HEALTH CARE OBJECTIVES FOR CHILDREN AND ADOLESCENTS: DIFFERENCES IN URBAN, SUBURBAN, AND RURAL PRACTICES

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ABSTRACT: Healthy People 2000[1] set out more than 580 public health goals and objectives for all Americans, many by age, race and gender. Eleven of these objectives were aimed specifically at providers of primary pediatric and adolescent health care. This pilot study surveyed more than 2,000 providers of health care to children in one state (NJ) and asked whether their practice situation meets, or expects to meet, each of the 11 provider objectives by the year 2000. While the objectives will be met in the vast majority of responding physician's practice situations, some differences do exist based upon urban, suburban, or rural practice location.

In 1991, the Public Health Service released Healthy People 2000, a compendium of public health goals for the nation. Louis Sullivan, then Secretary of Health and Human Services, proposed an implementation plan for achieving these goals by calling for a "'culture of character' which reasserts the values of self-respect, self-discipline, and responsibility for family and community" (p.296).[2] If people would simply get enough exercise, control their diet, and restrain from abusing tobacco, alcohol and other drugs, went the theory, the American public would achieve the year 2000 public health goals.

There is a major flaw in this implementation plan. Children simply cannot take responsibility for their own health. They are dependent upon others, not only for health care preventive services, but for their health status at birth and their overall growth and development. Thus, goals and objectives for children need to be structured so as to assign responsibility for seeing that they are met. Yet only 11 of the more than 580 objectives in Healthy People 2000 are directed at providers of primary care to children and adolescents. This study was undertaken to determine whether the providers of primary care for children and adolescents in one state will meet these 11 objectives by the year 2000.

METHODS

The universe of members of the New Jersey chapters of the American Academy of Family Physicians (N=680) and the American Academy of Pediatrics (N=1,365) were surveyed during the first week of April, 1993, with a one-time mail-back questionnaire. Family physicians (FPs) and pediatricians (PEDs) 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 both professional organizations agreed to participate in the survey.

The questionnaire asked physicians to indicate whether their practice situation currently meets each of the 11 objectives for providers of health care to children and adolescents, whether it will meet

that objective by 1995, or by the year 2000 (Table 1). It also asked whether the respondent practices in an urban, suburban, or rural location (which was not defined in the survey instrument). Space was left for respondents to comment on the survey and to discuss whether they believe the year 2000 goals for children and adolescents will be met. Finally, respondents were asked to provide their telephone numbers if they would agree to a short interview. Responses were analyzed with descriptive statistics, difference of proportions, and analysis of variance techniques. Statistical significance was set at $p < .05$.

Table 1 PROVIDER HEALTH CARE OBJECTIVES FOR CHILDREN AND YOUNG ADULTS

1. PHYSICAL ACTIVITY: Primary care providers will routinely assess and counsel patients regarding frequency, duration, type, and intensity of physical activity practices.
2. NUTRITION: Primary care providers will provide nutrition assessment and counseling and/or referral to qualified nutritionists or dietitians.
3. TOBACCO: Primary care and oral health providers will routinely advise cessation and provide assistance and follow-up for all their tobacco-using patients.
4. ADDICTION: Primary care providers will screen for alcohol and other drug use problems and provide counseling and referral as needed.
5. ADOPTION: Pregnancy counselors will offer positive, accurate information about adoption to their unmarried patients with unintended pregnancies.
6. HIV/STD CLINICS: Family planning, maternal-child health, sexually-transmitted disease, tuberculosis, drug treatment, and primary care *clinics* will screen, diagnose, counsel, and provide (or refer for) partner notification services for HIV infection and bacterial sexually-transmitted diseases.
7. COPING: Primary care providers will routinely review *with patients* their patients' cognitive, emotional, and behavioral functioning and the resources available to deal with any problems that are identified.
8. CHILD REFERRAL: Providers of primary care for children will include assessment of cognitive, emotional, and parent-child functioning, with appropriate counseling, referral, and follow-up, in their clinical practices.
9. VICTIMS: Protocols for routinely identifying, treating, and properly referring suicide attempters, victims of sexual assault, and victims of spouse, elder, and child abuse will be extended to hospital emergency departments.
10. SAFETY: Primary care providers will routinely provide age-appropriate counseling on safety precautions to prevent unintentional injury.
11. STD PREVENTION: Primary care providers and mental health care providers will provide age-appropriate counseling on the prevention of HIV and other sexually-transmitted diseases.

