

smoker. The case for intervention regarding diet appears weaker than that for promoting changes in tobacco and alcohol use. Not to eat fruits, vegetables, and grain products may well be harmful, but no one believes such a diet is addictive or that the consumption of it directly harms others.

In other respects, the issue needs to be placed in historical context. Serious and sustained epidemiological research into the effects of smoking and alcohol goes back at least half a century. Comparable research on the effects of diet goes back scarcely half that time and is beset by much greater problems of mismeasurement.

Through the *Healthy People 2000* goals, our government has promoted a shift from an animal-based to a plant-based diet. So far, it has done little to encourage research on the effects of such a shift. Research to date has emphasized the benefits of single-nutrient supplementation and the risk of single-disease outcomes. Few trustworthy studies analyze the overall impact of dietary patterns on health and longevity. Because we should never neglect the possibilities of unanticipated consequences, we need studies of dietary change and its effects on chronic disease in humans.

Our job is to circulate the information we have accumulated and to base our best advice on that information. In view of what we know about dietary benefit and harm at this time, the dietary choices of the Year 2000 goals constitute prudent policy. Beyond that, we need to press research to light our way into the future. □

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Editorial: Jails and Prisons—America's New Mental Hospitals

Quietly but steadily, jails and prisons are replacing public mental hospitals as the primary purveyors of public psychiatric services for individuals with serious mental illnesses in the United States. The trend is evident everywhere. In the San Diego County jail, where 14% of the 4572 male and 25% of the 687 female inmates are on psychiatric medications, the assis-

tant sheriff says that "we've become the bottom-line mental health provider in the county."¹ In Seattle's King County jail, where "on any given day about 160 of the 2000 inmates are severely mentally ill . . . the jail has become King County's largest institution for the mentally ill."² In Travis County jail in Austin, Tex, 14% of inmates have serious psychiatric illnesses and "its

psychiatric population rivals that of Austin State Hospital."³ Miami's Dade County jails "usually house about 350 people with mental illnesses, more than any single institution or hospital in the county."⁴ And the Los Angeles County jail system,

Editor's Note. See related article by Steadman et al. (p 1630) in this issue.

with 3300 of its 21 000 inmates requiring “mental health services on a daily basis,” has become de facto “the largest mental institution in the country.”⁵

The numbers increase daily and astound one. According to a September 11, 1994, press release from the US Department of Justice, American jails held 454 620 inmates in 1993. State and federal prisons held another 909 185 inmates, and yet another 671 470 released inmates were on parole. That totals 2 035 275 individuals in jail, prison, or on parole. Estimates of the percentage of those who are seriously mentally ill—with schizophrenia, bipolar disorder, or severe recurrent depression—range from 6% to 15%, depending on the study and on the institution. If 8% of them are seriously mentally ill, that would be 162 822 individuals. This is *twice* the number of seriously mentally ill individuals who are now in state mental hospitals on any given day. It is also *greater than* the entire population of the cities of Chattanooga, Fort Lauderdale, Hartford, New Haven, Providence, Reno, or Salt Lake City.

These are, of course, just numbers, like the number of individuals killed in a flood in Bangladesh or an earthquake in Turkey. They fail to convey the human tragedies that hide behind such numbers. A 1992 survey of jails in the United States reported that 40% of jail officials said that seriously mentally ill inmates are abused by other inmates.⁶ In the Los Angeles County jails, abuse is facilitated because mentally ill inmates wear a different color jail uniforms and are commonly referred to as “ding-a-lings.” Verbal abuse and physical assaults are common experiences for seriously mentally ill inmates, and rapes are not rare. As one Texas jail official summarized it: “All kinds of things can happen when a mental case is in jail. Some inmates have patience with mental cases, others do not, especially if the mental case is loud and abusive.”⁶

