What Does "Smart Growth" Really Mean?

By Anthony Downs

C an groups as different as homebuilders and transit advocates be using the term in the same way? The answer is no—prompting one expert to offer advice about how to resolve deep conflicts.

Throughout the United States, the term "smart growth" is being adopted by groups trying to change what they regard as the undesirable impacts of "suburban sprawl." Under the umbrella of this appealing term, groups with very different goals are trying to create the appearance of a united front. But in reality, that umbrella is being pulled apart—to the detriment of public policy and the public itself.

Still, there is always cause for optimism. Even with different goals, the different groups may be able to reach a middle ground, especially if they keep in mind that each region of the country has unique needs and wide choices.

Consider these four groups:

• *Anti- or slow-growth advocates and environmentalists* are upset by the impacts of suburban sprawl. They want to slow down outward expansion and cut dependence on private automobiles.

• *Pro-growth advocates*, including home builders, developers, chambers of commerce, and landowners who aren't much upset by sprawl want to expedite outward expansion to accommodate future growth fully.

• *Inner-city advocates* such as central city mayors, downtown business leaders, community-based organizations, and city planners are upset about resources being drained from the inner city by our outward growth process. They want more redevelopment in core areas.

• *Better-growth advocates*—those who want to accommodate reasonable growth but want to reduce some of its negative impacts—include many citizens who are not passionate members of the other three groups. Major employers often fall into this category.

Who can oppose smart growth—since its opposite is "dumb growth"? But in fact, across the nation, this term refers to many different bundles of specific policies. A survey of how different groups define smart growth reveals that this term involves 14 basic elements. No group advocates all 14, but each element is advocated by someone and is worth noting.
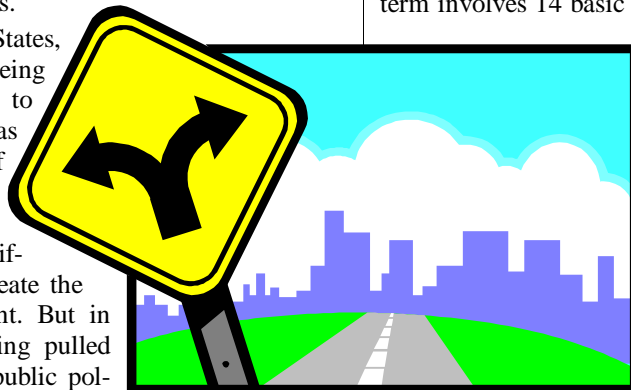
Bones of Contention

T hree elements provoke wide disagreement:

• *Placing limits on the outward extension of further growth*. Many anti-sprawl advocates support urban growth boundaries, utility service districts, or local growth boundaries. They think such limits will reduce infrastructure costs, shorten distances between new suburban jobs and unemployed city workers, shorten future commuting times, preserve vacant land and open space, and create higher densities. Pro-growth advocates oppose spatial limits because they want to build new subdivisions on the cheapest possible land.

In reality, no specific approach to creating limits fits all regions. In Florida, limiting growth into the Everglades seems prudent. But in Albuquerque, where the best open space is in the region's center, limiting outward growth is not sensible.

Also, limiting outward growth would not accomplish all the goals its advocates want. It would not cut average com-

muting times much, since the shortest times are between suburban housing and suburban jobs. It might protect farmland from urban uses, but there is no national shortage of farmland. It might shorten commuting distances for inner-city workers, but they need cars or better transit more. Growth limits also would prevent building low-cost new housing units on cheap land. To work well, outward growth limits must involve the entire region, not just individual localities acting separately. Separate limits adopted by individual localities will just spread sprawl farther. And state laws must prohibit most new development outside the growth boundary or developers will leapfrog over it.

• *Financing the additional infrastructure needed to deal with growth and maintain existing systems properly.* Most anti- or slow-growth and inner-city advocates propose loading the infrastructure costs of growth almost entirely onto new developments via user fees and exactions. Pro-growth advocates propose sharing these costs with existing residents, who benefit from better facilities. Inner-city advocates want most public infrastructure funds to be spent on repairing and maintaining existing systems rather than building new ones.

If the guiding principle should be "those who benefit should also pay," then at least some cost-sharing with existing residents seems fairest because those residents use new infrastructure, too.

• *Reducing dependency on private automotive vehicles, especially one-person cars.* The usual tactics advocated are requiring higher density future development, clustering high density around transit stops, raising gas taxes, shifting money

from road building to more transit, creating pedestrian-friendly communities, and building light-rail systems. Anti- or slow-growth advocates strongly promote these tactics, while many pro-growth advocates support added emphasis on public transit while also arguing that existing roads should be upgraded and new ones built.

Achieving the goals of anti- or slow-growth advocates will be extremely difficult. Future residential development density would have to be well over 5,000 persons per square mile and perhaps more than 10,000 to make heavier transit use feasible, but that will not be easy. The average 1990 density of the 161 largest central cities in the U.S. was 3,924 persons per square mile. Only 32 had densities more than 5,000 persons per square mile, and only six had densities more than 10,000. In the fringe areas around the same cities, the average 1990 density (the most recent figures available) was 1,840 persons per square mile, and only one (the Los Angeles fringe) had a density above 5,000.

Clustering higher density around transit stops is often blocked by neighborhood opposition. Raising gas taxes to drive people out of their cars is a political non-starter. Moving more funds to transit is questionable since transit now gets 25 percent of all public transport spending while providing under 2 percent of all person trips—though higher fractions in regions with large-scale transit systems such as New York, Washington, Chicago, and San Francisco.

