Strategic Practice Selection Exercise

June 2012

Written by Norma Kanarek, PhD, MPH for the Public Health Foundation (PHF)
with funding from the Affordable Care Act (ACA) Capacity Building Assistance to Improve Public Health Infrastructure Investments through a cooperative agreement with the Centers for Disease Control and Prevention

Strategic Practice Selection Exercise

Standards for health departments include a three part process of planning. Part 1 is a community health needs assessment where priorities are arrived with as much supporting local or state data possible. Topics considered may be quite broad and are then narrowed to a few that are important to the community and have great potential to be solved. Part 2 is a strategic plan[1], assessing the availability, affordability, accessibility, and utility of current interventions to solve the problem. Part 3 consists of an implementation plan with identified sources of funding, leaders/agencies, and time frame (1).

This exercise focuses on Part 2. To do this, we have used generic information, and evaluated for "most health departments" and most localities, however defined. Priorities, often assigned by communities/states, were based on expert opinion and recommendations found in the public health literature (2-7) (The process is not described here). The three priorities are: tobacco use prevention and cessation, mitigation of diabetes in the complex of obesity, and clinical public health preventive services. Each priority contributes to a sizable proportion of avoidable annual deaths (435,000, 365,000, and 140,000 respectively) (6, 8). Readers who share these priorities could with this exercise tailor the strategy findings to their community and then flesh out a community-based implementation plan.

Important components of strategic planning for each of the public health priorities include a selection of interventions that work ("strength of evidence"), the "potential intervention delivery and coverage" profile, and "community acceptability." Intervention-specific "strength of evidence" is based upon recommendations from various national efforts to evaluate the efficacy evidence: The Community Guide to Preventive Services (9), Clinical Preventive Services Task Force (10-17), the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (18), and others (19). The selected priority areas are shown to have strong intervention potential for public health (2, 3, 20-25). Vilnius and Dandoy proposed a rating system, beginning too with a small set of priorities, evaluating all interventions at once, and sketching acceptability in terms of deal breakers ("PEARL" whereas, we have created a continuum of willing to implement an public health priority intervention).

Potential intervention delivery and coverage consists of an estimate of the at-risk population (percent of the population), the extent to which an intervention has already been taken up, and whether the population at risk is reachable and can be served effectively. These factors, unique to individual communities or types of communities, may be adjusted to suit local situations, including whether a health department's reach or population health is the goal. Scoring was conducted drawing on experience and the public health literature (26-32).

[1] Strategic plan or strategic planning in the context of this exercise is intended to describe a strategic practice selection process for choosing public health interventions, not to be confused with the Public Health Accreditation Board's public health department accreditation application strategic plan pre-requisite.

Community acceptability pertains when the intervention is laden with cultural, political, ease of use, availability barriers or is perceived as not the job of public health. This assessment may be heavily influenced again by local situations and be tailored to better reflect one's location. Factors rated qualitatively were: applicability to health departments; utility to local health departments; reliability of implementation; ease of monitoring implementation; applicable to a broad range of communities; low controversy potential; and low resource or cost requirement. The qualitative rating of 1-5 stars was converted to percentage of stars assigned out of all possible (7 criteria x 5 = 35).

Table 1 summarizes all the information assembled for the strategic plan by public health priorities. By public health priority, Tables II.A-C identify interventions and their delivery and coverage potential. Table III.A. describes the community acceptability rating of interventions targeted by public health department(s). Tables III.B-D rates intervention acceptability to the community by public health priority. Table IV summarizes public health department implementation potential for each intervention.

Table I. Likelihood of Saving Lives Implementing Highly Rated Public Health Interventions

Public Health Priorities	Possible Number of Deaths Averted	Potential Intervention Delivery and Coverage	Strength of Evidence[a]	Baseline	Intervention Delivery and Coverage Applied to Annual Lives Saved[b]	Community Acceptability (Table III)
Tobacco	435,000 (8)	1.5-5.6% (smokers)	A	All smokers: 18.2% Adults: 22.8%(8) HS students: 23.0% (33)	1,000-272,400	57-94%
Diabetes/ Obesity	365,000 (8)	0.12-3.9%	B-A	59% overweight/obese(34)[c] 6.0-9.0% adult diabetics (34-36)	600-158,000	63-80%
Public Health Clinical Services	140,000 (6)[d]	0.27-31.4%	B-A	HD & Aspirin Use: 3.8% Diabetics using Aspirin Use: 5.6% (34-37)	2,800-140,000	69-94%

