Setting Priorities For Children's Health: Viewpoints Of Family Physicians And Pediatricians

Dona Schneider, PhD, MPH

Background: In this study family physicians and pediatricians were asked to rank public health goals for children for the year 2000 and to assign responsibility for implementing these goals.

Methods: All members of the New Jersey chapters of the American Academy of Pediatrics and the American Academy of Family Physicians were sent a one-time mail questionnaire. Statistical analysis of responses, a review of written comments, and follow-up telephone interviews completed the study.

Results: About 500 physicians returned the surveys (25 percent response rate). The highest ranked public health goals were reducing tobacco, alcohol, and other drug abuse; improving physical activity and fitness; immunizing against and controlling infectious diseases; and improving maternal and infant health. Physicians assigned prevention efforts to the federal government, the family, and the individual.

Conclusions: Family physicians and pediatricians routinely interact with two of the parties to whom they assign prevention responsibility — the individual and the family. The ability of physicians to influence these parties will increase if universal access to primary care and preventive services becomes law. This means they will also be in a unique position to influence high-priority public health goals for children. (J Am Board Fam Pract 1994; 7:387-94.)

The Clinton Health Care Security Proposal mandates a shift from the current health care system to one that phases in universal access to primary care. President Clinton noted that individuals need to be active participants in this plan, i.e., they need to take responsibility for their own health.[1]

Yet children cannot take responsibility for their own health. They are dependent upon others, especially their families, not only for preventive health care services but for their health status at birth and their overall growth and development. This problem was recognized by the medical and public health communities even before *Healthy People 2000*,[2] the document delineating the health goals for the nation, was released in 1991.

For example, Gilliss, et al.[3] called for the Department of Health and Human Services to focus on the family to solve the problems associated with alcohol and drug abuse (and the associated problems of child abuse and neglect), teenage pregnancy, and chronic illnesses. Allukian,[4] in his American Public Health Association (APHA) presidential address in 1990, called for a comprehensive national health education and health promotion program for children from kindergarten through high school in all our schools. One year later, McBeath[5] made a keynote address at the APHA annual meeting and noted that although the public health goals for the year 2000 (including goals for children) were finally formulated, there was no action implementation plan. There was simply no way to make sure the goals would be attained.

Louis Sullivan,[6] former US Secretary of Health and Human Services, put forth his own implementation plan calling for a "'culture of character' which reasserts the values of self-respect, self-discipline, and responsibility for family and community."p 296 Essentially the same implementation plan was recently espoused by President Clinton. But because children are reliant upon others for their care, such an implementation plan falls short. Instead, children require a plan that is both proactive and realistic.

Keck[7] underscored the need for such a plan in his 1991 APHA presidential address, when he noted that the US needs "an ethical framework within which (public health) decisions can be made that are both humane and politically feasible." The research reported here addresses that

need. The expertise of the primary health care professionals most likely to be familiar with the health needs of children — family physicians and pediatricians — was used to rank public health goals and to assign responsibility for seeing that the highest priority goals are met. The results fulfill the specifications called for by McBeath, that is, they indicate both a humane and politically feasible plan of action for achieving the year 2000 public health goals for American children. And these results are timely. If universal access to primary care and preventive services is actually implemented, it will be primary health care providers who are on the firing line, charged with improving and maintaining the health of American children.

Methods

All members of the New Jersey chapters of the American Academy of Family Physicians (AAFP) (N=680) and the American Academy of Pediatrics (AAP) (N=1365) were surveyed during the first week of April 1993 with a one-time mail-back questionnaire. Family physicians and pediatricians were selected because they are the primary health care professionals most familiar with the health problems of children and adolescents. New Jersey was selected because the state is highly diverse in both demographics and geography and because both professional organizations agreed to participate in the survey. Follow-up questionnaires were not undertaken because of limited funding. No pilot testing of this questionnaire was done, as this survey instrument had been successfully used in previous research with other health care professionals.[8,9]

Using the membership lists of the AAFP and the AAP New Jersey chapters to reach all the primary care providers in the state who see children in their practices had some drawbacks. Although more than 83 percent of family physicians and 99 percent of pediatricians in New Jersey belonged to their respective professional organizations, not all organization members saw patients (oral communications with membership staff, New Jersey chapters of the American Academy of Family Physicians, and the American Academy of Pediatrics, 14 February 1994). Some physicians functioned solely as academics, as businessmen, as insurance company staff, or as researchers. Still others were retired. Some members of the AAFP

restricted their practices and did not see children as patients. Both organizations included members who saw children only in the context of a subspecialty. In other words, the mailing lists included many members who did not see children in a primary care capacity, and there might have been a few practicing physicians who did not belong to these organizations who saw children as patients. The response rate is therefore likely to be underestimated because of the potentially large number of questionnaires sent to physicians who did not provide primary care services to children. Unfortunately, the actual number of qualified respondents cannot be precisely determined from membership lists.