Another problem with seriously mentally ill individuals in jails and prisons is that, because of their illnesses, they often cannot understand the rules or follow orders. In one such incident that was publicized, an inmate “was pulled out of line while waiting for a meal in the jail cafeteria. [He] was violating jail rules requiring inmates to remain silent, place their hands in their pockets, and keep their shirts tucked in.”⁶ He was beaten by the guards so severely that he suffered

permanent brain damage. As a mental health official in a California county jail phrased it, “The bad and the mad don’t mix.”⁶

Suicide is another tragic consequence of putting seriously mentally ill individuals in jails and prisons. New York State data collected between 1977 and 1982 revealed that half of all jail inmates who committed suicide had been previously hospitalized for a mental disorder.⁶ In the Sacramento County jail, an analysis of suicide attempts found that “more than half were experiencing hallucinations or delusions at the time of the attempt. . . . More than 75% had histories of previous mental health treatment.”⁶ For guards who have been trained for corrections work, not as psychiatric nurses, assessing the needs of mentally ill inmates can be a real problem. A guard in the Jefferson County jail in Kentucky explained how his colleagues differentiate a serious suicide attempt from a gesture: “If an inmate cuts his wrists, a guard checks the depth of the cut by inserting his thumbnail in the wound. Guards figure half a thumbnail or less is usually a fake.”⁶

How do so many seriously mentally ill individuals end up in jails and prisons? In the previously referenced 1992 jail survey, it was found that 29% of jails sometimes incarcerate mentally ill persons against whom *no criminal charges* were filed.⁶ Such individuals are boarded in jails while they await a psychiatric evaluation, the availability of a psychiatric bed, or transportation to a public psychiatric hospital, which, in rural states, may be many miles away. In Idaho alone in 1990, it was estimated that approximately 300 mentally ill persons were jailed for an average of 5 days each without charges. I have personally seen a woman with bipolar disorder who had been in a county jail in Indiana for 4 months, not having been charged with any crime, merely awaiting the availability of a bed in a state psychiatric hospital.

The majority of seriously mentally ill individuals who end up in jail have been charged with relatively minor offenses. In the 1992 survey of jail officials, the most common reasons for jailing seriously mentally ill individuals were said to be assault, theft for property or services, disorderly conduct, alcohol or drug-related charges, and trespassing.⁶ Common forms of theft for seriously mentally ill individuals are shoplifting and failing to pay for restaurant meals (“dine and dash”). A mentally ill man in Florida was arrested for

refusing to leave a motel “that God had given him.”

Another reason why the number of mentally ill persons in jails is increasing is that such individuals are less likely to be released on bail. In Seattle’s King County jail, “mentally ill inmates average 34 days in custody—3 times that of inmates more able to post bail and leave.”² A recent study carried out at the Fairfax County, Virginia, jail of individuals charged with misdemeanors found that individuals who were not mentally ill spent an average of 4.1 pretrial days in jail, whereas individuals who were seriously mentally ill with psychosis spent an average of 27.3 pretrial days in jail.⁷

This is the context in which to place the important work of Henry J. Steadman and his colleagues in this issue of the *Journal*.⁸ Steadman et al. have identified the elements that constitute successful jail diversion programs, including integrated services, regular meetings of key agency representatives, boundary spanners, strong leadership, early identification of cases, and distinctive case management services. Such programs can dramatically reduce the number of seriously mentally ill individuals in jails as well as their average length of incarceration.

It should be added that, although Steadman et al. focus their study exclusively on post-booking (after arrest) jail diversion programs, it is equally important to develop effective pre-booking jail diversion programs. Law enforcement officials are spending increasing amounts of their time responding to psychiatric crises and must decide whether to take the person to a mental health center or to jail. For example, a recent study of California law enforcement officials found that 28.4% of those officials had responded to a robbery call within the preceding three months, but 28.8% had responded to a “mental health crisis.”⁹

The most sobering side of jail diversion, however, is the assumption that there are public psychiatric services to which the mentally ill individuals can be diverted. This, as many law enforcement officials have learned, frequently is not the case. Deinstitutionalization of seriously mentally ill individuals has been the largest failed social experiment in twentieth-century America. It has failed not because the vast majority of released individuals cannot live in the community, but because we did not ensure that they receive the medications and aftercare that they need to do so successfully. The fact that we need jail diversion programs

for these individuals is yet one more reminder of how badly we have failed them. □