[a] Intervention-specific "strength of evidence" is based upon recommendations from various national efforts to evaluate the efficacy evidence: The Community Guide to Preventive Services(9), Clinical Preventive Services Task Force (10-17), the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (18), and others (19). A=strong evidence; B=sufficient evidence

[b] These annual lives saved may be augmented when interventions are implemented in concert

[c] Overweight : BMI=25-29.9; obese: BMI≥30.0

[d] The average of deaths attributable to the factors of low education, low social support, individual level poverty, and income inequality

Table II.A. Tobacco Intervention Delivery and Coverage Worksheet					
Interventions	**Proportion of Population At Risk**	**Intervention Uptake**	**Reachable**	**Effectively Served**	**Percent of Population Affected (Subgroup)**
Increase Price of Tobacco Products (4, 39, 40)	18.2% [c]	8%	99%	95%	1.5% [a] (smokers)
Limit Youth Access to Tobacco (4, 38)	7.1%	90%	95%	95%	5.7% (youth smokers)
Avert Exposures to Second and Third-Hand Smoke (4, 40, 41)	43% 1.7% (children)	10%	75%	85%	2.7% (passive smokers) 0.1% (passive smokers-children)
"5 As" Approach to Cessation (20, 42, 43)	20%	50%	90%	50%	4.5% (smokers)
Limit Visibility of Tobacco (4, 38)	100%	90%	70%	10%	6.3% [a] (population) 1.6% [b] (children) 1.3% (smokers)

[a] Prevalence in entire population

[b] Youth, 15-19 year olds =7.1%, children, <15 years =20% of the population

[c] Age weighted smoking prevalence in the whole population

Table II.B. Diabetes/Obesity Intervention Delivery and Coverage Worksheet					
Interventions(22)	**Proportion of Population At Risk**	**Intervention Uptake**	**Reachable**	**Effectively Served**	**Percent of Population Affected (Subgroup)**
Clinical Screening and Weight Loss Counseling (15, 43)(overweight and obese)	Population[a]: 58% Children:17% (22) Adults:73% (22)	20%	Children: 90% Adults: 68.3% (44) Population: 74.2%	50%	4.3% (population) 1.5% (overweight children) (22) 5.0% (overweight adults)
Shift to Healthier Diets (fruits and vegetables) (4, 22, 43)	76.5%	10%	10%	50%	4.8% (unhealthy eaters) (25, 45)
Enhanced Physical Activity (4, 13)	No leisure time PA: 60.7% (44) No exercise: 75.8% (44)	10%	10%	20%	0.1% (exercisers) 0.2% (engaged in PA) (13, 22, 25, 45)
Enhanced Glycemic Control through Disease and Case Management (12, 14, 25, 28, 46)	8.4% (44)	50%	50%	20% (28, 46)	0.4% (diabetics) (12, 25)
Access to Places for Physical Activity (4, 13)	75%	10%	20%[b]	1.27 times [b](22, 29)	1.9 % population (22)

[a] Age weighted prevalence

[b] Depends greatly on the amount of community area revamped

Table II.C. Clinical Public Health Services Delivery and Coverage Worksheet					
Interventions	**Proportion of Population At Risk**	**Intervention Uptake**	**Reachable**	**Effectively Served**	**Percent of Population Affected (Subgroup)**
Vaccine Delivery (9, 43)	Flu, population: 100% Flu, adults >64: 31.9% Pneumo vaccine, adults >64: 12.4%	Flu, population: 69.8 Flu, adults >64: 69.8% Pneumo, adults >64: 68.1%	Influenza: 50% Pneumo: 85%	90% 90%	53% (population) 6.6% (adults>64) 2.3%pneumo (adults >64)
Clinical Reminder Systems for Preventive Care (9)	72% (47)	50%	100%	50%	19%
Colorectal Cancer Screening (43, 48)	Adults over 50: 24%	Adults over 50: 62.6% (49)	10%	85%	1% population
Screening and Treatment for Hypertension (2, 16, 18, 43)	HBP: 29.6% HD: 1.7%	67%	67%	85%	11.2% (population) 0.4% (HD0.7% (diabetes)
Aspirin for Those with Heart Disease (2, 17, 43)	HD: 3.7% diabetes: 3.1%	At-risk, HD: 64.8% (37) At-risk, diabetes: 37.4% (37)	80%	85%	1.2% (HD) 0.3% (diabetes)[a]
[a] PLUS >8% decline in cancer among 20 yr aspirin users (50)					