The questionnaire elicited from the respondents how important they thought each of 21 specific health goals listed in *Healthy People 2000* are for American children, how amenable these goals are to intervention, and who should bear responsibility for achieving each one. Space was provided for physicians to comment on the questionnaire, to list their concerns about the health of American children that were not covered by the survey, and to provide their name and telephone number if they would agree to a telephone interview. Although the surveys were color coded to distinguish whether the respondent was a family physician or pediatrician, individual survey responses were anonymous.

Responses to questions on the importance of each goal and its amenability to change were scaled from 1 to 5, where 1=not important or not amenable, 3=important or amenable, and 5=most important or most amenable. Means and 95 percent confidence limits were calculated for each of the 21 goals for both importance and amenability to change, and mean ranks were assigned (rank 1=most important and rank 21=least important). Spearman rank correlations were calculated to determine how strongly family physicians and pediatricians agreed with each other on the issues.

Goals that fell in the top one-half of the rankings (10 or less in a rank range of 1 to 21) were considered to be high priority, that is, they were both important and likely to respond to public health interventions. Five goals met the criteria for high priority. For those five, responses were tabulated to determine who the respondents believed should bear responsibility for seeing that each goal is met.

At the conclusion of the data analysis, written comments of all respondents were reviewed, and a list was made of the names and telephone numbers of those who agreed to a telephone interview (n = 15). The survey responses and demographics of the volunteers for interviews were compared with the original data set to determine whether they were representative of all survey respondents. Fourteen of the 15 volunteers were successfully contacted and interviewed in September 1993.

Results

Forty respondents declined to respond because they did not see patients. An additional 28 had died, were not physicians, or had retired and left the state. Twelve weeks after the mailing of questionnaires, response rates were 26.9 percent (n = 183) for family physicians and 22.4 percent (n = 306) for pediatricians: the difference between groups was not statistically significant. The overall response rate for valid surveys was 25 percent (n = 489), which was higher than expected for a one-time mail-back questionnaire.[10] Because the response rate was most likely underestimated, and the number of respondents was large, the data were considered appropriate for analysis.

Twenty-six percent of the respondents practiced in urban areas, 67 percent in suburban areas, and 7 percent in rural areas, a distribution representative of the pediatric population of New Jersey based on relative urbanization. There was no way to determine whether the respondents' practice characteristics (solo, single- or multispecialty group, hospital-based), length of time in practice, or demographic variables were representative of all New Jersey primary care physicians who see children, because these data are not available.

Respondents considered all of the goals important for American children (mean responses ranged from 3.2 to 4.9). Family physicians ranked reducing alcohol and other drug abuse of primary importance, followed by reducing tobacco use and reducing violent and abusive behavior. Pediatricians also ranked reducing alcohol and other drug abuse and reducing tobacco use of primary importance, but were split on whether reducing violent and abusive behavior or preventing and controlling human immunodeficiency virus infection (HIV) and acquired immunodeficiency syndrome (AIDS) should be ranked 3rd in importance (Table 1).

Responding physicians considered improving food and drug safety, oral health, and occupational health and safety as the least important among the 21 goals, yet even these had means above 3.2 on the 5-point scale for importance. In other words, these physicians thought that all 21 of the goals held at least some importance for improving the health of American children. The Spearman rank correlation was 0.961 ($P < 0.001$), indicating almost perfect agreement between the two groups of physicians about which objectives were most important for American children and adolescents.

Importance does not necessarily translate into ability to be affected by health programs and other inputs. For example, while reducing alcohol and other drug abuse was ranked most important by both groups of physicians, it ranked only fifth for amenability to change among family physicians and tenth among pediatricians. In other words, although the goal was important, they thought it was more resistant to change than other goals, such as immunization (Table 1).