Partial Disagreements

Seven elements attract less-than-total agreement, especially in how they are implemented:

• *Promoting compact, mixed-used development* in the form of higher-than-prevailing residential densities and permission to mix nonresidential uses—especially retail and services—in primarily residential neighborhoods. Compact development seems good because it reduces infrastructure costs, shortens trip lengths, encourages walking and bicycling, may make more use of public transit feasible, and increases the choice of housing types and lifestyles available in new-growth areas.

Environmentalists and urban planners strongly support this element, whereas many home builders and developers support it to some extent, as long as they are permitted to create low-density developments in other parts of the region. Anti- and slow-growth advocates support higher residential densities in theory, but often reject them when they are proposed for their own neighborhoods.

• *Creating significant financial incentives for local governments to adopt "smart growth" planning within ground rules laid out by the state government.* These incentives consist of state aids for infrastructure construction and other benefits accruing to localities that designate some areas for future development, and other parts for open space.

This element is the cornerstone of Maryland's decentralized Smart Growth program. It uses such incentives to motivate individual localities within a framework set by state law, rather than having any overarching regional or state agency coordinate local government plans.

- *Adopting fiscal resource sharing among localities* to equalize the financial situation of individual governments within the region and to discourage their pursuing land uses solely to build tax base.

Only one major metropolitan area—the Twin Cities—has adopted this arrangement at any scale. So this element does not appear to have much support, partly because its adoption creates strong conflicts of interest between wealthy suburbs and poorer ones.

- *Deciding who should control land-use decisions.* In most regions, all four advocacy groups support leaving full control over land uses in the hands of local governments. In some regions, anti- or slow-growth advocates support some form of regional coordination of local government plans, but most pro-growth advocates oppose such arrangements.

I believe regional coordinating mechanisms are necessary. But that view is not widely held except in regions that have had growth crises, such as Atlanta and South Florida.

- *Adopting faster project application approval processes, providing developers with greater certainty and lower project carrying costs.* Pro-growth advocates strongly support this strategy. In fact, they may agree to other strategies if they can win on this one.

- *Creating more affordable housing in outlying new-growth areas.* To do this, suburban communities must reduce regulatory barriers to both multifamily housing and lower cost single-family housing, and allow higher densities in new-growth and infill areas. One inexpensive tactic is permitting owners of single-family homes to create auxiliary rental units.

Anti- or slow-growth advocates theoretically support higher densities, and developers want to reduce regulatory barriers in order to lower building cost, so environmentalists and developers may have a middle ground on this element. However, many suburban anti- or slow-growth advocates oppose any affordable housing within their communities.

Further, most residents of new-growth areas want low densities in order to raise home values, and residents of existing areas often fight higher densities on infill sites. The bottom line: Because affordable housing is not high on the priority lists of any of the advocate groups, it is often omitted from their smart growth goals.

- *Developing a public-private consensus-building process* in order to build support for a single, clear definition of the specific elements of smart growth within each region. There is often considerable disagreement about the proper way to carry out this element.

Saying Yes

Finally, there are four concepts on which most of the advocacy groups agree.

- *Preserving large amounts of open space and protecting the quality of the environment.* Environmentalists want to set aside large fringe areas where development is prohibited. The real estate community supports preserving open space as long as plenty of other fringe land is available for development.

This is a critically important element for many environmental and anti- or slow-growth groups, and few people openly oppose such policies.

- *Redeveloping inner-core areas and developing infill sites* with new and renovated structures to make them more attractive to middle- and upper-income households, and to improve the quality of life for existing low-income residents. This includes shifting a lot of new development from fringe areas to infill sites, cleaning up and redeveloping polluted brownfield sites, and locating most new public offices and other facilities in developed areas rather than on urban fringes.

This element is crucial to inner-city advocates and supported somewhat less avidly by the other three groups. It means encouraging more downtown housing, dismantling obsolete high-rise public housing projects, and preserving historic structures and districts.

- *Removing barriers to urban design innovation in both cities and new suburban areas* by encouraging pedestrian-friendly communities, mixed land uses, town centers, and other design elements that make communities more interesting. This element would permit New Urbanist developers to use grid street patterns, alleys, porches, etc., and would make creation of affordable housing much easier.

This element is important because existing zoning and subdivision rules often prevent mixed-use developments, block new multifamily housing, raise the costs of new single-family dwellings, make clustering high-density development around transit stops impossible, and impede creation of pedestrian-friendly subdivisions.

- *Creating a greater sense of community* within individual localities and neighborhoods *and a greater recognition of regional interdependence and solidarity* throughout the entire metropolitan area.

This is the most abstract and difficult to measure element in smart growth strategies, so it is often omitted as an explicit ingredient. Yet many advocates in all four groups believe achieving this element is vital to making all the other elements work effectively. Without some greater recognition by citizens in individual localities of their crucial economic, social, and even physical linkages with the rest of their region, continued parochialism in land-use decisions will make effective solutions to growth-related problems impossible.

Why We Should Care

When a region's population rises sharply, as in Phoenix, Denver, Seattle, Atlanta, South Florida, and Las Vegas, existing residents often become upset by resulting negative conditions, and so smart growth has

become a matter of widespread concern. These conditions include rising traffic congestion, greater air pollution, higher taxes, rising housing prices, shortages of affordable housing, disappearance of open space, and decay in inner-core areas. A natural reaction is to try to slow future growth, or to change its nature, to prevent these problems from getting worse.

In addition, almost 10 years of continuous economic prosperity have allowed many citizens to disregard their needs for the jobs and income produced by growth, and to concentrate their attention on quality-of-life issues.