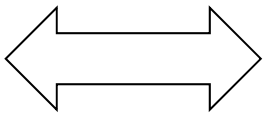
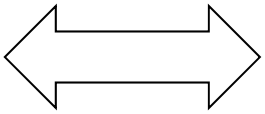
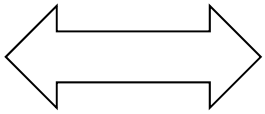
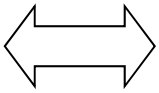
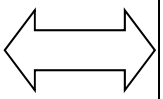
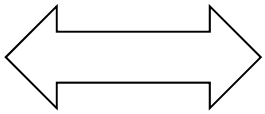
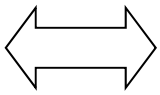
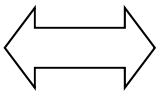
Table III.A. Community Acceptability Rating of Interventions Targeted by Public Health Department(s) (PHD)					
Acceptability Components	*****	****	***	**	*
Applicability to health departments	Consonant with PHD mission and traditional roles	Perhaps new to PHD repertoire but similar in characteristics to other interventions/ populations	General consensus that the activity is worthwhile but the implementation lacks enthusiasm from all sectors	Genuine difference of local opinion about PHD role in the intervention	Viewed as outré and not helpful to the community or whole population
Utility to local health departments	Similar target population, personnel required that PHD already uses				Target population and necessary personnel is totally new to the PHD
Reliability of implementation	One implementation protocol fits all				Implementation protocol for each community, subpopulation, time period, etc
Ease of monitoring implementation	Simple, straightforward intervention				Intricate intervention with many steps, a hierarchy of implementation or many contacts
Applicable to a broad range of communities	Variability of intervention uptake is low		Variability of intervention uptake is moderate		Variability of intervention uptake is high
Low controversy potential	Addresses protection of the entire population				Addresses illegal activity, a subpopulation in disfavor, or uses an intervention with dis-benefits
Low resource or cost requirement	High cost, intensity of trained personnel, or many FTEs		Moderate cost, intensity of trained personnel, or FTEs		Low cost, intensity of trained personnel, or few FTEs

Table III.B. Community Acceptability of Tobacco Interventions Targeted by Public Health Department(s)					
	Increase Price of Tobacco Products (4, 39, 40)	**Limit Youth Access to Tobacco (4, 38)**	**Avert Exposures to Second and Third-hand Smoke (4, 40, 41)**	**"5 As" Approach to Cessation (20, 42, 43)**	**Limit Visibility of Tobacco (4, 38)**
Applicability to health departments	State***** Local*	*****	*****	****	**
Utility to local health departments	*****	**	**	****	**
Reliability of implementation	*****	***	Public areas ***** Homes*	****	**
Ease of monitoring implementation	*****	****	Public areas ***** Homes*	***	***
Applicable to a broad range of communities	*****	*****	*****	*****	****
Low controversy potential	***	*****	****	*****	***
Low resource or cost requirement	*****	*****	*****	**	****
Overall Rating	83-94%	83%	66-89%	77%	57%

***** means best; *worst. These are qualitative ratings; percentages are provided to make consistent with other numerical ratings. A health department could insert a different estimation based upon their access to certain populations or current programming levels. To convert individual qualitative rating (stars) to a quantitative rating, 5 stars=80-100%, 4 stars=60-80%, 3 stars=40-60%, 2 stars= 20-40%, and 1 star=0-20%.

