Executive Summary

In the Omnibus Consolidated Appropriations Act of 1997, Congress instructed the U.S. Department of Justice to set aside funding for a study of *The Health Status of Soon-To-Be-Released Inmates*. As a result of these earmarked funds, the National Institute of Justice (NIJ), the research and evaluation arm of the U.S. Department of Justice, entered into a cooperative agreement with the National Commission on Correctional Health Care (NCCHC) to conduct the study. This report is the culmination of the project's work. The project has shown unmistakably that a unique opportunity exists to reduce the health risks and financial costs to the community that are associated with releasing large numbers of inmates with undiagnosed and untreated diseases.

Volume 1 of *The Health Status of Soon-To-Be-Released Inmates* has seven chapters. This summary outlines the information presented in considerably more detail in volume 1. It is important to read the entire volume to gain a full understanding of the problems and opportunities associated with the health status of inmates. Volume 2 of the report includes the papers commissioned for the project. They form the basis for the project's findings and policy recommendations.

Introduction

The inmate population in the United States has been growing rapidly since the early 1970s: As of 1999, an estimated 2 million persons were incarcerated in the Nation's jails and prisons, compared with 325,400 in 1970—an increase of about 500 percent.[1] Approximately 11.5 million inmates were released into the community in 1998, most from city and county jails.[2] As explained below, these inmates have high rates of communicable disease, chronic disease, and mental illness. Coupled with the expanding inmate population, these high rates of disease create a critical need for preventing, screening, and treating illness before inmates are released into the community.[3] Why?

- Some of the serious diseases affecting inmates, including sexually transmitted diseases (STDs), human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), hepatitis B and C, and tuberculosis (TB), can be transmitted to other inmates.

- The Nation's one-half million correctional employees[4]—and thousands of daily visitors to prisons and jails—may be at risk of becoming infected from inmates with communicable diseases if appropriate precautions are not implemented.

- Inmates with communicable diseases who are released without having been effectively treated may transmit these conditions in the community, threatening public health.

- Inmates who are released with untreated conditions may become a serious financial burden on community health care systems.

Because they have a large and concentrated population of individuals at high risk for disease, prisons and jails offer a unique opportunity for improving disease control in the community by providing comprehensive health care and disease prevention programs to inmates.[5] Prisons and jails make it possible to reach a population that is largely underserved and difficult to identify and treat in the general community. Because inmates are literally a "captive" audience, it is vastly more efficient and effective to screen and treat them while they are incarcerated than it is to conduct extensive outreach in local communities designed to encourage at-risk individuals to go to a clinic for testing and treatment.

History of the Project

The Health Status of Soon-To-Be-Released Inmates project involved several components. A steering committee coordinated the work and

provided expert guidance to the project. Three expert panels, one each on communicable disease, chronic disease, and mental illness, provided expert guidance to the steering committee. Panel members included many of the Nation's most respected researchers, practitioners, and scholars in the fields of public and correctional health care (see appendixes A and B). Centers for Disease Control and Prevention (CDC) staff were especially helpful in guiding the scholarly work of the expert panels.

After identifying the specific communicable diseases, chronic diseases, and mental illnesses the project would examine, each expert panel estimated the extent of illness among inmates for the more common but remediable health problems; determined the cost-effectiveness of preventing or treating these health problems; and developed public policy recommendations for capitalizing on these opportunities.

The steering committee conducted a mail survey of State prison systems to collect information on policies and procedures for discharge planning and for providing medications to inmates with chronic disease and mental illness when they were released. The survey also asked about the availability of databases on the prevalence of chronic disease and mental illness.[6]

The steering committee commissioned eight papers and two sets of presentation materials from nationally known experts in the correctional and public health care fields. The authors estimated the prevalence of the selected diseases in prisons and jails and calculated whether it would save money or be cost effective to prevent, screen for, or treat these diseases. The papers present the principal empirical support for the project's policy recommendations.

Prevalence of Communicable Disease, Chronic Disease, and Mental Illness Among the Inmate Population

Different procedures were used to estimate the prevalence of disease and mental illness among the inmate population, but the estimates rely on well-established national databases.

Communicable disease[7]—prevalence

The approximate number of inmates with selected communicable diseases in 1997 was calculated by applying national prevalence estimates for each condition to the total number of inmates in U.S. prisons and jails on June 30, 1997. The approximate number of releasees with these conditions was obtained by applying the same prevalence percentages to the total unduplicated number of persons released from prisons and jails during 1996 (the most recent data available at the time the estimates were done). Because the estimates for releasees are based on total numbers of persons released during a full year, an especially high figure for jails, they are much higher than the estimates for inmates, which are based on the correctional population on a given day. Statistics on total number of individuals incarcerated during a full year are not available.

The estimated prevalence of selected communicable diseases in prisons and jails is as follows:

- An estimated 34,800 to 46,000 inmates in 1997 were infected with HIV. An estimated 98,500 to 145,500 HIV-positive inmates were released from prisons and jails in 1996.

- Included among the HIV-positive inmates in 1997 were an estimated 8,900 inmates with AIDS. An estimated 38,500 inmates with AIDS were released from prisons and jails in 1996.

- There were an estimated 107,000 to 137,000 cases of STDs among inmates in 1997 and at least 465,000 STD cases among releasees: 36,000 inmates in 1997 and 155,000 releasees in 1996 had current or chronic hepatitis B infection; between 303,000 and 332,000 prison and jail inmates were infected with hepatitis C in 1997; and between 1.3 and 1.4 million inmates released from prison or jail in 1996 were infected with hepatitis C.[8]

- About 12,000 people who had active TB disease during 1996 served time in a correctional facility during that year.[9] More than 130,000 inmates tested positive for latent

TB infection in 1997. An estimated 566,000 inmates with latent TB infection were released in 1996.