Two other factors encourage adoption of anti- or slow-growth policies. One is the desire of homeowners, who politically dominate suburban governments, to keep the prices of their homes rising. They try to keep out low-cost housing and low-income households through exclusionary zoning. The second factor is the desire of local officials to avoid land uses they regard as fiscal losers—such as multifamily housing—and to attract those they regard as fiscal winners, such as office parks and shopping centers.

Not all local governments discourage development. Many central cities and older suburbs want more development in order to gain larger tax bases and more jobs. And some suburban governments get much of their revenue from development fees. But more and more prosperous suburban governments are being pressured by their residents to adopt anti- or slow-growth policies.

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Regional Perspective

In reality, the governments within a region cannot control its rate of growth, which is basically determined by the region's climate, location, topography, size, population, and past investments—as well as the nation's general economic climate. None of these traits can be influenced much by local or even state government policies.

Most fast-growing regions such as Denver and Seattle "suffer" from being very attractive to newcomers, both from other regions of the U.S. and from abroad. Slowing their growth would require making them less attractive, which would injure their existing residents even more than repelling newcomers.

True, individual localities can reduce growth rates within their own borders by passing laws slowing or halting new development. But that merely shifts the region's growth to other communities less hostile to growth, often farther into the countryside. Hence efforts by local governments to halt sprawl actually tend to aggravate it.

Further, our fragmented local governments are motivated to act parochially. Each pays attention only to the welfare of its own residents, not to that of the region as a whole, because only local residents elect local officials.

Still, some elected officials currently support a handful of strategies—such as promoting downtown development, preserving open space, reducing regulatory barriers to lower cost housing and to inner-city development—that can be useful parts of an effective growth-influencing strategy.

The Case for Regional Growth

In most American regions at least some population growth and new development are necessary for economic stability and desirable for local prosperity. In the nation as a whole, natural increase (the excess of births over deaths) is about 0.6 percent of the population each year. Net immigration from abroad has recently equaled about 0.62 percent of the nation's population annually, according to the 2000 census.

The growth is spread unevenly. Fast-growth regions, especially in the West and South, may see increases of more than 2 percent a year in net in-migration.

Regions need new housing and other structures to replace deteriorated and obsolete units. If such units have a 100-year lifetime, they must replace 1 percent of their structures per year. Adding that to the new units required for new residents means that fast-growing regions must build new housing equal to as much as 3 percent of their existing inventories each year.

Such growth produces significant benefits for a region, especially a dynamic economy. More people expand the labor force and increase job choices for workers, as well as attracting firms looking for workers. Growing areas tend to have higher wages than stagnant ones, and eventually attract clusters of firms in the same industries. Thus, the most effective attitude towards rapid growth is "How can our region accommodate growth without suffering so much from the problems that come along with it?"

A Problem Without a Solution

The most aggravating and widely resented of all growth-related problems is rising peak-hour traffic congestion. Unfortunately, there is no feasible remedy for it that most American citizens will accept. Some policies may slow or ameliorate rising congestion, but none will fully prevent it—at least in large metropolitan areas.

Despite the urging of many urban planners, not enough Americans will shift into public transit, no matter how much transit services are improved or expanded. In 1995, according to the U.S. Department of Transportation's Nationwide Personal Transportation Survey, 90 percent of all commuting was done in private vehicles, and only 5 percent by public transit—under 3 percent in many states. Private cars are almost always faster, more comfortable, more convenient, more flexible, and often cheaper than transit.

From 1980 to 1997, according to 1999 *Statistical Abstract of the U.S.,* the nation added 1.2 more cars, trucks, and buses to the vehicle population for every added human being. This trend will undoubtedly continue, unless the U.S. adopts policies deliberately designed to make driving more costly, such as much higher gasoline taxes. Such policies have often been proposed, but generate almost no political support.

Building more roads or adding lanes to existing ones is often a good policy, but it will not relieve peak-hour traffic congestion in a region once traffic jams have appeared there. It is well known that expanded roads simply attract more travelers who converge during peak periods from other routes and times, and that population growth soon fills up new roads.

This does *not* mean that new roads produce no benefits, or that nothing can be done to ameliorate congestion. If employment is clustered, improved transit may serve more commuters. As more jobs move out to the suburbs, suburban commuters may spend less time getting to and from work. Deregulated small-scale transit furnished by entrepreneurs may provide more flexible service to scattered residents. Even so, future population growth is almost sure to cause intensified peak-hour congestion in most large metropolitan areas throughout the world.

In reality, traffic congestion is the result of conflicting goals. These include having a wide range of choices about where to live and work, combining many purposes on each trip, having multiple workers per household, working during the same hours so firms can interact efficiently, and separating homes from households poorer than they are.

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Creating Smart Growth Coalitions

In view of the wide divergences of opinion about the key elements of smart growth, how can all the groups in a region reach agreement on a consistent set of growth-related policies? That is a crucial question now being debated around the nation.

To achieve such consensus, these groups must agree first to discuss what the best smart growth policies for that region should be. Each group must be willing to compromise. The participants should include people from key growth-related organizations in both the public and private sectors, and they should participate not as official representatives but as individuals.

Such a dialogue should probably begin with discussions of the key goals of smart growth policies. Oregon's state-wide planning goals could serve as an example of how such broad goals might be formulated, although each region (or state) should develop its own goals. Then the participants in this dialogue should go over the 14 elements of smart growth listed above and debate the nature and merits of each for their own region.

Once some tentative compromise agreements are reached, the participants should convey the results to their organizations and to the general public. Opportunities for further input should be provided. Eventually, a single set of consistent smart growth policies may emerge.