The goals that physicians believed to be most amenable to change were reducing tobacco use, immunizing against and controlling infectious diseases, increasing access to family planning services, and improving maternal and infant health. Those with the lowest ranks or those that were considered harder to change were the following: prevent, detect, and control cancer; prevent and control unintentional injuries; and improve mental health and prevent mental illness. The Spearman rank correlation between family physicians and pediatricians for this question on amenability to change was 0.928 ($P < 0.001$), again showing almost perfect agreement between groups about which goals were most likely to respond to public health efforts. Means and 95 percent confidence limits for the ranked data in Table 1 are available from the author upon request.

The relation between the importance of the goals and their amenability to change is shown in Table 2. Five goals had ranks of 10 or less for both importance and amenability to change for both responding groups. In other words, these were the goals that family physicians and pediatricians believed were high priority for American children — the goals that are both high in importance and likely to respond to public health inputs. The remaining 16 goals were considered at least

Table 1. Year 2000 Health Objectives for Children Ranked by Family Physicians and Pediatricians.*

Health Objective	Family Physicians (n=183)		Pediatricians (n=306)	
	Rank for Importance	Rank for Amenability to Change	Rank for Importance	Rank for Amenability to Change
Reduce tobacco use	2	1	2	4
Reduce alcohol and other abuse	1	5	1	10
Improve nutrition	10	9	12	9
Increase physical activity and fitness	8	6	8	7
Improve mental health and prevent mental illness	9	19	9	20
Reduce violent and abusive behavior	3	18	3.5	19
Increase access to family planning services	11	3	10	3
Promote health education and community-based health programs	15	7	14	5
Improve environmental public health	17	15.5	16	13
Improve occupational health and safety	20.5	11	19	11
Prevent and control unintentional injuries	18	21	13	17
Improve oral health	19	15.5	20	12
Improve food and drug safety	20.5	10	21	8
Increase clinical preventive health services	12	8	11	6
Prevent and control HIV infection and AIDS	4	13	3.5	15
Prevent and control sexually transmitted diseases	5	14	7	14
Immunize against and control infectious diseases	6	2	5	1
Improve maternal and infant health	7	4	6	2
Prevent, detect, and control hypertension, heart disease, and stroke	13	12	15	16
Prevent, detect, and control cancer	16	20	18	21
Prevent, detect, and control diabetes and other disabling conditions	14	17	17	18

*Rank scale (1=most important or most amenable, 21=least important or least amenable). Spearman rank correlations (family physicians/pediatricians): importance r_s=0.96 ($P<0.001$), amenability r_s=0.93 ($P<0.001$). HIV=human immunodeficiency virus, AIDS=acquired immunodeficiency syndrome.

somewhat important, but they were not among the top five and were ranked somewhat less likely to respond to public health inputs.

Having high-priority goals is not useful unless someone (a person, agency, or institution) takes responsibility for seeing that the goals are met. Respondents' assignment of responsibility for the high-priority goals appears in Table 3. The number of responses differs for each of the high-priority goals as not every respondent considered them in their personal top five.

The largest assignments of responsibility were to the federal government for improving maternal and infant health (57 percent) and immunizing against and controlling infectious disease (54 percent). Responding physicians thought that state governments, as well as the family, should bear at least some of the responsibility for achieving these objectives.

Responsibility for reducing tobacco and alcohol and other drug abuse was assessed somewhat differently. While the federal government had the highest assignment of responsibility for reducing tobacco use, the family and individual were also selected as holding important responsibility. The federal government was assigned a bit less responsibility for reducing alcohol and other drug abuse than for tobacco. But the family and the individual again carried a large proportion of the responsibility for substance abuse reduction.

The responsibility for increasing physical activity and fitness was clearly assigned to the schools (38 percent). Again, the family and the individual were assigned much of the responsibility for this goal, but governmental agencies were assigned very little.

Of interest is that overall, respondents assigned very little responsibility to state and local governments, the schools (except for physical activity and fitness), business and labor, and the media. Although local governments usually have their own health departments or relations with a county or regional health department, these agencies were not viewed by respondents as the appropri-

Table 2. Relation between Mean Responses for Importance and Amenability to Change (All Respondents).