Thus, a highly disproportionate number of inmates suffer from infectious disease compared with the rest of the Nation's population. During 1996, about 3 percent of the U.S. population spent time in a prison or jail; however, between 12 and 35 percent of the total number of people with selected communicable diseases in the Nation passed through a correctional facility during that same year.

- Seventeen percent of the estimated 229,000 persons living with AIDS in the United States in 1996 passed through a correctional facility that year.[10] The prevalence of AIDS among inmates is five times higher than among the general U.S. population.[11]

- The estimated 98,000 to more than 145,000 prison and jail releasees with HIV infection in 1997 represented 13 to 19 percent of all HIV-positive individuals in the United States.

- The estimated 155,000 releasees with current or chronic hepatitis B infection in 1996 indicate that between 12 and 15 percent of all individuals in the United States with chronic or current hepatitis B infection in 1996 spent time in a correctional facility that year.

- The estimated 1.3–1.4 million releasees infected with hepatitis C in 1996 suggest that an extremely high 29–32 percent of the estimated 4.5 million people infected with hepatitis C in the United States[12] served time in a correctional facility that year. The 17.0–18.6 percent prevalence range of hepatitis C among inmates—probably an underestimate—is 9–10 times higher than the estimated hepatitis C prevalence in the Nation's population as a whole.[13]

- Of all people in the Nation with active TB disease in 1996, an estimated 35 percent (12,200) served time in a correctional facility that year. The prevalence of active TB among inmates is between 4 and 17 times greater than among the total U.S. population.

Chronic disease[14]—prevalence

- The prevalence of asthma among Federal, State, and local inmates in 1995 is estimated to be between 8 and 9 percent, for a total of more than 140,000 cases nationwide. Prevalence rates for asthma are higher among inmates than among the total U.S. population.

- The prevalence of diabetes in inmates is estimated to be about 5 percent, for a total of nearly 74,000.

- More than 18 percent of inmates are estimated to have hypertension, for a total of more than 283,000 inmates.

Mental illness[15]—prevalence

The estimated prevalence of mental illness among jail inmates is as follows:

- An estimated 1 percent have schizophrenia or another psychotic disorder.

- About 8–15 percent have major depression.

- Between 1 and 3 percent have bipolar disorder.

- Between nearly 2 and less than 5 percent of jail inmates are estimated to have dysthymia (less severe but longer term depression).

- Between 14 and 20 percent have some type of anxiety disorder.[16]

- Another 4 to less than 9 percent suffer from post-traumatic stress disorder.

The estimated prevalence of mental disorders among State prison inmates is as follows:

- An estimated 2–4 percent have schizophrenia or another psychotic disorder.

- Between 13 and less than 19 percent have major depression.

- Between 2 and less than 5 percent have bipolar disorder.

- Between 8 and less than 14 percent have dysthymia.
- Between 22 and 30 percent have an anxiety disorder.
- Between 6 and 12 percent have post-traumatic stress disorder.

Improving Correctional Health Care: A Unique Opportunity to Protect Public Health

The large concentration of prison and jail inmates with serious disease or mental illness affords a unique opportunity to provide needed treatment and prevention and to help protect public health in general. To what extent are prisons and jails seizing this opportunity? Many correctional agencies are doing too little to address communicable disease, chronic disease, and mental illness.

Communicable disease[17]—current state of corrections prevention, screening, and treatment programs

- Few prison or jail systems have implemented comprehensive HIV-prevention programs[18] in all their facilities.
- On average, less than one-quarter of jail inmates undergo routine laboratory testing for syphilis during incarceration. In some jails, only 2–7 percent of inmates are tested.
- More than 90 percent of State and Federal prisons, and about half of jails, routinely screen at intake for latent TB infection and active TB disease. Particularly in jails, however, many inmates are released before skin tests can be read. Most prisons and jails report that they isolate inmates with suspected or confirmed TB disease in negative pressure rooms. Some facilities, however, do not test the rooms to ensure that the air exchange is working properly, or they continue to use the rooms even when the air exchange is known to be out of order.

Chronic disease—current state of corrections prevention, screening, and treatment programs

Of the 41 State correctional systems that responded to a survey conducted for *The Health Status of Soon-To-Be-Released Inmates* project,[19] only 24 reported they had protocols for diabetes, 25 for hypertension, and 26 for asthma. A content analysis revealed that many of these "guidelines" were incomplete or out of date.

Mental illness—current state of corrections prevention, screening, and treatment programs

Few jails provide a comprehensive range of mental health services.[20] Only 60 percent provide mental health evaluations, 42 percent provide psychiatric medications, 43 percent provide crisis intervention services, and 72 percent provide access to inpatient hospitalization.[21] A majority of State adult prisons provide screening and assessment for mental illness, medication and medication monitoring, counseling or verbal therapy, and access to inpatient care. Only 36 percent of prisons have specialized housing for individuals with stable mental health conditions.[22]

Continuity of care for inmates released with communicable disease, chronic disease, and mental illness is especially inadequate. Only 21 percent of jails provide case management or prerelease planning for mentally ill inmates.[23]

Corrections' Mixed Record of Compliance With National Clinical Guidelines

Many prisons and jails fail to conform to nationally accepted clinical guidelines. For example, consider the following:

- A significant proportion of prisons and jails do not adhere to CDC standards with regard to screening for and treating latent TB infection and active disease. About 10 percent of State and Federal prisons, and about 50 percent of jails, do not have mandatory TB screening for inmates at intake and annually thereafter.[24]

- Most prisons and jails fail to conform to nationally accepted health care guidelines for mental health screening and treatment. Seventeen percent of jails and prisons do not provide recommended intake screening for mental illness, and 40 percent of jails and 17 percent of prisons do not provide recommended mental health evaluations.[25]

By rectifying these gaps in prevention, screening, and treatment services in prisons and jails, communities can take advantage of a tremendous opportunity to improve public health by reducing the problems associated with untreated inmates returning to the community. Furthermore, addressing these health care deficiencies would be cost effective.