A basic principle of smart growth should be to accommodate future growth, not choke it off. In particular, smart growth should not cut off all the benefits of sprawl for those who enjoy them. Those benefits include housing on cheaper land, more space, good schools, and shorter commutes. However, each region must develop an areawide approach to coordinating purely local plans and integrating them with transportation planning. This will require a major change of perspective in many regional cultures, especially in the West. On the other hand, smart growth should not mean the same thing everywhere. What is "smart" in New York City may be "dumb" in Phoenix.

No one group should dominate all others. That means each region should create a decisionmaking process that has strong participation from all four advocacy groups.

One of the biggest conflicts among the various advocacy groups is how to allocate available transportation funds. Pro-growth advocates want more roads; anti- or slow-growth advocates want more transit; and inner-core advocates want more maintenance of existing systems. There is no easy way to settle this dispute. That can only be done as part of the political process.**c**

Alcohol, Tobacco, and Other Drug Prevention

Are Kentucky Schools Using Research-Based Curricula?

Editor's Note: *In May, the Centers for Disease Control and Prevention released survey results showing that 22 percent of Kentucky's middle school students reported smoking at least one cigarette in the past month. Compared to the national average, Kentucky middle schoolers are more than twice as likely to smoke cigarettes.*

By Ellen J. Hahn, Mary Kay Rayens, and Robert T. Rasnake

School-based prevention programs are an important element of a comprehensive approach to combat the increasing problem of alcohol, tobacco, and other drug (ATOD) use among youth. Every day, 6,000 young people under 18 years of age try cigarettes, and 3,000 become daily smokers.[1] According to the 1999 National Youth Tobacco Survey, nearly 35 percent of high school students and almost 13 percent of middle school students use some form of tobacco.[2] In 1998, 8.3 percent of youth ages 12-17 reported current marijuana use, representing a significant increase from 1996.[3] Although underage drinking has remained unchanged since 1994, more than one in five (21 percent) youth age 12-17 years were current alcohol users in 1998.[3]

In 1998, the U.S. Department of Education identified four principles of effectiveness that would govern the use of all grant funds from the Safe and Drug-Free Schools and Communities Act.[4] These principles required all funded ATOD programs to conduct a thorough needs assessment, set measurable goals and objectives, use effective research-based programs, and evaluate progress toward meeting goals on a periodic basis. The Centers for Disease Control and Prevention (CDC) recommends that schools provide tobacco use prevention education in kindergarten through 12th grade and that it be especially intensive in middle school and reinforced in high school.[5] The Kentucky Governor's Youth Substance Abuse Prevention Initiative recommends the implementation of science-based practices and programs, and encourages widespread public/private collaboration in prevention activities.[6]

The purpose of this project was to assess the number and type of research-based drug prevention curricula available to Kentucky children enrolled in public and private middle and high schools. Schools that offered research-based curricula

Summary of Research-based Alcohol, Tobacco, and Other Drug Curricula		
Curriculum	**Grade Level**	**Duration**
ALL STARS	6-10	21 core lessons w/ 8 boosters
Growing Healthy	K-6	7 core lessons
Here's Looking At You 2000	K-12	12 lessons per grade level
Know Your Body	K-6	48 lessons per grade level
Kentucky Adolescent Tobacco Prevention Project	7	6 sessions with 3 boosters
The Life Skills Training Program	6-9	30 lessons
Project ALERT	6-8	14 lessons
Project Northland	6-8	22 sessions
Talking with Your Students About Alcohol	5-12	10 sessions
Teenage Health Teaching Modules	6-12	16 modules

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also were asked which grades taught the curriculum and whether all children in that grade received the lessons. Schools were asked if they were interested in assistance on research-based drug prevention curricula.

Research-based Drug Prevention Curricula: A Brief Overview

A list of accepted research-based alcohol, tobacco, and other drug (ATOD) curricula appropriate for grades 6-12 was obtained from the Kentucky Division of Substance Abuse. Ten alcohol, tobacco, and other drug prevention curricula developed and tested with students in 6th-12th grades were selected for this study. The following section briefly summarizes each curriculum.

ALL STARS aims to develop pro-social values, establish appropriate norms and beliefs about substances, build a strong commitment to not use substances, and create a positive social bond between the child and the school. The program uses highly interactive methods that get students involved including an active role for peer opinion leaders. A recent study of ALL STARS suggested a differential impact on substance use, violence, and mediating variables as a function of the type of program deliverer, student ethnicity, and time.[7]

Growing Healthy is a multimedia, comprehensive health program that promotes self-esteem and teaches decisionmaking skills to enable youth to adopt healthy attitudes and behaviors. Methods include a film, a "smoking machine" demonstration, videotapes, and two classroom experiments—a lung dissection for 5th graders and heart dissection for 6th graders. The curriculum stresses the multidimensional aspects of health and emphasizes personal, emotional and social health habits. Growing Healthy has resulted in a 29 percent reduction in tobacco use among middle school students.[8]

Here's Looking at You 2000 (HLAY 2000) is a comprehensive K-12 risk reduction prevention curriculum that addresses the consequences of ATOD use and sources of influence, social skills development, and promotion of school, family, and community bonding. The program uses cooperative team-learning techniques, peer education, critical thinking, cultural sensitivity, and active parent involvement. HLAY 2000 has resulted in a decrease in the use of smokeless tobacco in grades 1-3, a decrease in the use of nicotine, alcohol and marijuana in grades 7-12, and a lower smoking rate in grades 10-12.[9]

Know Your Body consists of five basic components: (1) skills-based health education curriculum, (2) teacher coordi-

nator training, (3) biomedical screening, (4) extracurricular activities, and (5) program evaluation. Methods include behavioral rehearsal, decisionmaking, goal setting, self-esteem building, self-monitoring, stress management, assertiveness training, and other communication skills. After six years of Know Your Body, the rate of cigarette initiation was significantly lower among middle school students than those from nonintervention schools.[10]