Response	Health Goals
High importance, high amenability to change (high priority)	Reduce alcohol and other drug abuse Reduce tobacco use Immunize against and control infectious diseases Improve maternal and infant health Increase physical activity and fitness
High importance, some amenability to change	Reduce violent and abusive behavior Prevent and control HIV infection and AIDS Prevent and control sexually transmitted diseases
Some importance, high amenability to change	Increase clinical preventive health services Increase access to family planning services Promote health education and community-based health programs Improve food and drug safety
Some importance, some amenability to change	Improve nutrition Improve mental health and prevent mental illness Prevent, detect, and control cancer Prevent, detect, and control diabetes and other disabling conditions Prevent and control unintentional injuries Prevent, detect, and control hypertension, heart disease, and stroke Improve environmental health Improve oral health Improve occupational health and safety

HIV = human immunodeficiency virus, AIDS = acquired immunodeficiency syndrome.

ately responsible party for implementing public health goals for children. Business and labor were assigned less than 2 percent of responsibility, and the media, except for reducing tobacco use, was assigned very little.

To determine whether there were physician concerns not addressed by the public health goals listed in the questionnaire, space was left for comments. The largest number of comments concerned problems associated with poverty (n=27). For example, one physician noted that the working poor "fall through the cracks. If they don't have health insurance, they won't bring their kids in when they should, because they can't afford the office visit. Even if they have health insurance, there is often no coverage for well-child care and immunizations."

Several physicians complained that they often cannot refer to subspecialists because of lack of insurance coverage. Two physicians wrote that they are especially frustrated by limitations on eye and hearing services. "Children who cannot see and cannot hear, cannot learn," stated one.

Seven physicians listed problems associated with homelessness. One lengthy note decried that homeless children are resistant to treatment. The

respondent wrote, "I am powerless to help these kids. Follow-up is virtually nonexistent." These sentiments were echoed by two other physicians who noted similar problems with migrant worker children.

Comments on poverty and homelessness were almost matched in number by remarks about lack of parenting skills, single-parent families, teenage mothers, absent fathers, and the destruction of traditional family values (n=24). "We have to stop children from having children," was one such observation. These comments show the concern of responding physicians not only about health issues but about the link between these issues and the economic and social realities faced by their patients.

Many physicians wrote about lead exposure and insufficient lead screening programs (n=20). It was apparent from the comments that respondents did not make the connection between improving environmental public health and addressing the problem of lead in the environment. Had the survey made this link in an explanatory paragraph, improving environmental public health would probably have received considerably higher ranks for importance than it did.

Table 3. Percentage of Responses for Responsibility When Rankings for Importance and Amenability to Change Are ≤10.

	Reduce Tobacco Use (n=266)	Reduce Alcohol and Other Abuse (n=341)	Increase Physical Activity and Fitness (n=100)	Immunize Against and Control Infectious Diseases (n=165)	Improve Maternal and Infant Health (n=143)
Federal government	32.0	25.8	9.0	53.9	56.6
State government	3.0	2.6	2.0	10.9	16.8
Local government	0.8	4.1	0.0	6.7	4.2
Schools	10.2	9.7	38.0	5.6	0.7
Business and labor	1.5	0.9	1.0	0.6	0.7
Mass media	10.5	7.0	3.0	2.4	4.9
Family	21.1	29.0	27.0	15.2	7.7
Individual	19.2	17.0	17.0	2.4	5.6
Other	1.9	3.8	3.0	2.4	2.8
Total	100	100	100	100	100

Other concerns written in by 1 to 5 responding physicians and not discussed above are listed in Table 4. None of the physicians commented about asbestos in schools being a public health problem for children (a nightly news story featured on the New York television channels during the time of this survey and a multimillion dollar project in US schools[11]). Responding physicians might have assumed asbestos was covered under improving environmental public health, or they could have recognized that many asbestos removal techniques actually increase the risk of exposure to asbestos. It is more likely, however, that responding physicians regarded asbestos in schools as an overblown threat compared with other issues, such as immunizing and controlling infectious diseases and improving maternal and infant health.

The Spearman rank correlations between the aggregate survey responses of the 15 physicians who indicated a willingness to be interviewed (the subset) and those of the responding cohort were $r_s = 0.97$ for the question on importance and $r_s = 0.95$ for the question on amenability to change (both $P < 0.0001$). Thus the subset was representative of the entire responding cohort in terms of survey response. The subset indicated length of time in practice from 2 to more than 40 years (mode was more than 10 years). Their practice locations were in urban (n=8), suburban (n=6), and rural (n=2) settings in the northern, central, and southern parts of the state. Their practice settings ranged from solo (n=5) to group (n=5) to hospital-based (n=5) practices.