Cost-Effectiveness of Prevention, Screening, and Treatment of Disease Among Inmates

A cost-saving intervention saves more money in averted medical costs than is needed to implement it. An intervention is cost effective if the benefits it will achieve are worth the price—even if the intervention costs more than the money saved.

Cost-effectiveness findings

The members of the project steering committee and expert panels found that several interventions would be a cost saving or cost effective.

- Universal screening for syphilis at intake in both prisons and jails would be a cost saving (and, therefore, cost effective) if at least 1 percent of the inmates had the disease. Routine syphilis screening and treatment would save almost $1.6 million for every 10,000 inmates screened.[26]

- Routine screening of men and women in prisons and jails for gonorrhea and chlamydia would be cost effective. Universal screening of women for gonorrhea and chlamydia at intake to prisons and jails would also be a cost saving if at least 8 percent of female inmates had gonorrhea and 9 percent had chlamydia.[27]

- For correctional systems with HIV prevalence rates as low as 1.5 percent, an HIV-prevention program of voluntary counseling and testing for HIV-infected inmates in prison would be a cost saving. Offering counseling to 10,000 prison inmates would prevent three future cases of HIV if 60 percent of those inmates agreed to be counseled and tested. On the three cases alone, $140,000 could be saved. Counseling and testing 10,000 inmates would cost the prison system about $117,000, or approximately $39,000 per case of HIV prevented.[28]

- For correctional systems with HIV prevalence rates of at least 2.3 percent—the overall infection rate in prisons and jails nationwide—universal screening for tuberculosis in prisons would be a cost saving because of the heightened susceptibility to TB of individuals with HIV. The 989 cases of active TB that would be prevented for every 100,000 inmates tested, with treatment of those inmates found to have latent TB infection,[29] would save $7,174,509, or $7,254 per case prevented.[30]

- Universal screening in prisons and jails for hypertension and diabetes would be cost effective.[31]

Scientifically effective interventions

Obviously, only effective medical interventions can be a cost saving or cost effective. Fortunately, correctional agencies can introduce many scientifically tested interventions to target inmate diseases. The following interventions have proven to be effective for communicable diseases:[32]

- **Sexually transmitted diseases:** Peer-led educational sessions addressing safer sexual practices, rapid screening for and treatment of syphilis, and screening and treatment for gonorrhea and chlamydia.

- **HIV/AIDS:** Encouraging all inmates with risk factors to agree to be tested, providing educational programming to help inmates avoid acquiring and transmitting HIV/AIDS,

and offering appropriate standard-of-care treatment to all inmates with HIV infection.

- **Tuberculosis:** Training correctional staff to be alert for inmates with TB symptoms, screening all new admissions, testing current inmates and all staff annually, having access to properly operating negative pressure isolation rooms, providing prompt and effective treatment under direct observation, and providing for followup in the community when release precedes completion of treatment.

- **Hepatitis B and C:** Routinely vaccinating all inmates, or susceptible inmates, against hepatitis B and offering educational sessions that present strategies to avoid acquiring and transmitting infection.

Empirically based interventions are known to reduce illness and death associated with several chronic diseases, including asthma, diabetes, and hypertension. Appendix D in volume 1, "Sample Draft Clinical Guidelines," provides examples of these proven interventions.[33]

Barriers to Effective Prevention, Screening, and Treatment—and Overcoming Them

Despite the compelling reasons for improving the prevention, screening, and treatment of disease among inmates, significant barriers may make it difficult for prisons and jails to improve these services. Most barriers fall into one of four categories:

- **Lack of leadership**, such as failure to recognize the need for improved health care services, reluctance to consider that improving public health is a correctional responsibility, and unwillingness of public health agencies to advocate for improving correctional health care or to collaborate to promote improvement.

- **Logistical barriers**, such as short periods of incarceration, security-conscious administration procedures for distributing medications, and difficulty coordinating discharge planning.

- **Limited resources** that require difficult budgeting decisions to meet the high cost of many health care services and some medications, and that make it difficult to provide adequate space for medical services.

- **Correctional policies**, such as failure to specify minimum levels of required care in contracts with private health care vendors, delays caused by the need to escort inmates to medical treatment, poor communication between public health agencies and prisons and jails, and lack of adequate clinical guidelines.

Most of these barriers to improved health care for inmates can be overcome. First, position statements that a number of well-respected, national professional groups have developed describing appropriate health care for inmates can be used as leverage to encourage correctional administrators to find ways of resolving barriers to providing adequate care. A list of NCCHC position statements appears in appendix C. Second, collaboration among correctional agencies, public health departments, and community-based organizations can help overcome the lack of correctional health care funds and staff. Public health departments may be willing to contribute funds, staff, and expertise if they understand that this use of their resources can advance the cause of public health in their communities. Public health departments in some jurisdictions already contribute significantly to testing and screening of inmates, providing prevention and treatment programs in prisons and jails, and following up on inmates after release to ensure a continuum of care. Many community-based organizations are interested in and willing to provide services to inmates.

