

# Aging in Correctional Custody: Setting a Policy Agenda for Older Prisoner Health Care

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An exponential rise in the number of older prisoners is creating new and costly challenges for the criminal justice system, state economies, and communities to which older former prisoners return. We convened a meeting of 29 national experts in correctional health care, academic medicine, nursing, and civil rights to identify knowledge gaps and to propose a policy agenda to improve the care of older prisoners. The group identified 9 priority areas to be addressed: definition of the older prisoner, correctional staff training, definition of functional impairment in prison, recognition and assessment of dementia, recognition of the special needs of older women prisoners, geriatric housing units, issues for older adults upon release, medical early release, and prison-based palliative medicine programs. (*Am J Public Health*. 2012;102:1475–1481. doi:10.2105/AJPH.2012.300704)

Among Western nations, mass incarceration is a uniquely American experience.<sup>1</sup> At the US prison population's zenith in 2008, 1 in every 100 American adults was incarcerated, with an incarceration rate of 756 per 100 000 persons.<sup>2,3</sup> This rate surpasses that of Russia, which has the next-highest rate at 629 per 100 000 persons.<sup>3</sup> Perhaps more surprising than the sheer number of Americans who are incarcerated are the changing demographics of the prison population; the most rapidly growing prisoner age groups are middle aged (45–54 years) and older (≥ 55 years).<sup>4</sup> Between 2000 and 2009, the overall US prison population increased 16.3%, and the number of older prisoners increased 79.0%.<sup>5,6</sup>

Through the Eighth Amendment to the US Constitution (which protects against cruel and unusual punishment), prisoners have a right to timely access to an appropriate level of care for serious medical needs.<sup>7</sup> Yet many health care and service providers in the criminal justice system are underprepared to provide cost-effective quality care for older adults. Older prisoners disproportionately account for escalating correctional health care costs and create new and costly challenges for the criminal justice system. Prison-based health care systems increasingly must provide care to older persons with multiple, costly chronic medical conditions, such as diabetes, heart failure,

cognitive impairment, and end-stage liver disease.<sup>8–10</sup> Older prisoners also have higher rates of disability than do younger prisoners, and their overall costs are approximately 3 times as high.<sup>9,11</sup> In addition, older prisoners may generate high hidden costs. For example, prisons built to house younger persons may need to be renovated or rebuilt to accommodate an increasing number of older prisoners with disabilities.

Beyond legal and moral arguments for attention to the health care needs of older prisoners, we should consider other benefits to society. More than 95% of prisoners are eventually released to the community.<sup>12</sup> Many have chronic medical conditions and rely on expensive emergency services or are hospitalized after release.<sup>13</sup> Earlier identification of and attention to age-related disabilities and chronic disease could foster independent function in the community through the use of community health care resources. Furthermore, prison programs that improve health and cognitive skills or that target substance abuse have been associated with decreased recidivism (and rearrest).<sup>14</sup> Jails and prisons are also important sites for delivery of needed medical care to vulnerable populations with infectious diseases such as HIV, tuberculosis, and hepatitis C. In light of the increasing number and associated costs of older prisoners, our constitutional obligation to provide medical care to prisoners,

and the potential benefits to society, it is critical that a policy agenda be set to improve older prisoner health care. This policy agenda can be advanced through the efforts of policymakers, correctional administrators, health professions organizations, and correctional health care organizations.

We convened a roundtable meeting in 2011 at John Jay College of Criminal Justice in New York City to identify special considerations for the care of older prisoners and to propose a set of priority areas that need to be addressed in a new policy agenda. We also, when appropriate, identified important gaps in knowledge that should be addressed to better inform a policy agenda. This meeting was the third in a series of roundtable discussions that brought US private- and public-sector correctional health care leaders together with leaders in academic medicine, nursing, and civil rights to discuss topical issues in prison health care, where there are no existing standards. Discussion focused on the development of action items and standards through group consensus. The Jacob and Valeria Langeloth Foundation funded the public–private roundtables, with additional funding from private correctional health care vendors and in-kind contributions from John Jay College of Criminal Justice. The first<sup>15</sup> and second<sup>16</sup> roundtables addressed patient safety and challenges in contracting for correctional health care services, respectively.