Table III.C. Community Acceptability of Diabetes/Obesity Interventions Targeted by Public Health Departments(s)					
	Clinical Screening and Weight Loss Counseling (15)	**Shift to Healthier Diets (22)**	**Enhanced Physical Activity (13)**	**Enhanced Glycemic Control through Disease and Case Management (12, 14, 28, 46)**	**Access to Places for Physical Activity (13)**
Applicability to health departments	****	****	***	***	**
Utility to local health departments	****	***	***	***	**
Reliability of implementation	***	**	**	***	**
Ease of monitoring implementation	****	**	**	****	**
Applicable to a broad range of communities	*****	*****	*****	***	*****
Low controversy potential	*****	****	*****	*****	*****
Low resource or cost requirement	***	*****	*****	**	****
Overall Rating	80%	71%	71%	66%	63%

***** means best;*worst. These are qualitative ratings; percentages are provided to make consistent with other numerical ratings. A health department could insert a different estimation based upon their access to certain populations or current programming levels. To convert individual qualitative rating (stars) to a quantitative rating, 5 stars=80-100%, 4 stars=60-80%, 3 stars=40-60%, 2 stars= 20-40%, and 1 star=0-20%.

Table III.D. Community Acceptability of Clinical Public Health Interventions Targeted by Health Department(s)					
	Vaccine Delivery (9)	**Clinical Reminder Systems for Preventive Care (9)**	**Colorectal Cancer Screening (48)**	**Screening and Treatment for Hypertension (16, 18)**	**Aspirin for Those with Heart Disease (17)**
Applicability to health departments	*****	****	*****	***	**
Utility to local health departments	*****	*****	**	***	**
Reliability of implementation	****	****	*****	***	*****
Ease of monitoring implementation	****	*****	***	***	***
Applicable to a broad range of communities	*****	***	*****	*****	****
Low controversy potential	*****	*****	***	****	***
Low resource or cost requirement	*****	***	***	****	*****
Overall Rating	94%	83%	74%	71%	69%
***** means best;*worst. These are qualitative ratings; percentages are provided to make consistent with other numerical ratings. A health department could insert a different estimation based upon their access to certain populations or current programming levels. To convert individual qualitative rating (stars) to a quantitative rating, 5 stars=80-100%, 4 stars=60-80%, 3 stars=40-60%, 2 stars= 20-40%, and 1 star=0-20%.					

Table IV. Summary of Public Health Department Implementation Potential for Each Intervention			
Interventions	**Potential Intervention Delivery and Coverage**	**Community Acceptability (Table III)**	**Deaths Averted**
Tobacco	1.5-5.6% (smokers)	57-94%	1,000-272,400
Increase Price of Tobacco Products (4, 39, 40)	1.5% (smokers)	83-94%	35,900
Limit Youth Access to Tobacco (4, 38)	5.7% (youth)	83%	70,500
Avert Exposures to Second and Third-hand Smoke (4, 40, 41)	2.7% (passive smokers) 0.1% (children)	66-89%	1,000-27,300
"5 As" Approach to Cessation (20, 42, 43)	4.5% (smokers)	77%	107,600
Limit Visibility of Tobacco (4, 38)	6.3% 1.6% (children) 1.3% (smokers)	57%	7,000- 31,100
Diabetes/Obesity	0.12-3.9%	63-80%	600-158,000
Clinical Screening and Weight Loss Counseling (15)	4.3% 1.5% (overweight children) (22) 5% (overweight adults)	80%	25,000-107,400
Shift to Healthier Diets (22)	4.8% (healthy eaters) (25, 45)	71%	22,900
Enhanced Physical Activity (13)	0.1% (exercise) 0.2% (Leisure time PA) (13, 22, 25, 45)	71%	600-1,000
Enhanced Glycemic Control through Disease and Case Management (12, 14, 28, 46)	0.4% (diabetics) (12, 25)	66%	17,400
Access to Places for Physical Activity (13)	1.9% population (22)	63%	9,300
Clinical Public Health Services	0.27-31.4%	69%-94%	2,800-140,000*
Vaccine Delivery (9)	Flu: 53% (population) Flu: 6.6% (adults >64) Pneumo: 2% (adults >64)	94%	2,800-74,200
Clinical Reminder Systems for Preventive Care (9)	19%	83%	35,000
Colorectal Cancer Screening (48)	1% population	74%	5,800
Screening and Treatment for Hypertension (16, 18)	11.2% (population) 0.4% (HD) 0.7% (diabetes)	71%	11,600-53,000
Aspirin for Those with Heart Disease (17)	1.2% (HD) 0.3% (diabetes)	69%	5,000-28,500
*The sum of all interventions was rounded to 140,000, the total estimated in this category. This is due to some services delivered to any person, irrespective of their ability to pay.			