- The Hampden County Correctional Center, which serves 500,000 residents of Massachusetts' second largest metropolitan area,

has developed a public health model of correctional health care that focuses on disease screening, prevention, treatment, discharge planning, and continuity of care for releasees. The program costs about $6 per inmate day, or 9 percent of the facility's budget. Based on ZIP Code of residence, inmates with HIV/AIDS and other serious medical and mental health conditions are assigned to one of four health teams that work jointly in the correctional center and in four community health centers. Case managers who work in both agencies provide discharge planning services for all inmates with HIV/AIDS and serious mental health problems. A discharge planning nurse at the facility provides similar services for inmates with chronic diseases. Releasees are linked with community-based agencies that address issues of family reintegration, housing, employment training and readiness, and benefit programs.[34]

- The Fairfax County (Virginia) Jail has overcome the pervasive barriers to discharge planning for mentally ill inmates. A private nonprofit organization links detainees with mental health-related services upon release and maintains the detainee's family ties while the person is incarcerated. This affords the inmate a source of additional support after release. The organization's eight staff provide or arrange for the following services:
  - Transportation and housing assistance to mentally ill inmates upon release.
  - Teaching, mentoring, and tutoring in the facilities.
  - Teaching life skills to releasees.
  - Group therapy for inmates and their families.
  - Support groups for families and close friends of inmates.
  - Emergency funds for families to buy food and clothing while providers are in jail.[35]

Policy Recommendations

The expert panels assembled for *The Health Status of Soon-To-Be-Released Inmates* project developed policy recommendations for improving the health care of prison and jail inmates. The project steering committee refined the panels' recommendations. The recommendations are based on expert consensus that there is sufficient—if not always definitive—scientific evidence to justify their implementation. Much of this scientific evidence is presented in this report.

Many prisons and jails have implemented interventions that are not reflected in these recommendations. That this report does not include an intervention that correctional systems are currently implementing does not mean that these systems should discontinue the intervention—or that other systems should not consider introducing it. In fact, professional organizations, including the National Commission on Correctional Health Care, will likely develop new recommendations as clinical studies demonstrate the effectiveness of additional interventions.

The policy recommendations to Congress, listed in full below, are followed by actions that the steering committee proposes that specified Federal, State, and local agencies take in order to support implementation of the recommendations.

Surveillance[36]

The principal use of disease surveillance in correctional facilities is to monitor disease incidence, prevalence, and outcomes in the inmate population. Surveillance includes collecting health data and evaluating the data collection system to assist correctional health officials in characterizing the health status of the inmate population. The information obtained from the surveillance system is used to plan, implement, and evaluate health needs of the inmate population and their anticipated health needs upon release.

I. Congress should promote surveillance of selected communicable diseases, chronic diseases,

and mental illnesses among inmates in all correctional jurisdictions. Appropriate Federal agencies in partnership with national health-related organizations should:

A. Develop surveillance guidelines to promote uniform national reporting of selected conditions to enhance epidemiologic research of these conditions and assist with accurate health care planning. Ensure that data collected in prisons and jails as part of the surveillance program are collected in the same manner as they are collected in the community.[37] Surveillance guidelines should incorporate processes for protecting confidentiality of data.

B. Create a national correctional health care database.

    1. Develop standardized definitions and measures for reporting to assess the prevalence of selected communicable diseases, chronic diseases, and mental illnesses.[38]

    2. Mandate national reporting of these prevalence data.

    3. Design an information system and make it available for use by local, State, and Federal correctional authorities to measure and report the data with the ability to categorize the data by age, race, and gender.

C. Produce statistical reports of local, State, and national rates of selected communicable diseases, chronic diseases, and mental illnesses in prisons and jails to aid planning correctional and public health programs and allocate local resources.[39]

D. Evaluate the utility of surveillance activities and implement improvements as appropriate.

Clinical guidelines

Clinical guidelines provide definitions and abbreviated decision trees for the diagnosis and management of various diseases and conditions. They guide the clinician in areas where scientific evidence of the value of selected interventions exists to improve survival and clinical outcomes and to reduce morbidity and the cost of care. Clinical guidelines are widely used outside corrections.

II. Congress should promote the use of nationally accepted evidence-based clinical guidelines for prisons and jails. This will help assure appropriate use of resources to prevent, diagnose, and treat selected communicable diseases, common chronic diseases, and mental illnesses that are prevalent among inmates. Appropriate Federal agencies in partnership with national health-related organizations should:

A. Ensure that the clinical guidelines are consistent with nationally accepted disease definitions and evidence-based guidelines used for the nonincarcerated population.[40]

B. Disseminate the clinical guidelines to correctional health care professionals, public health agencies, and public policymakers.

C. Update the clinical guidelines as often as needed.

D. Develop standardized performance measures for State and local correctional authorities to determine adherence to nationally accepted clinical guidelines.

E. Train correctional health and public health professionals in the use of these clinical guidelines and performance measures.

F. Develop tools for correctional systems to assess over-prescribing and under-prescribing of psychotropic medications.

Immunizations

Immunizations prevent the development of a variety of communicable diseases in individuals. In the case of diseases such as hepatitis B, poliomyelitis, measles, mumps, or rubella, immunizations prevent the transmission of disease to susceptible individuals in the general population. Such immunizations are nationally accepted and

promoted by the Centers for Disease Control and Prevention. Some immunizations are directly cost saving and others are highly cost effective.