## METHODS

We selected participants for the invitational roundtable for their experience with and knowledge about prison health care, geriatrics, or palliative medicine. A total of 29 national experts (19 men and 10 women) participated, including 9 chief medical officers employed by public or private correctional health care providers, 5 independent medical or

psychology–psychiatry experts, 5 academic physicians, 2 prisoner advocates, and 2 foundation officers. The group had 14 physicians, 2 psychologists, 1 nurse, and 3 lawyers.

The goal of the roundtable was to produce a list of action items that can be pursued to advance a policy agenda to optimize older prisoner health care. Participants, sharing their unique perspective on aging and correctional health care, deliberated until a consensus developed on 9 priority areas and related key considerations. Participants then discussed the state of knowledge in each of the 9 priority

areas and formulated a list of action items for each one.

**RESULTS**

Through consensus, roundtable participants identified 9 priority areas for a policy agenda related to older prisoners, discussed the current knowledge base in each one, and identified important gaps in knowledge that should be addressed to move policy forward. A list of specific action items for each priority area is shown in Table 1.

**Define the Older Prisoner**

Although the prison population is rapidly and steadily aging, a consensus as to at what age a prisoner becomes older or geriatric has not been reached.<sup>17</sup> The National Institute of Corrections and several research studies define older inmates as being aged 50 years or older.<sup>18</sup> Other research studies and the Bureau of Justice Statistics have used 55 years, although starting with the 2007 prison census data the bureau began to report the number of prisoners in age groups 55 to 59 years, 60 to 64 years, and 65 years or older.<sup>19</sup>

**TABLE 1—Consensus Recommendations From Roundtable on Health Care for Elderly Prisoners**

Priority Area	Action Items
Define the older prisoner	Uniform age definition of geriatric or older prisoners should be 55 years or older. Recommendations for older prisoners should be extended to prisoners younger than 55 years who have cognitive or functional impairments in activities of daily living.
Train staff and health care providers	Develop, enhance, and institute geriatrics training programs for correctional, parole, probation officers, and health care providers.
Define functional impairment among prisoners	Create a list of functional requirements that may be necessary in prison. Indicate for each housing unit should indicate which of the prison's functional tasks are necessary for independence in that particular unit. Use list of functional requirements to screen for impairment upon intake for all ages and annually for prisoners aged 55 years or older and for younger prisoners who have impairments. Screen for sensory impairment (vision, hearing) upon intake for all ages and annually if present and for all prisoners aged 55 years or older.
Screen for dementia	Research should focus on establishing optimal screening tools for cognitive impairment in prisoners. Use optimal cognitive impairment screening tools should occur: Upon admission if prisoner is aged 55 years or older or has a history of traumatic brain injury, Yearly if condition present for progression of symptoms, Yearly for all for all prisoners aged 55 years or older, For all persons aged 45 years or older if referred for a disciplinary hearing for the first time. Use screening results to guide decisions about housing, programming, medical treatment, and discharge planning Conduct research to evaluate the adequacy and cost effectiveness of these recommendations.
Identify needs of older women prisoners	Research should focus on understanding the health issues that may disproportionately affect older women prisoners.
Create uniform policies for geriatric housing units	Prison geriatric housing units should be available to older prisoners but should not be mandatory. Geriatric housing units must have similar access to programming and health care as in the general prison population. Policies should focus on planning for a continuum of care for older prisoners (independent living, assisted living, 24-h nursing care). Evidence-based criteria for long-term care classification should be developed and validated.
Identify release and reentry challenges for older adults	Transitional services linking former inmates to postrelease health care should be made available to older persons (and medically complex persons) upon release. Persons with cognitive impairment should have close supervision upon release. Reentry programs might focus on health literacy and self-efficacy.
Improve medical release policies	Create national medical eligibility criteria for early release. Address procedural barriers that could prevent some prisoners from accessing the application process.
Enhance prison palliative care programs	Enhance prison palliative care services. Even in the absence of a palliative care program, all health care providers should be trained in pain management and provider–patient communication.