Conclusion

It must be stressed that the foregoing estimates are based on evidence and data from the literature but translation to an individual field setting is likely to be highly variable. In addition, the intention of this exercise was to assist with prioritizing interventions for "public health" generally and adjustments to the numbers might be made for individual locations considering the implementation of interventions based on local considerations. Not a small factor to consider is how broadly to scope public health activities, anticipated effects will naturally be larger if the entire population of a community is targeted and smaller if the reach of the local health department is more circumscribed. Nevertheless these calculations offer insights into some public health activities that may yield saved lives or deaths averted.

Notably, tobacco use prevention and cessation still play a major role in protecting population health and many communities still are far from Healthy People no tobacco goals (51, 52) and have not implemented evidence-based, effective policy interventions to limit smoking and exposure of children (53). By the numbers, public health can be instrumental in creating environments where people do not take up smoking and are not exposed to environmental smoke, and where those addicted may receive assistance to quit.

Traditional services provided by health departments, especially those targeted to the poor and underserved, still provide great benefit to the population and the range of choices is broad -- from vaccines to screening for chronic disease to delivering a simple pill to facilitating provider reminder systems. Hypertension detection was a public health priority in the 1970s and most people do have their blood pressure measured today but treatment and control remains a need. High blood pressure is just one risk factor for heart disease and may be addressed with clinical services delivered by health departments alone or in concert with others (e.g., high cholesterol, etc.). Capacity to perform these services will prove especially valuable in a time of potential pandemics and affordable health care.

A priority area of diabetes and overweight/obesity has been highlighted, as in the past years the problem has grown and continues to grow. Significant opportunity exists to reduce the burden from both of these highly intertwined conditions that range from community-based to individual directed programming. Communities seeking to address these conditions have several effective venues to select from and could potentially integrate other chronic disease risk factors into their program.

Public health as a profession is known for protecting health and these interventions offer opportunities with a solid basis for success. Public health priorities are also determined by cost, effort, expertise, fit with the community's need and other factors. Using this list there is probably an intervention for each health department or at least a hint as to where to look and what to consider when seeking other interventions.

List of References

1. Public Health Accreditation Board. Public Health Accreditation Board. Alexandria, VA; 2011.
2. Farley TA, Dalal MA, Mostashari F, Frieden TR. Deaths preventable in the U.S. by improvements in use of clinical preventive services. Am J Prev Med 2010;38(6):600-9.
3. Frieden TR. A framework for public health action: the health impact pyramid. Am J Public Health 2010;100(4):590-5.
4. Frieden TR, Myers JE, Krauskopf MS, Farley TA. A public health approach to winning the war against cancer. Oncologist 2008;13(12):1306-13.
5. Williams R. CDC's Thomas Frieden--protecting health and reducing costs. Lancet 2010;376(9754):1731.
6. Galea S, Tracy M, Hoggatt KJ, Dimaggio C, Karpati A. Estimated deaths attributable to social factors in the United States. Am J Public Health 2011;101(8):1456-65.
7. CDC. Ten great public health Achievements -- United States, 2001-2010. MMWR Morb Mortal Wkly Rep 2011;60(19):619-623.
8. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. Jama 2004;291(10):1238-45.
9. United States Task Force on Community Preventive Services. The Community Guide: What works to promote health. In. Atlanta, GA: Centers for Disease Control and Prevention (Community Guide Branch); April 11, 2011.
10. Selby JV, Friedman GD. US Preventive Services Task Force. Sigmoidoscopy in the periodic health examination of asymptomatic adults. Jama 1989;261(4):594-601.
11. Smith RA, Cokkinides V, Brawley OW. Cancer screening in the United States, 2008: a review of current American Cancer Society guidelines and cancer screening issues. CA Cancer J Clin 2008;58(3):161-79.
12. Task Force on Community Health Services. Recommendations for healthcare system and self-management education interventions to reduce morbidity and mortality from diabetes. Am J Prev Med 2002;22(4 Suppl):10-4.
13. Task Force on Community Preventive Services. Recommendations to increase physical activity in communities. American Journal of Preventive Medicine 2002;22(4S):67-72.
14. Task Force on Community Preventive Services. Diabetes Prevention and Control: Case mangement Interventions to Improve Glysemic Control. In; 2011.
15. US Preventive Services Task Force. Screening for Obesity in Adults: Recommendations and Rationale. Ann Intern Med 2003;139(11):930-2.
16. US Preventive Services TAsk Force. Screening for High Blood Pressure: USPSTF recommendation statement. Ann Intern Med 2007;147:783-86.
17. US Preventive Services Task Force. Aspirin for the Prevention of Cardiovascular Disease. Topic Page. In; December 2009.
18. US DHHS (NIH). Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7 Express). Bethesda, MD: NIH (NHLBI); 2003. Report No.: NIH Publication No. 03-5233.
19. Dick JJ. Weight loss interventions for adult obesity: evidence for practice. Worldviews Evid Based Nurs 2004;1(4):209-14.
20. Fiore MC, Croyle RT, Curry SJ, Cutler CM, Davis RM, Gordon C, et al. Preventing 3 million premature deaths and helping 5 million smokers quit: a national action plan for tobacco cessation. Am J Public Health 2004;94(2):205-10.

