide 33: Additional Resources

Additional resources to support incorporating prevention more routinely and specifically into the patient history include a video demonstration of a patient history that incorporates the prevention history components as described here. In addition, a second part of this module three covers evidence-based

prevention and specifically the methods used by the U.S. Preventive Services Task Force to determine age-appropriate needs, which are the primary guidelines used for the age-specific preventive history cards described here. These cards can be obtained through the Department of Public Health at Brody School of Medicine.



**Summary**

- Prevention is a critical part of comprehensive, efficient and evidence-based care of all patients
- Assessing a patient's medical history should include age-appropriate prevention
- Patients prevention needs can be assessed in all medical settings and encounters
- Tools and resources are available to assist medical providers

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### Slide 34: Summary

In summary, prevention is a critical part of a comprehensive, efficient and evidence-based care of all patients. Assessing a patient's medical history should include age-appropriate prevention. Patient prevention needs can be assessed in all medical settings and encounters and there are tools and resources available to

assist medical providers.



**Collaborating Institutions**

- Center for Public Health Continuing Education  
University at Albany School of Public Health
- Department of Community & Family Medicine  
Duke University School of Medicine

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