Operationally, the definition of an older prisoner varies by state, with starting ages ranging from 50 to 70 years. In some states, no official age is designated.<sup>4</sup>

The definition of older age among prisoners is further blurred by a common differentiation that is made between an inmate's chronological and physiological age. Although empirical evidence for accelerated aging of prisoners is lacking, many estimate that prisoners' physiological age averages 10 to 15 years older than their chronological age.<sup>11,17</sup> This difference is attributed to factors arising both prior to and during incarceration.<sup>20</sup> In addition to stress during incarceration, prisoners' health can be affected by previous life experiences such as inadequate access to medical care and substance abuse. Consequently, although experts generally agree that the phenomenon of a rapidly aging prisoner population needs to be addressed, the lack of standardized and comprehensive data, specifically about health care conditions and the costs associated with older prisoners, poses a problem in the implementation of evidence-based solutions to increase cost-effective, quality care.<sup>17,18</sup>

Therefore, roundtable participants agreed that a consistent, national definition of the older prisoner is of paramount importance. A clear age cutoff for defining older prisoners would enable researchers to more consistently describe the population across facilities and would enable policy experts to better quantify health care and custodial costs for this high-intensity population. A consistent definition would facilitate the creation and assessment of guidelines to target screening and interventions toward lowering costs while enhancing the quality of care for older prisoners. To be consistent with data cutoffs reported by the Bureau of Justice Statistics, participants recommended defining older or geriatric prisoners as aged 55 years or older.

Roundtable participants also emphasized that chronological age is important only insofar as it is a surrogate measure of vulnerability and high health care costs, but that it is not always the optimal proxy measure. For instance, a 30-year-old quadriplegic may have far more functional impairment than a healthy person aged 68 years, and a person aged 50 years who has a history of traumatic brain injury may have more cognitive deficits than most 65-year-old prisoners.

Roundtable participants emphasized the need for a measure of age-related vulnerability that focuses on functional and cognitive status rather than on age alone.

### Train Staff and Health Care Providers in Aging

According to roundtable participants, the increasing numbers of older prisoners should prompt prisons to offer staff training in the common health conditions and needs of older adults. In 2008, the Institute of Medicine's *Retooling for an Aging America: Building the Health Care Workforce* reported that health care and service providers from many professions are underprepared to care for older adults, including those in the criminal justice system.<sup>21</sup> Although few geriatrics training programs exist for staff other than health care providers within correctional systems,<sup>22</sup> both correctional health care providers and correctional staff have requested training in geriatrics.<sup>23</sup>

Roundtable participants therefore recommended that existing geriatrics training programs for health care providers be adapted to correctional health care settings and that more training programs for custody staff should be developed and implemented. In particular, custodial staff (correctional, parole, and probation officer) training programs should focus on familiarizing officers with the following:

1. common normative age-associated conditions (e.g., vision loss and hearing deficits),
2. common pathological age-associated physical conditions (e.g., falls and incontinence),
3. common age-related clinically diagnosed cognitive conditions (e.g., dementia and delirium),
4. the challenges that all such conditions can pose in the custodial setting, and
5. ways to identify patients who need rapid assessment by a health care provider.

As an example, such training could help officers recognize that an older prisoner who seems to be disobeying orders may actually have a hearing impairment and prompt officers to seek a medical evaluation for the prisoner.

### Define Prison-Based Functional Impairment

In the community, functional impairment—the inability to perform the daily physical tasks

that are necessary for independence—is commonly measured by assessing independence in activities of daily living (bathing, dressing, eating, toileting, transferring). Moderate-level functional impairment in community-dwelling older adults is generally measured by instrumental activities of daily living (e.g., ability to cook, take transportation, shop, and do laundry). Many of the tasks that are fundamentally necessary for independence in prison are similar to those in the community (e.g., the ability to feed oneself, toilet, and transfer from bed to chair). By contrast, prisoners may not require the ability to perform some of the tasks that are required of many independent elderly persons in the community (e.g., shopping or doing laundry). However, the prison environment may require performance of other tasks for independence. One study identified prison-specific daily tasks, such as the ability to get from one's cell to the dining hall on time for meals, to climb on and off one's assigned bunk, to hear orders from staff, or to get down on the floor for alarms.<sup>24</sup>

Roundtable participants underscored the importance of defining activities of daily living that are necessary for independence in prison. Recognizing that such tasks may differ according to the facility or level of security in which a prisoner is housed, roundtable participants recommended that each facility create a list of the activities necessary for independence in each of their housing units and use these lists as a way to identify older prisoners in need of additional supervision and assistance.