21. Doroshow JH, Croyle RT, Niederhuber JE. Five strategies for accelerating the war on cancer in an era of budget deficits. Oncologist 2009;14(2):110-6.
22. Khan LK, Sobush K, Keener D, Goodman K, Lowry A, Kakietek J, et al. Recommended community strategies and measurements to prevent obesity in the United States. MMWR Recomm Rep 2009;58(RR-7):1-26.
23. American Heart Association. Weight control equals diabetes control. Heart Insight 2011;5(3):12-15.
24. Baron RC, Rimer BK, Coates RJ, Kerner J, Kalra GP, Melillo S, et al. Client-directed interventions to increase community access to breast, cervical, and colorectal cancer screening a systematic review. Am J Prev Med 2008;35(1 Suppl):S56-66.
25. Anderson AS. How to implement dietary changes to prevent the development of metabolic syndrome. Br J Nutr 2000;83 Suppl 1:S165-8.
26. Vilnius D, Dandoy S. A priority rating system for public health programs. Public Health Rep 1990;105(5):463-70.
27. Barker LE, Kirtland KA, Gregg EW, Geiss LS, Thompson TJ. Geographic distribution of diagnosed diabetes in the U.S.: a diabetes belt. Am J Prev Med 2011;40(4):434-9.
28. Norris SL, Nichols PJ, Caspersen CJ, Glasgow RE, Engelgau MM, Jack L, et al. The effectiveness of disease and case management for people with diabetes. A systematic review. Am J Prev Med 2002;22(4 Suppl):15-38.
29. Adams MA, Sallis JF, Kerr J, Conway TL, Saelens BE, Frank LD, et al. Neighborhood environment profiles related to physical activity and weight status: a latent profile analysis. Prev Med 2011;52(5):326-31.
30. van der Veen YJ, de Zwart O, Mackenbach J, Richardus JH. Cultural tailoring for the promotion of hepatitis B screening in Turkish Dutch: a protocol for a randomized controlled trial. BMC Public Health 2010;10:674.
31. Resnicow K, Davis R, Zhang N, Tolsma D, Alexander G, Wiese C, et al. Tailoring a fruit and vegetable intervention on ethnic identity: results of a randomized study. Health Psychol 2009;28(4):394-403.
32. Lairson DR, DiCarlo M, Myers RE, Wolf T, Cocroft J, Sifri R, et al. Cost-effectiveness of targeted and tailored interventions on colorectal cancer screening use. Cancer 2008;112(4):779-88.
33. Eaton DK, Kann L, Kinchen S, Ross J, Hawkins J, Harris WA, et al. Youth risk behavior surveillance--United States, 2005. J Sch Health 2006;76(7):353-72.
34. Balluz L, Ahluwalia IB, Murphy W, Mokdad A, Giles W, Harris VB. Surveillance for certain health behaviors among selected local areas--United States, Behavioral Risk Factor Surveillance System, 2002. MMWR Surveill Summ 2004;53(5):1-100.
35. Jankowich M, Choudhary G, Taveira TH, Wu WC. Age-, race-, and gender-specific prevalence of diabetes among smokers. Diabetes Res Clin Pract 2011.
36. Schwartz F, Ruhil AV, Denham S, Shubrook J, Simpson C, Boyd SL. High self-reported prevalence of diabetes mellitus, heart disease, and stroke in 11 counties of rural Appalachian Ohio. J Rural Health 2009;25(2):226-30.
37. Ajani UA, Ford ES, Greenland KJ, Giles WH, Mokdad AH. Aspirin use among U.S. adults: Behavioral Risk Factor Surveillance System. Am J Prev Med 2006;30(1):74-7.
38. Cigarette use among high school students - United States, 1991-2009. MMWR Morb Mortal Wkly Rep 2010;59(26):797-801.
39. Carpenter C, Cook PJ. Cigarette taxes and youth smoking: new evidence from national, state, and local Youth Risk Behavior Surveys. J Health Econ 2008;27(2):287-99.
40. Tauras JA. Public policy and smoking cessation among young adults in the United States. Health Policy 2004;68(3):321-32.