The telephone interviews focused on social and economic issues influencing child health rather than access to care, even though the Clinton Health Care Security Proposal was presented to the Congress at the time the interviews were taking place. One pediatrician in Paterson, NJ, lamented the number of inner-city children she sees in the emergency department because of accidents, poisonings, drownings, gunshot and knife wounds, pediatric AIDS, and child abuse. "You can't reform the health care system without reforming the welfare system," she stated. "All the incentives are incorrect. They are anti-family and antichildren. We need to spend money in different ways. The parents of the kids I see need jobs. They need to learn to care for their children."

An urban primary care provider in Camden, NJ, said:

A lot of the complaints I see . . . the underlying cause is stress, psychosocial. Children in Camden are like kids everywhere else in the world, full of promise and wonder when they are little. As I see them grow older, their abilities and self-esteem become very different from what I see in my own kids. For anyone to say the individual and the family have to take responsibility when you have inadequate parents and family units is unacceptable.

Not all critical comments came from inner-city physicians. One physician in an upper-middle-income resort area was impressed by the number of dysfunctional families in his practice. "Parents are too busy with their own lives to worry about their kids," he declared. "They prefer to go to work rather than stay home — it's a much easier route. Staying home is hard work and mothers have no social or economic support for staying home."

Table 4. Comments from Responding Physicians.

Number of Respondents	Responses
>10	Health problems associated with poverty and single-parent families
	Destruction of the family, lack of family values
	Lack of parenting skills
	Teenage mothers
	Absent fathers
	Lead exposure and lack of lead screening programs
6–10	Cannot refer to subspecialists because of insurance limitations
	Homelessness
	Violence in the home
	Violence in the community
	Parents cannot understand health problems because of cultural or language barriers
2–5	Lack of fluoride in some water supplies
	Lack of safe and affordable child care
	Lack of training of emergency personnel to handle children as patients
	Parental refusal of immunizations
	Parental drug or alcohol addiction
	Need for gun control
	Need for school health clinics
	Need for educational programs about seat belt use
	Need for educational programs about preventing Lyme disease
	Need for educational programs about the health conditions exacerbated by second-hand smoke (especially asthma)
1	Need for bicycle safety and helmet education
	Need to reduce fetal alcohol syndrome
	Need to clean up public places where children play (glass, feces, urine, and other contaminants)
	Need to address noise pollution
	Need to improve mental health referral services
	Need to increase breastfeeding
	Need to address problems associated with teen affluence

Prompted with a question about how to improve the health of American children, interviewed physicians suggested transferring money from health care into local social programs, increasing the length of the school year to keep children off the streets, and working to change cultural attitudes that allow teen pregnancy and single parenting to be acceptable.

Discussion

The above results represent the opinions of 489 New Jersey physicians who routinely see children in their practices. Although their responses are specific to one state, and some of the results might be biased because of the geographic distribution of poverty and specific illnesses (such as HIV and AIDS), these physicians clearly recognized the scope and seriousness of US child health problems.

Respondents set priorities for improving childhood immunizations, improving maternal and infant health, reducing the use of addictive substances, and improving physical activity and fitness. At least two of these goals, immunizations and maternal and infant health, are clearly associated with access, the public health issues affecting children that will most likely be effected by the Clinton Health Care Security Proposal.

On the other hand, responding physicians assigned the federal government only some of the responsibility for reducing alcohol, drug, and tobacco use. It is clear that these physicians believed that individuals and the family must play key roles in reducing these addictions.

There are limited resources to put into health care and public health issues. By using a systematic method of prioritizing and assigning responsibility for achieving public health goals, we can make the most of these limitations. Guaranteeing access to primary care is a start, but guaranteeing access does not guarantee utilization, especially when it comes to preventive services for children. To improve the health of children, we need to find ways to assure parental compliance, teach parenting skills, and change public attitudes about health risks and health risk behaviors. Clearly, this challenge should be taken up by family physicians and pediatricians. Their unique roles in primary care and prevention can be the key to achieving the high-priority public health goals for American children.

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