### Screen for Dementia

In 2000, the World Health Organization estimated dementia to be the 11th leading nonfatal burden in the world.<sup>25</sup> In addition to memory loss, symptoms of dementia can include personality changes, such as attention deficits, hallucinations, delusions, hypersexual behaviors, agitation, and aggression. Yet few studies have assessed the prevalence of dementia among prisoners, especially in the United States. Prevalence estimates range from 1% to 30% and have been limited by small sample size, selection bias, and nonstandardized assessment tools.<sup>26–29</sup> Because of the aging of the prison population and a high prevalence of common risk factors for dementia among prisoners (e.g., traumatic brain

injury, low educational attainment, and drug and alcohol abuse),<sup>17,30–32</sup> coupled with data from preliminary studies,<sup>10,33</sup> we have good reason to believe that the prevalence of cognitive impairment among older prisoners is high.

The prevalence of dementia in prisoners is critical information that could be used to guide criminal justice health care policies. Dementia is a leading contributor to high health care costs.<sup>34–36</sup> In addition, cognitive impairment—especially if unrecognized—could have devastating effects in the criminal justice setting, such as unwarranted disciplinary actions for events related to poor judgment, victimization, and difficulty in complying with complex parole instructions. Cognitive impairment could also be harder to detect in prison because many daily tasks, such as laundry and cooking, are done for prisoners, and still other, more complicated tasks, such as balancing finances, are not necessary at all. Roundtable participants advocated for cognitive screening upon intake for all older prisoners and annually for prisoners who turn 55 years while incarcerated.

Yet little is known about which cognitive screening tools are best for use in prisoners. For example, although the Mini-Mental State Examination<sup>37</sup> has been tested in many subpopulations, including persons of lower socioeconomic status, and can be adjusted to account for low educational attainment, the Montreal Cognitive Assessment cognitive screening tool<sup>38</sup> includes more questions related to executive dysfunction, which may be a particularly salient feature to measure in prisoners. Roundtable participants agreed that cognitive screening tools that are used in the community may not perform as well in prisoners for a variety of reasons, including the presence of lower educational attainment and lower literacy among prisoners than among the general US population. Participants also agreed that no conclusive evidence has determined the best dementia screening tool for use in prisoners. Roundtable participants suggested that a major goal of prison-based health research should be to establish effective cognitive impairment screening tools for the prison population.

Roundtable participants identified many potential strategic uses for screening results, once the optimal cognitive screening tools for prisoners are established. At the individual level, such uses include decisions related to

classification and housing assignments, programming, treatment of chronic conditions, and discharge planning and parole supervision. At the system level, such information would be helpful in developing predictors of high cost among older prisoners and improving criteria for release and parole decisions. Research should also examine potential adverse effects of screening, such as stigma or vulnerability associated with being identified as a prisoner with a deficit and the potential for parole denials.

### Identify the Needs of Older Women Prisoners

The proportion of incarcerated women has grown quickly over the past several decades, although the incarceration rate of men (949/100 000 population) still far surpasses that of women (67/100 000).<sup>6</sup> At the same time, the incarceration rate has increased at a faster rate among women aged 55 years or older than among younger women.<sup>39</sup> Currently, women account for 5% of the total prison population aged 55 years or older.<sup>6</sup> Although there are still far fewer female than male prisoners, these demographic trends have important implications for the criminal justice health care system. However, probably because women have historically composed only a minority of prisoners, and because older women are but a small, if growing, subset of the female prison population, a paucity of literature exists on the health of older women prisoners.<sup>17,39</sup>

What is known is that women in the United States on average live longer and report worse self-rated health than do men.<sup>40,41</sup> Similarly, one study found that self-rated health was worse among older female than among older male prisoners.<sup>41</sup> In addition, older age is among the strongest predictors of health care utilization in prison, and women prisoners of all ages have been shown to use health care services more frequently than do men.<sup>18,42</sup> Thus the higher rates of diagnoses found in women prisoners of all ages<sup>43</sup> may at least partially reflect increased contact with the health care system.

Roundtable participants agreed that, in light of the increasing number of older women prisoners, expanded research on older women prisoners would lead to better guidance on the unique health and social issues that may affect this population.