Kentucky Adolescent Tobacco Prevention Project (KATPP), based on the social influences model, focuses on tobacco prevention among middle school students in tobacco-producing counties.[11] The program addresses: (a) negative consequences of using cigarettes and smokeless tobacco with emphasis on immediate physical consequences and undesirable social consequences; (b) correction of students' misperceptions regarding normative tobacco-use behaviors; (c) the use of trained peer leaders; (d) refusal skills and assertiveness; (e) types of appeals used by advertisers; (f) active student participation; and (g) student pledges to not use tobacco. KATPP addresses a number of goals and academic expectations mandated by the 1990 Kentucky Education Reform Act (KERA). One study reported a 23 percent reduction in current smoking as a result of KATPP with middle school-aged adolescents.[11]

The *Life Skills Training Program* (LST) is an ATOD prevention program that is based on a multi-factorial causal model of youth ATOD use and Social Learning Theory.[12][13] The LST Program teaches resistance to social influences by addressing personal self-management skills and social skills needed to cope with the environment and to choose healthy alternatives to substance use.[14] The program is highly interactive and focuses on improving the child's knowledge of peer and media pressure, encouraging positive self-image, strengthening communication and assertiveness skills, developing anxiety management skills, and promoting independent thinking to build healthy relationships and to handle social situations with confidence. More than a decade and a half of efficacy research on the LST Program has consistently shown a 50 percent reduction in drug use.[13]

Project ALERT is a video-based, social resistance approach to drug abuse prevention. Project ALERT enables students to: develop reasons not to use drugs, identify pressures to use them, counter pro-drug messages, learn how to say no to external and internal pressures, understand that most people do not use drugs, and recognize the benefits of resistance. Project ALERT reduced the initiation of marijuana and tobacco use by 30 percent and reduced heavy smoking among participants by 50 percent-60 percent.[15][16]

Project Northland is a community-wide, research-based curriculum to prevent adolescent alcohol use. The three-year intervention program includes planned parental involvement, peer-led school-based programs, and community-wide policy changes. Project Northland reduced cigarette use by 37 percent, marijuana use by 50 percent, alcohol use in the past month by 20 percent, and alcohol use in the past week by 30 percent.[17][18]

Talking with Your Students About Alcohol (TWYSAA), changed in 1999 to PRIME for Life!, targets young people who are either engaged in or likely to become involved in

high-risk drinking. Using a combination of interactive presentation and small group discussion, the curriculum focuses primarily on alcohol, but there is a unit on marijuana and cocaine. Ninth graders who received TWYSAA were two times more likely to be nondrinkers by the end of 10th grade and were less likely to report heavy drinking than controls.[19]

Teenage Health Teaching Modules (THTM) is a comprehensive curriculum that addresses violence prevention, tobacco, alcohol, and other drug use, and HIV/AIDS, and allows integration with science, social studies, language arts and home economics classes. Exposure to THTM has resulted in reductions in cigarette smoking, alcohol consumption, and drug use.[20]

Few Kentucky Schools Using Research-based ATOD Curricula

Methods. A list of all public and private schools that served children in grades 6-12 was obtained from the Kentucky Department of Education.[21] Interviewers were recruited from local health departments and from Eastern Kentucky University, and trained to use a standard phone interview protocol. Interviewers were trained in the ethics of interviewing including privacy protection, voluntary participation, and right to withdraw at any time. Interviewers called the schools, explained the purpose of the interview, and asked to speak with the school principal or other appropriate staff person. When contacting the principal or the designee, interviewers explained the purpose and projected length of the interview, invited them to participate, and discussed that findings would be used for program planning. If the principal or designee could not answer most of the questions, another person in the school was identified and invited to participate. The median length of the interviews was 5 minutes, with a range of 1 to 15 minutes.
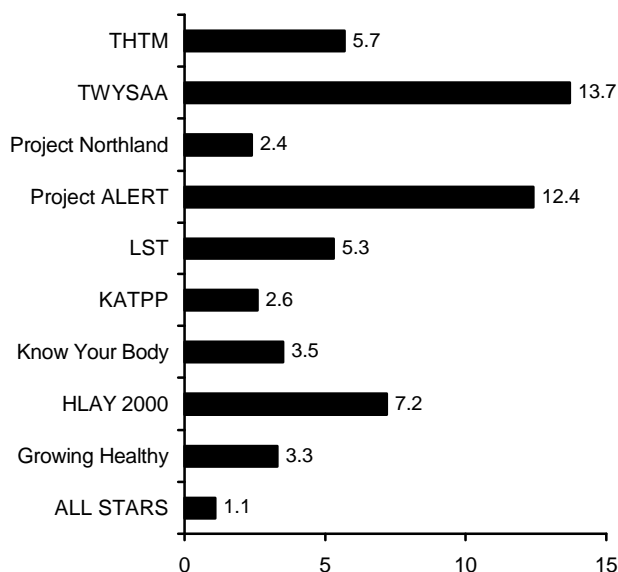
Phone Interview Guide. An interview guide was developed with input from the Kentucky Department for Public Health, the Kentucky Division of Substance Abuse, and the Kentucky Department of Education. Information was collected on the type of school (public or private), grade level (elementary, middle, high), number of students enrolled, county, and date and length of interview. For each of the curricula, three questions were asked:

(a) does your school teach the program?
(b) if yes, in what grade levels is it taught?
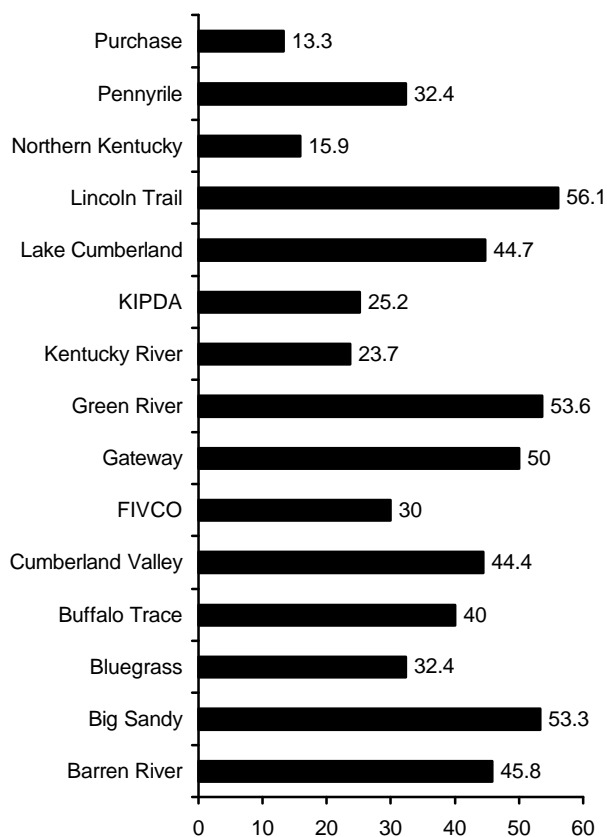(c) if yes, do all children in the grade receive the curriculum?

An open-ended question was used to determine if other research-based ATOD curricula were offered. A final question assessed whether the school was interested in receiving information about research-based ATOD curricula.

Sample. A total of 761 schools serving children in grades 6-12 agreed to participate in phone interviews (participation = 63 percent). The median number of students enrolled was 405, with a range of 1 to 2,100. The majority of schools were public (78 percent) and 22 percent were private. The majority of respondents were principals, assistant or vice principals, administrators, deans, or headmasters (70 percent). Other respondents included guidance counselors (13 percent)

FIGURE 1
Percent of Kentucky Schools Offering Selected Research-Based Curricula, 1999-2000

Curriculum	Percent
THTM	5.7
TWYSAA	13.7
Project Northland	2.4
Project ALERT	12.4
LST	5.3
KATPP	2.6
Know Your Body	3.5
HLAY 2000	7.2
Growing Healthy	3.3
ALL STARS	1.1

FIGURE 2
Percent of Schools with at Least One Research-based ATOD Curriculum by ADD District, 1999-2000

ADD District	Percent
Purchase	13.3
Pennyrile	32.4
Northern Kentucky	15.9
Lincoln Trail	56.1
Lake Cumberland	44.7
KIPDA	25.2
Kentucky River	23.7
Green River	53.6
Gateway	50
FIVCO	30
Cumberland Valley	44.4
Buffalo Trace	40
Bluegrass	32.4
Big Sandy	53.3
Barren River	45.8

and other personnel such as youth service center staff, secretaries, health teachers, and Title I coordinators.

Findings. To determine the number of schools offering a particular research-based ATOD curriculum, schools teaching the curricula in grades not appropriate for the particular program were not included in the analysis. Talking with Your Students about Alcohol (TWYSAA) was the most prevalent curriculum offered in Kentucky schools (14 percent), followed by Project ALERT (12 percent; see Figure 1). Of the 104 middle and high schools that reported offering TWYSAA in grades 5 through 12, 50 percent taught the curriculum with 7th-9th grade students. Almost all schools that offered TWYSAA (90 percent) reported that every child enrolled in the grade level received the curriculum. Of the 94 middle schools that reported offering Project ALERT in grades 6 through 8, over two thirds (69 percent) taught the curriculum with 7th and 8th grade students. Almost all schools that offered Project ALERT (92 percent) reported that every child enrolled in the grade level received the curriculum. ALL STARS, Project Northland, and Kentucky Adolescent Tobacco Prevention Program (KATPP) were the least frequently offered ATOD curricula.

When schools were initially contacted, there was confusion about the term, "Life Skills Training Program." As a follow up to the initial interview, a random sample of 20 percent of the schools that reported teaching the LST Program was contacted to confirm that they taught LST. Only 7 of the 43 schools contacted again reported teaching the LST program. An estimated number of schools teaching the LST Program and an estimated range of schools with at least one research-based ATOD curriculum are reported here.

It is estimated that between 264 and 304 public and private schools serving children in 6th-12th grades (35 percent-40 percent) offer at least one research-based curriculum. The percentage of schools with at least one curriculum varied considerably by region in the state. Figure 2 displays the percentage of schools that offered at least one ATOD curriculum (not including the LST Program) in each of the state's 15 Area Development Districts (ADDs), with a range of 13 percent in Purchase to 56 percent in Lincoln Trail. The association between ADD and percent of schools offering at least one ATOD curriculum was significant (c2 = 59.7; p < 0.001), indicating significant differences in prevalence of research-based ATOD curricula among the ADD regions. The majority of respondents (80 percent) were interested in receiving information on research-based ATOD curricula.

Implications for the Future

Despite the recent controversy about the effects of research-based ATOD curricula on reducing ATOD use,[22-24] schools can play an important role in preventing ATOD use among youth. While curricula are only one element of a comprehensive, community-wide prevention strategy, schools should choose programs that have been shown to be effective even if in the short-term. With limited funds and time, schools cannot afford to provide programs that have not been evaluated or shown to be effective. While curricula-enhancement tools such as school assemblies and computer-based prevention programs may be attractive alter-

natives, they are only appropriate if they complement a properly implemented research-based curriculum.