RESULTS

Forty respondents declined to respond because they do not see patients (e.g., they work for insurance firms, drug companies, or in management or research). An additional 28 were deceased, were not physicians, or had retired and left the state. After 12 weeks, the overall response rate was 23 percent (n=449) for valid surveys, an expected response for one-time mail-back questionnaires.[3] The response

rates for the groups were not significantly different at 27 percent for family physicians (N=183) and 23 percent for pediatricians (N=306). Twenty-six percent of respondents practiced in urban areas (n=118), 67 percent in suburban areas (n=300), and 7 percent in rural areas (n=31), a distribution representative of the pediatric population of New Jersey based on relative urbanization.

A review of aggregate data (both provider groups in all practice locations) showed that the objectives are currently being met in 50-75 percent of respondents' practices, except for ADOPTION (43%). By 1995, all 11 objectives will be met in 65-90 percent of respondents' practices. ADOPTION will remain the objective least likely to be met (35% will not meet this goal) and STD PREVENTION will be the objective most likely to be met (only 8% will not meet this goal) in respondents' practices by the year 2000.

Table 2 MEAN RESPONSE OF FAMILY PRACTITIONERS AND PEDIATRICIANS TO "DOES YOUR PRACTICE MEET THESE OBJECTIVES?"

Objective	n	Urban	Suburban	Rural	All Respondents
PHYSICAL ACTIVITY	444	1.84[a]	1.42	1.34	1.52
NUTRITION	449	1.36	1.31	1.19	1.31
TOBACCO	434	1.67[a]	1.38	1.29	1.45
ADDICTION	437	1.67	1.46	1.32	1.50
ADOPTION	397	1.89	1.96	1.57	1.91
HIV/STD CLINICS	415	1.54	1.80[b]	1.40	1.69
COPING	444	1.55[c]	1.33	1.48	1.40
CHILD REFERRAL	441	1.38	1.29	1.23	1.31
VICTIMS	426	1.48	1.61	1.50	1.57
SAFETY	445	1.39	1.32	1.60	1.36
STD PREVENTION	441	1.39	1.37	1.29	1.37

1 = Yes, objective already met
2 = No, but objective will be met by 1995
3 = No, objective will not be met
a = Urban significantly higher than suburban and rural ($p < .05$)
b = Suburban significantly higher than urban and rural ($p < .05$)
c = Urban significantly higher than suburban ($p < .05$)

Differences in whether respondents' practices currently meet the objectives based on urban, suburban, and rural location are found in Table 2. Statistically significant differences were found for four of the 11 objectives. Specifically, urban practitioners are less likely than suburban or rural practitioners to routinely assess and counsel patients about PHYSICAL ACTIVITY or to advise for cessation of TOBACCO. They are also less likely than suburban practitioners to review with patients their cognitive, emotional, and behavioral functioning (COPING). On the other hand, suburban clinics and practices are less likely than urban and rural ones to provide services for HIV/STD problems.

To understand not only current differences based on practice location, but whether these differences are expected to persist as we approach the year 2000, additional tables were constructed for the objectives with significant findings (Tables 3a-3d). More than one-quarter of responding urban practitioners do not expect their practices will meet the PHYSICAL ACTIVITY objective by the year 2000. More than one-fifth of them do not expect to achieve the TOBACCO objective and more than one-sixth do not expect to meet the COPING objective. Although 26 percent of responding suburban practitioners do not expect their practice situations to meet the HIV/STD goal by the year 2000, this finding was not statistically significantly different from the expectations of their urban and rural counterparts.

Table 3a PERCENT OF RESPONSES FOR PHYSICAL ACTIVITY BY LOCATION

RESPONSE	Urban n = 116	Suburban n = 299	Rural n = 29
Yes, objective already met	43.1[ab]	69.6	75.9
No, but objective will be met by 1995	30.2[a]	18.7	13.8
No, objective will not be met	26.7[a]	11.7	10.3
Total	100	100	100

a Urban and Suburban significantly different ($p < .05$)
b Urban and Rural significantly different ($p < .05$)

Table 3b PERCENT OF RESPONSES FOR TOBACCO BY LOCATION

RESPONSE	Urban n = 110	Suburban n = 293	Rural n = 31
Yes, objective already met	53.6[ab]	73.4	77.4
No, but objective will be met by 1995	25.4[a]	15.4	16.1
No, objective will not be met	21.0[a]	11.2	6.5
Total	100	100	100

a Urban and Suburban significantly different ($p < .05$)
b Urban and Rural significantly different ($p < .05$)