41. Services USDoHaH. Prevalence of exposure to secondhand smoke. In: Children and secondhand smoke exposure. Rockville, MD: Office of the Surgeon General; 2007.
42. Jaen CR, McIlvain H, Pol L, Phillips RL, Jr., Flocke S, Crabtree BF. Tailoring tobacco counseling to the competing demands in the clinical encounter. J Fam Pract 2001;50(10):859-63.
43. Maciosek MV, Coffield AB, Edwards NM, Flottemesch TJ, Goodman MJ, Solberg LI. Priorities among effective clinical preventive services: Results of a systematic review and analysis. Am J Prev Med 2006;31(1):52-61.
44. Li C, Balluz LS, Okoro CA, Strine TW, Lin JM, Town M, et al. Surveillance of certain health behaviors and conditions among States and selected local areas --- behavioral risk factor surveillance system, United States, 2009. MMWR Surveill Summ 2011;60(9):1-250.
45. Sargent GM, Pilotto LS, Baur LA. Components of primary care interventions to treat childhood overweight and obesity: a systematic review of effect. Obes Rev 2011;12(5):e219-35.
46. Norris SL, Nichols PJ, Caspersen CJ, Glasgow RE, Engelgau MM, Jack L, et al. Increasing diabetes self-management education in community settings. A systematic review. Am J Prev Med 2002;22(4 Suppl):39-66.
47. Schoen C, Osborn R, Huynh PT, Doty M, Peugh J, Zapert K. On the front lines of care: primary care doctors' office systems, experiences, and views in seven countries. Health Aff (Millwood) 2006;25(6):w555-71.
48. Pignone M, Sox HC. Screening guidelines for colorectal cancer: a twice-told tale. Ann Intern Med 2008;149(9):680-2.
49. Rim SH, Joseph DA, Steele CB, Thompson TD, Seeff LC. Colorectal cancer screening - United States, 2002, 2004, 2006, and 2008. MMWR Surveill Summ 2011;60 Suppl:42-6.
50. Rothwell PM, Fowkes FG, Belch JF, Ogawa H, Warlow CP, Meade TW. Effect of daily aspirin on long-term risk of death due to cancer: analysis of individual patient data from randomised trials. Lancet 2011;377(9759):31-41.
51. Department of Health and Human Services (National Prevention HP, and Public Health Council),. National Prevention Strategy: America's Plan for Better Health and Wellness Washington, DC: US DHHS; June 16, 2011.
52. Kanarek N, Fitzek B, Su SC, Brower M, Jia H. County lung cancer mortality: a decision tree model for control and prevention. J Public Health Manag Pract 2008;14(4):E1-9.
53. Foundation ANR. Chronological Table of US Population Protected by 100% Smokefree State or Local Laws. In; July 1, 2011.