Policy Options

Schools can play a crucial role in changing pro-alcohol and pro-tobacco norms in Kentucky. Given that community norms, or standards, are influenced by public and private policies, media messages, and public opinion,[25] schools can adopt and enforce policies and mold public opinion that denormalizes alcohol and tobacco use. Site-based councils and school administration need to evaluate not only whether they provide research-based ATOD curricula, but also if the curricula are being properly implemented in a consistent and ongoing manner. It is not merely enough for schools to purchase ATOD curricula, but they must train and monitor the staff charged with implementing the curricula.

In addition to ATOD curricula, schools can adopt and enforce stringent anti-drug policies including tobacco-free environments. School policies that are inconsistently enforced or not enforced at all send a mixed message that ATOD use is socially acceptable. Schools that adopt tobacco-free policies send a powerful message to students, parents, staff, and the community that school leaders view tobacco prevention as important and that they actively discourage tobacco use.[26] The National Association of State Boards of Education recommends that school policies:

   (a) define the purpose and goals of tobacco prevention efforts;
   (b) link effective prevention education to a strictly enforced tobacco-free environment;
   (c) address staff and visitors as well as students;
   (d) identify strategies to help students and staff overcome tobacco addiction; and
   (e) promote coordination among all members of the school community.[26]

The link between ATOD curricula and strictly enforced drug-free policies sends a consistent message that clearly discourages ATOD use. Given that very few Kentucky schools offer research-based ATOD curricula, it is important that school personnel and prevention professionals work together to adopt research-based ATOD curricula and complementary school policies to discourage ATOD use in communities across the Commonwealth.

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Scanning Kentucky

Emerging trends and issues that may affect the Commonwealth's future

Chronic Disease Costly and Often Preventable

Around 5 percent or less of U.S. patients account for over half of medical costs each year, according to a recent article in *The Washington Post*. Most suffer from chronic conditions such as asthma, diabetes, or high blood pressure. By the year 2020, the number of Americans with chronic diseases is expected to increase to 150 million. Clearly, efforts to hold down the health care costs must deal with the chronically ill.

New businesses are emerging to address the anticipated costs of chronic illnesses. FutureHealth, for example, is a "population risk management firm," which, like similar companies, is paid by insurers to help keep costs down by avoiding expensive treatments like surgery when possible. FutureHealth's mission is to identify those patients in an insurance pool who are the most likely candidates for future hospital stays and then do everything feasible to keep them healthy enough to avoid hospitalization.

For the most part, this means encouraging patients to take better care of themselves. The companies are staffed by health care professionals who call and visit patients to encourage them to follow doctors' orders. Of course, staff cannot *make* patients improve their behavior. But they can make healthy behavior easier through personalized attention and positive reinforcement, reminding patients of the need for exams, following up to make sure they are taking their medications properly, doing in-home demonstrations of how to use medical equipment, and arranging in-home nurse visits.

A related *New York Times* article documents the increased incidence of one chronic disease that has devastating and costly consequences. Between 1990 and 1998 the incidence of diabetes among people in their 30s jumped 76 percent. Severe complications make diabetes a substantial public health problem. It is a major cause of blindness, kidney failure, and amputations, and greatly increases the risk of heart disease and stroke. Nationally, the cost of diabetes is estimated at $98 billion a year.

Experts link increases in the rate of diabetes to increased obesity in the population. These experts also note that there are a number of measures that can be taken to curtail the incidence and the consequences of obesity and diabetes. Specifically, it was noted that school-based programs to encourage exercise could help prevent obesity. Dr. Frank Vincor, director of the diabetes division at the Centers for Disease Control and Prevention, said, "We need to ensure that people are informed about healthy choices of foods, that when you build new homes there are sidewalks where people can walk and be active, that schools reinstate physical education and that cafeterias at schools offer healthy foods."

Implications for Kentucky. Kentucky has higher than average rates of diabetes and, not coincidentally, a high rate of obesity, so this chronic disease takes a physical and fiscal toll here. Once again, we face rapidly rising health care costs with profound implications for both state and federal budgets and for the millions of beneficiaries of Medicare and Medicaid. As our population ages, many analysts fear that the already burdensome costs of these programs will consume federal and state budgets. The importance of strategies to prevent and mediate chronic conditions and the costly health care consequences to which they often lead cannot be overstated.

The public promotion of healthy diets, exercise, and the adoption of aggressive anti-smoking strategies are but of few of the ways that state and local governments and community and health organizations can help reduce the toll of chronic illnesses. While people cannot be forced to adopt healthy lifestyles, government clearly has a huge stake in whether they do. Policies that encourage healthy lifestyles and discourage poor health choices may be key to managing the health care costs of the future.

States Tighten Fiscal Belts
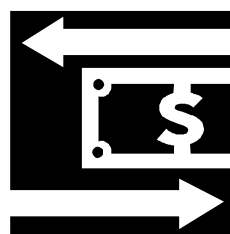
Just a few short years ago, countless lawmakers in state capitols across the country were showing uncharacteristically little fiscal restraint. In Missouri, *The New York Times* reports, the legislature dropped virtually all restrictions on who could qualify for a program that gave a stipend to grandparents acting as foster parents to their grandchildren. Participation skyrocketed from 280 children in August 1999 to 2,239 children in March 2001. Expected to cost $1.4 million through the fiscal year ending in June, the program now costs $19.7 million, and $22.4 million is needed for the next fiscal year. In Louisiana, tens of thousands of students with a B average or better were given free tuition at state colleges; Iowa promised school teachers thousands of dollars in bonuses; and Arizona offered millions in subsidies to help people buy cars that burned cleaner fuels. Some lawmakers say they wish they had paid more attention to how much these programs would ultimately cost. Now, thrown off balance by a suddenly sluggish economy, many states are finding that decisions or promises to spend money when times were flush are coming back to haunt them. And the programs often enjoy considerable public support.