III. Congress should establish and fund a national vaccine program for inmates to protect them and the public from selected vaccine-preventable communicable diseases.

A. The vaccination program should be similar to the National Vaccine Program for Children.

B. The program should conform to the recommendations of the CDC's Advisory Committee on Immunization Practices (ACIP).[41]

National correctional health care literature database

To function competently, correctional health care clinicians require access to the medical literature, especially as it relates to correctional health care issues. Existing resources do not provide this level of specificity.

IV. Congress, through appropriate Federal agencies and health-related national organizations, should develop and maintain a national literature database for correctional health care professionals, including a compendium of policies, standards, guidelines, and peer-reviewed literature.

Ethical decisionmaking

Correctional health care professionals function in a uniquely restrictive environment with limited opportunity for peer review of medical policies and administrative actions. A national forum is needed to discuss issues, such as confidentiality, informed consent, clinical management of hepatitis C[42] and HIV, and the availability of biomedical research.

V. Congress should establish a national advisory panel on ethical decisionmaking among correctional and health authorities to assist those authorities in addressing ethical dilemmas encountered in correctional health care.

Eliminate barriers to inmate health care

In correctional facilities, health care professionals face unique barriers to the delivery of health services. These include constraints on policy, budgets, priorities, and staffing. Correctional institutions are positioned to provide individual care to inmates and protect the public health through aggressive health promotion and disease prevention efforts. At all levels of government, public policymakers should recognize that eliminating barriers to health care for inmates provides long-term public health benefits.

VI. Congress, through appropriate Federal and State agencies and health-related national organizations, should identify and eliminate barriers to the successful implementation of public health policy.

A. Reduce obstructions to effective public health programs within correctional facilities and in the community.

B. Promote continuity of inmate health care by maintaining Medicaid benefits for eligible inmates throughout their incarceration.

C. Promote continuity of ex-offender health care by mandating immediate Medicaid eligibility upon release.

D. Provide incentives to jails and prisons to expand their alcohol and other drug treatment programs. These services should be gender specific and made available to inmates from admission through release, with special attention paid to inmates with both mental illness and substance abuse problems.

Correctional health care research

Too little is known about the epidemiology of disease in correctional populations and too little has been done to evaluate programs designed to improve inmate health.

VII. Congress, through appropriate Federal agencies and health-related national organizations, should support research in

correctional health care to identify and address problems unique to correctional settings.

A. Fund projects to evaluate models that emphasize creative, cost-effective options for continuity of care following release.

B. Fund research programs to define effective health education and risk reduction strategies for inmates. These strategies need to deal with relevant differences between inmate and noninmate populations. The research programs should work through public, private, and community-based health care agencies.

C. Fund research programs to identify correctional system barriers that prevent correctional health care staff from implementing prudent medical care and public health recommendations.

Improve delivery of health care

For a variety of reasons, the scope and content of correctional health care services vary. The quality of care is not as high as it might be, resulting in unnecessary morbidity, premature mortality, and increased costs.

VIII. Congress, through appropriate Federal agencies and medically based accrediting organizations, should promote improvements to the delivery of inmate health care.[43]

A. Require Federal, State, and local correctional systems to adhere to nationally recognized standards for the delivery of health care services in corrections.[44] These standards should include access to care, quality of care, quality of service, and appropriate credentialing of health care professionals.

B. Provide sufficient resources for correctional systems to adhere to national standards.

C. Weigh the correctional system's adherence to national standards for health care delivery whenever determining funding levels for the system.

Disease prevention

Primary prevention is designed to keep disease from occurring. Examples include lifestyle choices and vaccination against selected communicable diseases. Primary prevention is widely believed to be the best and most cost-effective use of health care dollars. In some cases, it is also a cost saving—that is, prevention program saves more money than it costs to implement. Secondary prevention (screening) is the early detection of disease that already exists but may not be apparent to the patient.[45]

IX. Congress, through appropriate Federal agencies and national organizations, should encourage primary and secondary disease prevention efforts.

A. Promote primary disease prevention measures by requiring Federal, State, and local correctional agencies to:

1. Provide all inmates with a smoke-free correctional environment. Offer tobacco cessation programs for all staff and inmates as a method of achieving tobacco-free facilities.

2. Offer heart-healthy choices on institutional menus and in commissaries.

3. Make daily aerobic exercise available to all inmates.

4. Consistent with the recommendations of the ACIP, make hepatitis B vaccines available to all inmates, even when their length of incarceration is short or indeterminate.

5. Screen all females for pregnancy. Test women found to be pregnant for hepatitis, HIV infection, syphilis, gonorrhea, and chlamydia. Provide HIV treatment to HIV-infected mothers to prevent transmission of the disease to the newborn.

6. Although not a correctional system responsibility, administrators should seek

to collaborate with community health care providers to ensure the timely immunization of all infants born to mothers who test positive for hepatitis B.

7. Offer scientifically based risk reduction education on HIV infection and STD to all inmates.

B. Promote secondary disease prevention measures by using nationally accepted evidence-based clinical guidelines as appropriate.

1. Provide hypertension, obesity, asthma, and seizure disorder screening for all prison inmates.

2. Provide diabetes and hyperlipidemia screening for jail and prison inmates at high risk.

3. Provide suicide prevention programs, including timely screening for inmates at high risk for suicide.

4. Prevent the spread of tuberculosis.

a. Consistent with nationally accepted guidelines,[46] routinely screen inmates for TB disease and infection, and provide preventive treatment for inmates with latent TB infection.

b. Promote the use of short-course preventive therapy (delivered over 2 months) in correctional settings.

c. Strengthen links of TB control efforts between correctional facilities and public health departments.

d. On employment and annually thereafter, screen all correctional staff who have inmate contact for latent TB infection.