Table 3c PERCENT OF RESPONSES FOR HIV/STD CLINICS BY LOCATION

RESPONSE	Urban n = 114	Suburban n = 271	Rural n = 30
Yes, objective already met	63.2[a]	46.1[c]	73.4
No, but objective will be met by 1995	20.2[b]	28.1	13.3
No, objective will not be met	16.6	25.8	13.3
Total	100	100	100

a Urban and Suburban significantly different ($p < .05$)
b Urban and Rural significantly different ($p < .05$)
c Suburban and Rural significantly different ($p < .05$)

Table 3d PERCENT OF RESPONSES FOR COPING BY LOCATION

RESPONSE	Urban n = 119	Suburban n = 294	Rural n = 31
Yes, objective already met	60.5[a]	75.2	71.0
No, but objective will be met by 1995	23.5	16.7	9.7
No, objective will not be met	16.0[a]	8.1	19.3
Total	100	100	100

a Urban and Suburban significantly different ($p < .05$)

DISCUSSION

In the aggregate, all but one of the provider objectives for achieving better health care for children and adolescents (ADOPTION) are already being met by the majority of responding pediatricians and family practitioners who see children and adolescents in New Jersey. It is interesting to note that the objective least likely to be met by the year 2000 is the one that might be perceived as politically rather than medically motivated. Several physicians noted in their written remarks that "children should not bear children." Others wrote that young girls who find themselves pregnant should not carry a pregnancy to term for both physical and psychosocial reasons. In other words, some responding physicians believe there are cases where a child is simply too young to bear a child.

The proportion of overall practices expected to meet the eleven objectives will improve as we near the year 2000, but 100 percent compliance will not be achieved for any of the eleven objectives. The objective most closely approaching universal implementation will be that of STD PREVENTION. There seems to be very little disagreement among responding physicians that age-appropriate STD PREVENTION education is a worthwhile goal and should be implemented in their practices.

Differences do exist in meeting the provider objectives based upon respondents' practice locations. Urban respondents' are least likely to meet the objectives of counseling patients about PHYSICAL

ACTIVITY and TOBACCO, and least likely to review cognitive, emotional, and behavioral functioning (COPING) with their patients. These differences will likely persist to the year 2000. One explanation for these differences may be that some practices are geared more to acute problems than to preventive care and developmental assessment visits. If urban practices are dealing mostly with acute care, they may not have the time for the objectives involving counseling. It may also be that the patient base in urban respondents' practices is younger than that in suburban and rural practices. In that case, PHYSICAL ACTIVITY, TOBACCO, and COPING might not apply. A third explanation involves the fact that many urban practice situations may be clinic-based, staffed by a rotating schedule of resident physicians. In these instances, patients may not have their follow-up visits with a single practitioner and the objectives may simply be lost in the cracks of non-continuous care. Unfortunately, these explanations are all conjecture and none can be explored with available data.

On the other hand, suburban clinics and practitioners are least likely to meet the HIV/STD CLINIC objective. Although suburban practitioners claim they are providing age-appropriate STD PREVENTION counseling in their practices, they are less likely than those in urban and rural areas to provide screening, diagnosis, counseling, and partner notification services for HIV/STDs. One possible explanation for this finding may be that suburban practices diagnose and treat, but do not necessarily counsel and notify partners at this point in time. Regardless, suburban practices will not be handling the objective statistically significantly differently from their peers in rural and urban practices by the year 2000.

This pilot study determined that the year 2000 objectives for providers of health care for children and adolescents will be fairly well-met in one state -- New Jersey. The objective least likely to be met by the year 2000 is the one with political overtones -- that of adoption counseling. That most likely to be met is STD PREVENTION. Four statistically significant differences exist in which practices will meet the objectives depending upon practice location, but one of these, HIV/STD CLINICS, will disappear by the year 2000. Urban respondents indicate they are and will remain less likely to counsel patients for PHYSICAL ACTIVITY, against TOBACCO, and about COPING than their suburban and rural counterparts.

A nationwide follow-up survey should now be done for two reasons. First, the survey will make providers familiar with the objectives and will force them to consider whether their practice should be part of this national public health effort. Second, it will provide information so that professional organizations can target their members and public health officials can target providers with information campaigns about achieving the objectives.

CONCLUSION

Having healthy children and adolescents is an obvious goal for both practitioners and public health officials. How to achieve specific objectives, however, is far more complex, requiring communication between the two. To date, that communication has been limited. The goals and objectives were provided in a massive volume, but no implementation plan nor information campaign was put into place that would address the needs of children and adolescents. Provider goals were not extracted and professional organizations were not recruited to help members meet the objectives. Without such an effort, practitioners have little impetus to make changes in the way they see and counsel patients. And without change, many of the year 2000 objectives are unlikely to be achieved.

REFERENCES

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