Governors and legislators are trying to rein in commitments for health, social, and environmental programs, college scholarships, prison building and teacher bonuses. As of February, 31 states reported they were spending more than they had budgeted, according to the National Conference of State Legislatures. As many as 23 states may cut budgets or reach into rainy day funds for the first time in years.

Implications for Kentucky. Vigilant oversight of the long-term cost implications of new–and existing–programs, legislation, and regulations should be an ongoing focus of government. Performance audits that routinely evaluate the efficacy of programs that have been given sufficient time to demonstrate outcomes should be routine. When programs fail to produce their intended outcomes, wisdom dictates that they should be revised or ended. As we move into an era when existing government programs will be challenged to meet their missions, a watchful eye on all cost implications is only prudent.

Farm Numbers Down

The number of farms in Kentucky declined by 1,000 between 1999 and 2000, according to the Kentucky Agricultural Statistics Service. The state is home to an estimated 90,000 farms, according to the service. The decrease in the number of farms was attributed to the continuing trend of small farms going out of business. Still, Kentucky ranks fourth in the nation, tying Tennessee in the number of farms. Only Texas (226,000), Missouri (109,000), and Iowa (95,000) have more farms.

As tobacco declines, it is expected that many more of the small farms that generate marginal sales will also go on the auction block. Of the 90,000 farms in Kentucky, 51,000 had annual sales under $10,000, while 33,000 had sales between $10,000-$99,000, and 6,000 had sales of $100,000 or more.

The trend towards larger farm operations also continued. The amount of land in Kentucky farms remained unchanged from 1999 at an estimated 13.6 million acres. The average farm size in Kentucky for 2000 was 151 acres, up from last year's 149 acres. Farmland in Kentucky accounted for 54 percent of the estimated 25.4 million total acres in the state.

Implications for Kentucky. Beyond the immediate economic implications of reduced incomes and lost jobs associated with the changes underway in our farm economy, the loss of Kentucky's very identity is intertwined with the beauty of its farmland. Other data show that the pace of developing rural land in Kentucky is almost unmatched nationally. This trend raises fundamental questions about our best hopes for the future of the Commonwealth.

While we want a more broadly prosperous state, many believe we can and must preserve our rural heritage and the beauty of our landscape even as we create and expand opportunity. With careful planning, preservation and development need not be mutually exclusive goals. Clearly, quality of life must be a central consideration in our pursuit of information-based businesses and industries. Thus, the beauty of our rural places are not only part of our heritage but key to our future.

Clean Fuel Technology Advances

For years, energy-company researchers have been trying to mix oil and water, in an effort to create a cleaner burning fuel that could help meet tougher air-pollution standards. Now, *Business Week* reports, Lubrizol Corp. may have the formula: a cocktail containing conventional diesel fuel, 10 percent to 20 percent purified water, and an emulsifier that keeps the liquids blended, like bottled salad dressing, for months. Although not typically found in fuel, water alters the combustion process, resulting in a cleaner burn.

Lubrizol recently finished field testing its new fuel, called PuriNox, in a fleet of mass-transit buses operating outside Cleveland. By switching to the new fuel, Lubrizol found it could cut emissions of soot by up to 55 percent and those of smog-forming nitrogen oxide by up to 32 percent. Because PuriNox is so much cleaner, the California Air Resources Board will subsidize its use to meet stricter 2005 ozone standards. While the blend costs no more than regular fuel, it cuts mileage by about 10 percent.

Implications for Kentucky. For the Commonwealth's urban areas, the promise of a cleaner burning fuel on the immediate horizon is good news for the economy and for those who suffer from respiratory and other illnesses that air pollution aggravates. While decreased fuel efficiency is undesirable, this product adds only a modest cost to current fuel prices which are burdening all Americans, but especially those who have disregarded fuel efficiency in their choice of vehicles.

Philly Leaders Push Pounds Off
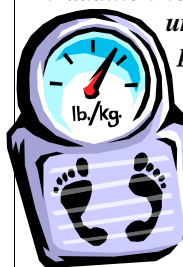
In addition to pressing matters like public education and urban blight, Mayor John Street of Philadelphia has another daunting mission: getting an entire city to lose weight. "We're too fat," the mayor, who lost more than 70 pounds as a young man, said in a *New York Times* article. Now, at 57, weighing in at a muscular 190 to 195 pounds on a 5-foot-9-inch frame, he works out most days in his basement gym.

"I just believe that people in order to lead productive lives need to take charge of their health," Mr. Street said. He has his work cut out for him.

Philadelphia, with its fondness for cheese steaks and hoagies, and–perhaps not coincidentally–its high rates of obesity, diabetes and heart disease, was named the fattest city in America by *Men's Fitness* magazine in January 1999. Mayor Street, who took office around the same time, declared a healthier city one of his top goals and appointed the city's first health and fitness czar. With a budget that consists solely of her salary, she has had to rely on corporate contributions, volunteers and public relations. Last month, she and the mayor joined with Pat Croce, the fitness-minded owner of the Philadelphia 76ers, to challenge Philadelphia to lose 76 tons in 76 days. Behind the weight-loss gimmick is a serious health effort.

Implications for Kentucky. As we consider the long-term human and fiscal toll of chronic diseases, many of which are directly linked to obesity, the importance of making healthy lifestyle choices a centerpiece on the public agenda cannot be overstated. Such public health initiatives are particularly important here in that Kentucky's obese population is among the highest in the nation.

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