### Create Uniform Policies for Geriatric Housing Units

One of the greatest challenges for the criminal justice system is how to adapt prison facilities designed for younger persons to accommodate an aging population. Often, facilities cannot accommodate wheelchairs or walkers. The Americans With Disabilities Act does not have any requirements for correctional facilities. However, it mandates that prisoners with disabilities cannot be segregated and cannot be denied access to activities or services.<sup>44,45</sup>

One solution is specialized facilities, often referred to as geriatric units. Such specialized facilities, which are intended for use only by frail older adults or disabled younger adults, differ by prison but might include, for example, handrails, accessible ramps and showers, and no bunk beds. Such geriatric units require a large up-front investment, yet proponents argue that centralizing aging populations enhances prisoner safety and make providing care easier and less costly.<sup>44</sup> Others argue that moving aging prisoners to a separate facility will remove them from their established prison social networks and make adjustment upon release more difficult.<sup>11</sup>

Although forcibly separating people because of their disabilities is a violation of the Americans With Disabilities Act, clustering older adults in a model similar to that found in long-term care facilities may be appropriate if it is available to prisoners as a choice. However, clustering older prisoners together in housing units has the potential for both benefits and harms. Aggregating older prisoners into living quarters with greater access to assistance, supervision, and health care could help to target services and medical care programs to prisoners at highest risk of adverse health outcomes.<sup>44</sup> This could decrease cost by streamlining staff, improving chronic disease management, and decreasing hospitalizations.<sup>44</sup> Drawbacks to clustering older prisoners should also be considered. For instance, older prisoners are often regarded as a stabilizing force in the general prison population.<sup>46</sup> In addition, older prisoners may not want to be segregated by age, for many reasons.<sup>11</sup> For example, they might have to leave friends or family in the general prison population, or they

might enjoy interacting with younger prisoners. Therefore, roundtable participants agreed that age clustering can be beneficial in some circumstances, but recommended against policies that ignore prisoner preference.

Roundtable participants discussed the many physical changes that will be necessary in prisons in the years to come. For example, an increasing number of older prisoners will require 24-hour nursing care and accessible housing and recreation spaces that comply with the Americans With Disabilities Act. More prisons will need to develop plans for a continuum of care, from community independent living to assisted living facilities to skilled nursing care. In light of the limited numbers of 24-hour-care housing units and the high costs associated with such care, roundtable participants also underscored the importance of developing validated criteria for long-term care classification. Such a classification schema still needs to be developed and validated but might include patient preference, functional and cognitive assessments, or interdisciplinary assessment. Finally, participants agreed that all new construction should take into account the aging population and consider age-friendly architectural details such as low beds and toilets, wide doors for wheelchairs and assistive devices, and proximity to the dining hall.

### Identify Release and Reentry Challenges for Older Adults

Because the aftermath of prisoner release is characterized by high rates of mortality, homelessness, reincarceration for parole violations, and heavy use of emergency medical services,<sup>13,14,47,48</sup> a fundamental goal of any criminal justice policy agenda should be to determine how best to help individuals plan for and manage their health care needs upon community reentry. For instance, because of the high rates of multiple comorbidities in older prisoners and high rates of postrelease mortality in comparison with younger prisoners,<sup>47,48</sup> specialized services may need to be developed for particularly frail or medically complex older persons upon release.

Postrelease transitional health care programs have been developed and implemented in several communities and have been particularly successful at enhancing access to medical care and reducing emergency department visits

for chronically ill recently released prisoners.<sup>49,50</sup> In addition, studies suggest that self-efficacy for health management among older prisoners is positively correlated with health-promoting behaviors (e.g., taking safety precautions, exercising, and avoiding smoking)<sup>51</sup>; self-efficacy might therefore be an important educational component of effective reentry programs. Furthermore, prisoners have the nation's lowest literacy rates.<sup>52</sup> In light of the association between low health literacy and mortality among older adults,<sup>53</sup> a focus on health literacy could be another critical component of successful reentry programs. Roundtable participants agreed that more research is needed to understand the role of transitional programs in improving outcomes for older persons after release, with a special focus on those who are cognitively impaired.

### Improve Medical Release Policies

Medical release policies focus on prisoners whose age or health limits the risk they pose to the community. Releasing these prisoners could save correctional departments substantial amounts of money.<sup>54</sup> At the end of 2009, 15 states and the District of Columbia had provisions for geriatric release.<sup>4</sup> These provisions vary by state and include discretionary parole, inmate furloughs, and medical or compassionate release. However, early release mechanisms are rarely used, eligibility requirements are narrow and vary by state, and application procedures may discourage older prisoners; as a result, few prisoners are granted early release.<sup>4,18,55</sup> For example, Colorado released 3 prisoners under its policy from 2001 to 2008. As of 2009, Oregon had released no more than 2 prisoners per year. From 2001 to 2007, Virginia released 4 inmates.<sup>4</sup>

Roundtable participants agreed with others who have called for the creation of uniform, transparent medical eligibility criteria for compassionate or medical release that reflect the ways that people experience serious medical illness and death, including progressive frailty and dementia.<sup>55</sup> In addition, participants agreed that policy reforms are needed to address procedural barriers that could prevent older prisoners from accessing the application process, such as written requirements (which could have a negative impact on those with low literacy) or systems that require a prisoner to

initiate the petition (which could exclude prisoners with dementia).<sup>55</sup> Policy in this area should address the barriers to accessing early release when medically appropriate.