5. Prevent the spread of HIV infection.

a. Encourage voluntary HIV counseling and testing of inmates.

b. Provide appropriate treatment for HIV-positive, pregnant inmates to prevent HIV transmission to their babies.[47]

6. Screen inmates for syphilis, gonorrhea, and chlamydia routinely upon reception at prisons and jails, and treat inmates who test positive for these infections.[48]

Prerelease planning

Many inmates are released into the community while still being treated for communicable and chronic diseases or mental illness. Ensuring continuity of care upon release can reduce health risks to the public, such as in cases of tuberculosis and sexually transmitted diseases. Continuity of care upon release for inmates with co-occurring mental illness and substance abuse disorders can reduce the risk of illicit drug use in the community. It is cost effective to the community to provide continuity of care on release for inmates with chronic disease.

X. Congress, through appropriate Federal agencies and national organizations, should encourage Federal, State, and local correctional facilities to provide prerelease planning for health care for all soon-to-be-released inmates.

A. Address the medical, housing, and postrelease needs of inmates in prerelease planning and make use of appropriate resources and new technologies.

B. Coordinate discharge planning efforts between appropriate public agencies—such as correctional, parole, mental health, substance abuse, and public health agencies—to prevent disease transmission and to reduce society's costs from untreated and undertreated illness.

Recommended actions by government agencies

The steering committee and expert panels recognized that many Federal agencies have a role in affecting the health status of soon-to-be-released inmates. Within the U.S. Department of Health and Human Services (DHHS), for example, agencies such as the Centers for Disease Control and Prevention (CDC), the Health Resources and Services Administration (HRSA), the Substance

Abuse and Mental Health Services Administration (SAMHSA), the National Institute of Drug Abuse (NIDA), the Office of Women's Health (OWH), the Public Health Service (PHS), the Indian Health Service (IHS), and the Office of Minority Health (OMH) are actively engaged in health services programs that impact on inmates. In addition, within the U.S. Department of Justice (DOJ), agencies such as the National Institute of Justice (NIJ), the Immigration and Naturalization Service (INS), the Bureau of Prisons (BOP) including the National Institute of Corrections (NIC), the Corrections Program Office (CPO), and the Office of Justice Programs (OJP) conduct programs and activities that ultimately influence inmate health. Finally, the Office of the Surgeon General (OSG) and the White House Executive Office of National Drug Control Policy (ONDCP) also impact the health care of inmates.

The steering committee and expert panels recommend that Congress provide the necessary authorization, funding, and other assistance to the appropriate agencies to implement the following recommendations.

I. The Secretary of DHHS should direct appropriate agencies to collaborate with other agencies in analyzing the potential economic benefits to the community of early diagnosis and treatment of communicable diseases, chronic diseases, and mental illnesses.

II. The Secretary should direct CDC to collaborate with NIJ, NIC, CPO, and other DOJ divisions in developing tools to assist State and local agencies in deciding when and whom to screen for communicable diseases in correctional settings.

III. The Secretary should direct all appropriate agencies within the department to work toward reducing interagency regulatory and bureaucratic barriers to testing and counseling for HIV, TB, and STDs among inmates.

IV. The Secretary and the Attorney General should involve correctional health professionals in public health planning and the evaluation of correctional health care programs.

V. The Secretary and the Attorney General should direct appropriate agencies to support field tests of innovative medical information systems to improve the continuity of care for inmates transferred between correctional facilities or released into the community. These efforts should concentrate on removing barriers that impede the transfer of appropriate medical information.

VI. The Secretary and the Attorney General should direct appropriate agencies to develop educational programs to inform policymakers and the public about the public health and social benefits of investing in health care for inmates.

VII. A Federal interagency task force, currently established and cochaired by CDC and NIJ, should report annually to the Secretary and the Attorney General on the status of correctional health care in the Nation and on progress made toward implementing the recommendations included in this report.

Notes

1. Beck, A.J., *Prisoners in 1999*, Bulletin, Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, August 2000, NCJ 183476.

2. Beck, Allen, U.S. Department of Justice, Bureau of Justice Statistics, personal interview, May 15, 2000.

3. Corrections departments also have a legal obligation to treat inmates. The most important single ruling has been the U.S. Supreme Court's 1976 finding in *Estelle* v. *Gamble*, 429 U.S. 97, that "deliberate indifference" (not mere medical malpractice) to "serious medical needs" of inmates violates the eighth amendment's prohibition against cruel and unusual punishment.

4. An estimated 339,070 people were employed in State and Federal correctional facilities in 1995 and 165,500 were employed in jails. See Stephan, J.J., *Census of State and Federal Correctional Facilities, 1995*, Bureau of Justice Statistics Executive Summary, Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, August 1997, NCJ 166582; and Perkins, C.A., J.J. Stephan, and A.J. Beck, *Jails and*

Jail Inmates, 1993–94, Bulletin, Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, April 1995, NCJ 151651.

5. See, for example, Glaser, J.B., and R.B. Greifinger, "Correctional Health Care: A Public Health Opportunity," *Annals of Internal Medicine* 118(2) (1993): 139–145.

