Tobacco Use and Chronic Diseases: Findings from the 2014 Surgeon General’s Report (SGR)

50th Anniversary Surgeon General’s Report on the Health Consequences of Smoking

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Office on Smoking and Health

CDC Surveillance and Evaluation Webinar
October 30, 2014
“Cigarette Smoking is causally related to lung cancer in men, the magnitude of the effects of cigarette smoking far outweighs other factors. The data for women, although less extensive, point in the same direction”

“Smoking causes diabetes, colon cancer, new report says…”

“The Surgeon General report links more diseases, health problems to smoking tobacco…”  

“Cigarettes tied to more deaths, types of illness…”

“The Wall Street Journal”

“Surgeon General to Hollywood: Kick the cigarette habit…”

“Los Angeles Times”
The century-long epidemic of cigarette smoking has caused an enormous avoidable public health tragedy. Since the first Surgeon General’s report in 1964 more than 20 million premature deaths can be attributed to cigarette smoking.

- Since 1964, over 20 million Americans died because of smoking, including:
  - 2.5 million nonsmokers
  - 108,000 babies
  - 86,000 deaths from residential fires
  - 6.58 million from cancers
  - 7.8 million from CVD & metabolic diseases
  - 3.8 million from pulmonary diseases

- In 2012, 18.1% of U.S. adults were current cigarette smokers.

Sources:
Trends in Prevalence of Current Cigarette Smoking among U.S. Adults, by Gender; National Health Interview Survey 1965-2012

About 480,000 U.S. Deaths per Year Attributable to Cigarette Smoking


Direct medical expenses: >$130 billion annually
Lost productivity: >$150 billion annually due to premature death from direct smoking
“Even 50 years after the first Surgeon General’s Report, research continues to newly identify diseases caused by smoking, including such common diseases as diabetes mellitus, rheumatoid arthritis, and colorectal cancer.”
“Exposure to secondhand tobacco smoke has been causally linked to cancer, respiratory, and cardiovascular diseases, and to adverse effects on the health of infants and children.”
Lung Cancer Risks Increasing

- Between 1959-2010 cigarette consumption declined, but lung cancer risks:
  - Doubled for male smokers
  - Increased 10x for female smokers
  - Did not change for nonsmokers

Contributing factors:

- Ventilated filters
- Increased levels of chemicals
Final Major Conclusion: SGRs Matter

“For 50 years the Surgeon General’s reports on smoking and health have provided a critical scientific foundation for public health action directed at reducing tobacco use and preventing tobacco-related disease and premature death.”
Chapter 12, Conclusion 7 (p. 827):

“The evidence is sufficient to conclude that mass media campaigns, comprehensive community programs, and comprehensive statewide tobacco control programs prevent initiation of tobacco use and reduce the prevalence of tobacco use among youth and adults.”
Best Practices for Comprehensive Tobacco Control Programs

1999

Best Practices for Comprehensive Tobacco Control Programs

2007

Best Practices for Comprehensive Tobacco Control Programs

2014

Best Practices for Comprehensive Tobacco Control Programs
Major Goals of the National Tobacco Control Program and CDC’s Office on Smoking and Health

- Promote tobacco use cessation among adults and youth
- Prevent tobacco use initiation among youth and young adults
- Eliminate secondhand smoke exposure
- Identify and eliminate tobacco-related disparities
Increasing Tobacco Product Price is the Single Most Effective Method to Reduce Consumption

Comprehensive Smoke-Free Laws: United States 2000-2014

Source: CDC STATE System

- No State Law/Exemptions/Ventilation/Separation
- Partial Law (One Location)
- Partial Law (Two Locations)
- Comprehensive Law (Worksites & Bars & Restaurants)
Tips from Former Smokers

Three Major Goals

- Promoting health systems change
- Expanding insurance coverage and utilization of proven cessation treatments
- Supporting state quitline capacity
Clinical Interventions to Reduce Tobacco Use

“5A” model to help patients quit tobacco use:
- Ask about tobacco use
- Advise to quit
- Assess willingness to quit
- Assist patient in quitting
- Arrange for follow-up

The 2014 SGR reinforces the guidance outlined in CDC's Best Practices.

It is well known what works to effectively reduce tobacco use and tobacco-related chronic disease outcomes.

Enhanced efforts are needed to better implement the evidence-based interventions (i.e. price increases, smoke-free policies, mass media campaigns, and cessation support).
Surgeon General’s Report 2014:

Acknowledgements
- Brian A. King, PhD
- Linda Neff, PhD

Thank you

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Visit: www.cdc.gov | Contact CDC at: 1-800-CDC-INFO or www.cdc.gov/info

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Overview

1) A Brief (very brief!) *History of Integration* in Colorado
   a) Funding, Form, Function
2) Options for organizing chronic disease surveillance and evaluation efforts
3) Lesson’s learned
The Fine Print

Points of view or opinions stated in this presentation are those of the author and do not necessarily represent the official position or policies of the Colorado Department of Public Health and Environment or those of the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
This is not collaboration...
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State Chronic Disease Program Funding

- Mix of federal and state dollars
- Tobacco tax increase January 1, 2005
  - 16% of collections funds tobacco control
  - 16% funds cancer, cardiovascular and pulmonary disease grants program & health disparities grants program
- Combined level ~ $50 million per year
Program Form Follows Funding

- Chronic Disease Domains vs Content/Disease
  - Community-Clinical Linkages and Disease Management
  - Health Systems
  - Policy and Environmental Change
  - Epidemiology, Planning and Evaluation
  - Communications and Health Education
Program Form Follows Funding