### Enhance Prison Palliative Care Programs

Because many older adults will develop a serious medical illness and die in prison but will not qualify for early release, enhancement of prison palliative care services is greatly needed. Several notable, well-established, and successful hospice models operate in prisons across the United States, but palliative care programs that focus on preventive and diagnostic care at the time of diagnosis of a serious medical illness are less prevalent in the correctional health care setting.<sup>56</sup> Hospice is care focused on people who are actively dying (usually in the last 6 months of life). Palliative care—care that is focused on providing guidance and symptom control for seriously ill persons—has a demonstrated ability in the community to improve quality of life while reducing health care costs.<sup>57</sup>

In the criminal justice system, research is needed to understand the potential cost savings and care improvement associated with palliative care. Participants called for a broader approach to palliative care in the criminal justice system that encompasses all seriously ill prisoners and not just those nearing the final stages of the dying process. Roundtable participants also agreed that a fundamental tenet of palliative care is health care provider–patient trust. Because trust can be a barrier in the prisoner–provider relationship in prison,<sup>56,58</sup> expansion of effective palliative care programs may require independent palliative care contractors. In addition, participants underscored the need for a better understanding of prisoners' attitudes and beliefs about hospice and palliative care. They recommended that palliative care programs be piloted and tested and that policies address the barriers to providing quality care for prisoners with advanced medical illness.

Even in the absence of a fully operationalized palliative care program, prison health care systems can effectively enhance care for seriously ill prisoners. For instance, many physicians have not had training in pain management or in how to talk to people with life-challenging medical conditions.<sup>59,60</sup> Programs to train providers in these skills have

been developed and are widely available. Among the benefits of prison-based hospice programs are the effects they have on the institution and on prisoner volunteers in hospices; roundtable participants agreed that studies exploring such benefits of hospice and palliative care programs should be encouraged.

## DISCUSSION

Increasing numbers of older prisoners, coupled with soaring health-related costs and a relative dearth of evidence-based information about the health and health care needs of older prisoners, necessitates a policy agenda to improve cost-effective quality care for older prisoners. We assembled a group of specialists in prison health care, geriatrics, palliative medicine, mental health, geriatric psychiatry, prison administration, prisoner advocacy, and prison health care policy to participate in a roundtable event to identify priority areas, knowledge gaps, and a series of action items to improve the care of older prisoners.

The group's consensus recommendations focused on 9 priority areas: defining the term *older prisoner*, correctional staff training, defining functional impairment in prison, recognizing and assessing cognitive impairment and dementia, identifying the special needs of older women prisoners, creating uniform policies for geriatric housing units, identifying challenges for older adults upon release, improving medical early release policies, and enhancing prison-based palliative medicine programs. Some of these priority areas will require further investigation to identify optimal interventions and solutions to the aging crisis in the criminal justice system.

As the criminal justice system works to decrease its burgeoning population, it is important that national and state policymakers work with corrections and community organizations to understand the number of older inmates who are dual eligible (Medicare and Medicaid eligible),<sup>61</sup> the impact on county and state services and budgets, and how gaps in the continuum of care can be addressed. This is especially important in states undergoing health reform initiatives. A first step will be to focus on these 9 priority areas to set the stage for collaboration among health care providers, health care professional societies, researchers,

prison administrators, civil rights advocates, and legislators, with the goal of optimizing the health and minimizing the costs associated with our nation's growing population of older prisoners. ■

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### Contributors

B. A. Williams designed the study, planned and interpreted the analysis, and drafted the article. M. F. Stern, J. Mellow, and R. B. Greifinger helped to design the study. M. F. Stern, J. Mellow, M. Safer, and R. B. Greifinger made critical revisions to the article. J. Mellow and R. B. Greifinger secured funding for the meeting that led to this study. R. B. Greifinger supervised all aspects of the study design, analysis planning, interpretation, and article preparation.

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Institutional review board approval was not needed for this study because no human participants were involved.

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