6. Hornung, C.A., B.J. Anno, R.B. Greifinger, and S. Gadre, "Health Care for Soon-To-Be-Released Inmates: A Survey of State Prison Systems," paper prepared for the National Commission on Correctional Health Care, Chicago, Illinois, n.d. (Copy in this volume.)

7. Hammett, T.M., P. Harmon, and W. Rhodes, "The Burden of Infectious Disease Among Inmates and Releasees From Correctional Facilities," paper prepared for the National Commission on Correctional Health Care, Chicago, Illinois, May 2000. (Copy in this volume.)

8. The U.S. Department of Justice, Bureau of Justice Statistics, is preparing a report for release in 2002 on the prevalence of hepatitis among correctional populations, based on data from the 2001 census of State and Federal adult correctional facilities.

9. This figure was derived by applying the prevalence of TB disease among inmates in prisons (0.04 percent) and jails (0.17 percent) to the estimated number of releasees from prisons and jails. The estimate of releases was calculated by applying a point prevalence rate for inmates (i.e., the percentage of inmates who were under treatment for TB disease on a given day in 1997) to the total number of releasees during all of 1996. The estimate suggests that about 12,000 people who were released from a correctional facility during 1996 had TB disease at some time during that year, but it does not mean that they all had TB disease at the time of their release from prison or jail. Most of them probably did not have TB disease at the time of their release because, if properly treated, TB disease typically lasts only a short time. The denominator (34,000) is an estimate of the total number of persons with TB in the United States during 1996. The Centers for Disease Control and Prevention's TB Registry Reports, which provided the numbers of cases in a given year, were discontinued in 1994. The only report for subsequent years is CDC's TB surveillance report, which provides incident (new) cases each year. Therefore, an average ratio of incident cases to prevalent cases was calculated for the last 3 years in which Registry Reports were available (1992–94). This ratio (0.627) was then applied to the number of incident cases for 1996 (21,337) to obtain the estimate of 34,000 prevalent cases in 1996.

10. Centers for Disease Control and Prevention, *HIV/AIDS Surveillance Report, 1997,* Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1997.

11. A more recent study concluded that the 1996 AIDS rate for incarcerated persons was at least six times the national rate. See Dean-Gaitor, H.D., and P.L. Fleming, "Epidemiology of AIDS in Incarcerated Persons in the United States, 1994–1996," *AIDS* 13(17) (1999): 2429–2435.

12. Based on the prevalence estimate in McQuillan, G.M., M.J. Alter, L.A. Moyer, S.B. Lambert, and H.S. Margolis, "A Population-Based Serologic Survey of Hepatitis C Virus Infection in the U.S.," in *Viral Hepatitis and Liver Disease*, M. Rizzetto, R.H. Purcell, G.L. Gerin, and G. Verme, eds., Turin, Italy: Edizioni Minerva Medica, 1997: 267–270.

13. Hammett, Harmon, and Rhodes, "The Burden of Infectious Disease Among Inmates and Releasees" (see note 7). The 17.0–18.6 percent estimate is probably very low, given that studies conducted in individual prison systems have found prevalence rates of 30–40 percent.

14. Hornung C.A., R.B. Greifinger, and S. Gadre, "A Projection Model of the Prevalence of Selected Chronic Disease in the Inmate Population," paper prepared for the National Commission on Correctional Health Care, Chicago, Illinois, n.d. (Copy in this volume.)

15. Veysey, B.M., and G. Bichler-Robertson, "Prevalence Estimates of Psychiatric Disorders in Correctional Settings," paper prepared for the National Commission on Correctional Health Care, Chicago, Illinois, May 1999. (Copy in this volume.)

16. Dysthymia and anxiety range from completely disabling (e.g., agoraphobia) to not even mildly incapacitating (e.g., generalized anxiety disorder). Depending on the severity of their condition, many individuals with dysthymia and anxiety do not require medical treatment.

17. Hammett, T.M., P. Harmon, and L.M. Marushak, *1996–1997 Update: HIV/AIDS, STDs, and TB in Correctional Facilities*, Issues and Practices, Washington, DC: U.S. Department of Justice, National Institute of Justice, July 1999, NCJ 176344.

18. A comprehensive HIV-prevention program provides HIV counseling and testing, instructor-led education, peer-based programs, and multisession HIV-prevention counseling in each correctional facility.

19. Hornung, C.A., B.J. Anno, R.B. Greifinger, and S. Gadre, "Health Care for Soon-To-Be-Released Inmates: A survey of State Prison Systems" (see note 6).

20. Steadman, H.J., and B.M. Veysey, *Providing Services for Jail Inmates With Mental Disorders*, Research in Brief, Washington, DC: U.S. Department of Justice, National Institute of Justice, January 1997, NCJ 162207.

21. Ibid.

22. Manderscheid, R.W., and M.A. Sonnenschein, eds., *Mental Health, United States, 1992*, Rockville, Maryland: U.S. Department of Health and Human Services, 1992.

23. Steadman, H.J., and B.M. Veysey, *Providing Services for Jail Inmates With Mental Disorders* (see note 20).

24. Hammett, T.M., P. Harmon, and L.M. Maruschak, *1996–1997 Update: HIV/AIDS, STDs, and TB in Correctional Facilities* (see note 17).

25. Steadman, H.J., and B.M. Veysey, *Providing Services for Jail Inmates With Mental Disorders* (see note 20).

26. Kraut, J.R., A.C. Haddix, V. Carande-Kulis, and R.B. Greifinger, "Cost-Effectiveness of Routine Screening for Sexually Transmitted Disease Among Inmates in United States Prisons and Jails," paper prepared for the National Commission on Correctional Health Care, Chicago, Illinois, February 2000. (Copy in this volume.)