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Editorial: The Need for Innovation in Immunization

Immunization for the prevention of common childhood diseases demonstrates some of the greatest strengths and some of the most profound weaknesses of child health care in the United States. Although many of the current vaccines have been extraordinarily successful in controlling certain epidemic diseases—production of the Hib vaccine is only the most recent of these successes^{1,2}—rates of vaccine protection of 11 to 61% in 2-year-olds point to a serious gap in the protection of many American children,^{3,4,5} as emphasized by recent outbreaks of measles⁶ and pertussis.⁷ This discrepancy between the high potential efficacy of these vaccines and our poor record in realizing this potential for all children has been one of our more pressing public health problems. Two articles this month, by Simpson and colleagues⁸ and by Fairbrother and DuMont,⁹ address this issue in innovative ways, each offering important lessons to guide future vaccine policy development.

Simpson et al. look at childhood immunizations from the perspective of the Children's Vaccine Initiative, an international program to improve levels of childhood vaccination by the production and distribution of new, effective, and affordable oral vaccines requiring relatively few doses early in life. The task they set themselves is to develop a model of vaccine use that can guide policymakers in allocating resources for vaccine research and development based upon the most cost-effective characteristics of an improved vaccine. In a lengthy process of analysis and model building, incorporating published and unpublished data and expert opinions, the authors developed estimates for the efficacy, rates of adverse reactions, and monetary costs of current

and improved vaccines for diphtheria, pertussis, and tetanus; for *Hemophilus influenzae* type b; and for measles, mumps, and rubella.

Costs certainly play an important role in public vaccine programs. Yet there is no evidence that our system is principally cost-driven, or that immunization rates and disease incidence are particularly sensitive to program costs. On the contrary, early experience with both the surcharge added by the Vaccine Injury Compensation Program, and more recently with the Federal Childhood Immunization Initiative¹⁰ suggests that immunization rates are not very price-sensitive.¹¹ However, one wonders to what extent new vaccines, such as the varicella vaccine, may compete with those already recommended, and the extent to which new vaccine recommendations may need to take such competition into account before routine vaccine recommendations can be further expanded.

Fairbrother and DuMont analyze the distribution side of vaccine programs.⁹ In particular, they report on a campaign organized in New York City along the lines of the mass campaigns promoted by United Nations Children's Fund (UNICEF) in many of the less industrialized countries.¹² This was an important experiment, not only as a new approach to improving immunization rates among city children, but also because of the larger debate in the public health community as to whether public health programs effective in less industrialized countries can be extended to the United States. As happens in many real-life policy experiments, this experiment did not actually address the original question of the applicability of the UNICEF approach to inner-city

immunization in the United States. Nonetheless, it yielded some valuable results. First, the New York trial failed to develop either the political commitment or the widespread social mobilization that are the keystones of the UNICEF approach. Instead, the program had a very abbreviated planning period and took a back seat to the upcoming mayoral election in the city. Numbers of children actually seen in the program were small, costs were high, and many children who responded to the program were already adequately immunized. Thus, with poor public response, high expenses, duplication of services, and little in the way of new on-going services put into place after the campaign was over, this project duplicated the shortcomings of many short-term efforts to raise vaccination coverage.

Low immunization rates in preschoolers need to be addressed by systematic, long-term immunization campaigns targeted at the unimmunized or underimmunized child. Many studies suggest that among the leading causes of low immunization rates in preschoolers are a lack of physician commitment,¹³ and a two-tier health system that diverts children from receiving their immunizations from the most convenient source.¹⁴ New, innovative approaches to the problem, such as those recently discussed in these pages,¹⁵ are urgently needed. □

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Editor's Note. See related articles by Simpson et al. (p 1666) and Fairbrother and DuMont (p 1662) in this issue.