- State Chronic Disease Plan
  - seeks alignment across funding
  - shared vision for state and local
- Health Equity Framework
Potential Functional Form

- Chronic Disease & Health Promotion Manager
  - Policy & Environmental Change
    - Policy Development
    - Policy Implementation & Regulation
  - Health Systems
  - Epidemiology & Evaluation
  - Finance & Operations
    - Community Clinical Linkages
    - Systems Transformation
Epidemiology, Planning & Evaluation (EPE) Branch

- Created in spring 2007 (within Prevention Services)
- Result of 6 month self-assessment process
- “Epidemiology & Evaluation Pool”
- Re-org created centralized service units
  a) Meant to improve performance
  b) Mechanisms of quality control & standardization
  c) Identify integration opportunities
EPE Partners with Health Statistics

Health Statistics Section:
- Collects &/or manages data
  - Birth & death certificates
  - PRAMS
  - CO Child Health Survey
  - BRFSS
  - Hospital discharge data
  - Youth surveys
- Executes data analysis plan to produce results

EPE Units:
- Designs data analysis plans - includes dissemination plan
- Summarizes results
- Interprets results (CQI)
- Assists in dissemination
Health Statistics and Evaluation Branch (HSEB)

- Created in spring 2014
- Merged EPE and Health Statistics
- “Center of Excellence” for data-related work
HSEB Involvement in Programs

- Evaluative thinking
- Benchmark setting
- Indicator/measure development
- Surveillance & epidemiology design
- Making data accessible
- Continuous quality improvement
- Demonstrating success
Examples of Coordination Synergy

- Epidemiology infrastructure
- Programs’ access to skill pool
  - Technical
  - Content
- Geographic Information System skills
- Alignment of evaluations
Colorado Cigarette Smoking Prevalence by County: 2005

Prevalence of Current Smokers
County point estimates
- 8.6 - 13.0%
- 13.1 - 16.0%
- 16.1 - 19.0% (state rate: 17.3%)
- 19.1 - 24.0%
- 24.1 - 40.0%

Interpretation:
Counties around the Southwest and Northeast have smoking prevalence rates below the state rate (around 17.3%). Counties in Southcentral and Southeast Colorado appear to have rates above the state.

Data Source: Colorado Tobacco Attitudes and Behavior Survey, 2005
Tobacco Program Evaluation Group; University of Colorado Denver.

Created by: Epidemiology, Planning and Evaluation Branch, July 2008
Contact: Carsten Baumann (303) 692-2556
Diabetes Self Management Trainers
Colorado

- **Lay Trainer(s)**
- **Lay and Master Trainers**
- **Master Trainer(s)**
- **Counties**

The number listed for each location is the total number of trainers at that location.

Created by EPE Branch
August 2009
Colorado County Ischemic Heart Disease Mortality Rates and Number of Deaths for 2002 to 2006

Interpretation:
County rates were suppressed where fewer than 20 deaths occurred in the five year period. The southeast and northeast corners have the highest rates, while the mountain counties the lowest rates per 100,000 population. The five colors represent quantiles.

Created by: Epidemiology, Planning and Evaluation Branch, May 2008
Contact: Mathew Christensen, 2335
InstantAtlas™ Oral Disease

Oral Disease Burden >> Lost any teeth due to decay or periodontal disease - adults 21+y >> 2010-2012

Data source: Behavioral Risk Factor Surveillance System (BRFSS)

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<th>Indicator</th>
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<th>Target</th>
<th>Baseline</th>
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<td>Dental Care Access and Utilization</td>
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<td>81</td>
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<td>Dental visit in past year - children 0-20y</td>
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<td>Dental visit in past year - adults 65+y</td>
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<td>Dental visit during pregnancy - women who gave birth</td>
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<td>Dental visit before age 1y - children 1-4y</td>
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<td>Regular source of dental care - children 1-14y</td>
<td>84.5</td>
<td>14.4</td>
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<td>Needed but did not get dental care in past year - children 1-14y</td>
<td>5.4</td>
<td>7.7</td>
<td>18.5</td>
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<td>Oral Disease Burden</td>
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<td>Fair or poor condition of teeth - children 1-14y</td>
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<td>9.7</td>
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<td>Lost any teeth due to decay or periodontal disease - adults 21+y</td>
<td>31</td>
<td>42.2</td>
<td>44.6</td>
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<td>Lost 6+ teeth due to decay or periodontal disease - adults 65+y</td>
<td>36.7</td>
<td>45.1</td>
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<td>Lost all teeth due to decay or periodontal disease - adults 65+y</td>
<td>16.5</td>
<td>20.7</td>
<td>20.2</td>
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<td>Preventive Systems and Behaviors</td>
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<td>Bottled water as main source of home water supply - adults 21+y</td>
<td>19.4</td>
<td>14.2</td>
<td>18.1</td>
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Alignment of S & E: Benefits

- External Evaluation
  - Three grants programs funded by tobacco tax (Amendment 35)
  - Common framework: Reach, Effectiveness, Implementation
  - Supports integration; reduces respondent burden
- Internal alignment: tools and approaches
- Quality control & efficiency
Alignment of S & E: Benefits

- Integration aids:
  - Flexibility
  - Objectivity
  - Expertise in methods
  - “Adapt a good idea from anywhere”
- Provides big-picture view
  - Connections for programs/interventions
  - Opportunities in surveillance and evaluation
Alignment of S & E: Challenges

- Determining priorities in work requests
- Adhering to systems
- Need for additional resources:
  - Specialized analytic skills
  - Maintaining program knowledge
- Building workforce capacity
- Nurturing relationships
Thank you!

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Center for Health and Environmental Data

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Questions