27. Ibid.

28. Varghese, B., and T.A. Peterman, "Cost-Effectiveness of HIV Counseling and Testing in U.S. Prisons," paper prepared for the National Commission on Correctional Health Care, n.d. (Copy in this volume.)

29. American Thoracic Society and the Centers for Disease Control and Prevention, "Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection," *American Journal of Respiratory and Critical Care Medicine* 161 (2000): 221S–247S; American Thoracic Society and the Centers for Disease Control and Prevention, "Diagnostic Standards and Classification of Tuberculosis in Adults and Children," *American Journal of Respiratory and Critical Care Medicine* 161 (2000): 1376–1395.

30. Taylor, Z., and C. Nguyen, "Cost-Effectiveness of Preventing Tuberculosis in Prison Populations," presentation prepared for the National Commission on Correctional Health Care, Chicago, Illinois, n.d. (Copy in this volume.)

31. Tomlinson, D.M., and C.B. Schechter, "Cost-Effectiveness Analysis of Annual Screening and Intensive Treatment for Hypertension and Diabetes Mellitus Among Prisoners in the United States," paper prepared for the National Commission on Correctional Health Care, Chicago, Illinois, n.d. (Copy in this volume.)

32. Shuter, J., "Communicable Diseases in Inmates: Public Health Opportunities," paper prepared for the National Commission on Correctional Health Care, Chicago, Illinois, n.d. (Copy in this volume.)

33. Draft clinical guidelines submitted to the National Commission on Correctional Health Care, Chicago, Illinois, currently under consideration for adoption. (Copy in appendix D of volume 1 of this report.)

34. Hammett, T.M., P. Harmon, and L.M. Maruschak, *1996–1997 Update: HIV/AIDS, STDs, and TB in Correctional Facilities* (see note 17).

35. Morris, S.M., H.J. Steadman, and B.M. Veysey, "Mental Health Services in United States Jails: A Survey of Innovative Practices," *Criminal Justice and Behavior* 24 (1) (1997): 3–19.

36. Surveillance is the ongoing systematic collection, analysis, and interpretation of health data.

37. See, for example, National Center for Health Statistics, *National Health and Nutrition Examination Survey III [NHANES–III]*, Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1997.

38. The definitions of mental disorders and presentation of their prevalence in American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed., Washington, DC: American Psychiatric Press, 1994, are a good illustration of the standardized definitions and measures that are needed in the field of correctional health care.

39. "Summary of Notifiable Diseases, United States, 1998," *Morbidity and Mortality Weekly Report* 47(53) (December 31, 1999).

40. See, for example, "Guidelines for the Use of Anti-retroviral Agents in HIV-Infected Adults and Adolescents," Rockville, MD: U.S. Department of Health and Human Services, available at http://www.hivatis.org/guidelines/adult/Apr23_01/pdf/AAAPR23S.PDF (updated April 23, 2001); American Diabetes Association, "Standards for Medical Care for Patients With Diabetes Mellitus," *Clinical Practice Recommendations 2000, Diabetes Care* (supp. 1) (2000): 1–23; American Diabetes Association, "Management of Diabetes in Correctional Institutions," *Clinical Practice Recommendations 2000, Diabetes Care* 21 (supp. 1) (2000): 1–3; National Institutes of Health, National Asthma Education and Prevention Program, *Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma*, Bethesda, MD: National Heart, Blood, and Lung Institute, February 1997; National Institutes of Health, "Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure," Bethesda, MD: National Heart, Lung, and Blood Institute, November 1997; "Clinical Guidelines: Report of the NIH Panel to Define Principles of Therapy of HIV Infection and Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents," Bethesda, MD: National Institutes of Health (updated May 5, 1999); and Centers for Disease Control and Prevention, "Clinical Guidelines: 1999 USPHS/IDSA Guidelines for the Prevention of Opportunistic Infections in Persons Infected With Human Immunodeficiency Virus," *Morbidity and Mortality Weekly Report* 48 (RR–10) (August 20, 1999): 1–59, 61–66.

41. The recommendations of the CDC's Advisory Committee on Immunization Practices can be found at CDC's Web site: http://www.cdc.gov/nip/publications/ACIP-list.htm.

42. See the Centers for Disease Control and Prevention, "Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-Related Chronic Disease," *Morbidity and Mortality Weekly Report* 47 (RR–19) (October 16, 1998): 1–39.

43. For a comparison of accreditation services for correctional institutions, see Anno, B.J., *Correctional Health Care: Guidelines for the Management of an Adequate Delivery System*, Washington, DC: U.S. Department of Justice, National Institute of Corrections (in press).

44. See National Commission on Correctional Health Care, *Standards for Health Services in Jails*, Chicago, IL: Author (in press).

45. A detailed discussion of the differences between primary and secondary prevention may be found in Last, J.M., *Public Health and Human Ecology*, 2d ed., Stamford, Connecticut: Appleton & Lange, 1998.

46. An excellent source for a tuberculosis clinical guideline is the Centers for Disease Control and Prevention at their Web site: www.cdc.gov.

47. See U.S. Department of Health and Human Services, "Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents" (see note 40).

48. The Centers for Disease Control and Prevention have prepared "HIV Prevention Through Early Detection and Treatment of Other Sexually Transmitted Diseases—United States. Recommendations of the Advisory Committee for HIV and STD Prevention," *Morbidity and Mortality Weekly Report* 47 (RR–12) (July 31, 1998).