

Academic Medicine

The Compelling Value of Correctional Health Care

--Manuscript Draft--

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Abstract:	Academic health centers (AHCs), particularly publicly funded institutions, have as a central part of their missions the treatment of disadvantaged populations, the training of the next generation of clinicians, and the development and dissemination of new knowledge to reduce the burden of disease and improve the health of individuals and populations. Arguably, the incarcerated population has the greatest illness burden and health disparity in the United States, even by comparison to inner city environments. Yet, only a small proportion of AHCs have included incarcerated populations in their missions. Those AHC's that have done so benefit substantially, as do their patients, students, and faculty. Correctional health care brings together an opportunity to target the AHCs' core missions of clinical service, education, and research, along with the opportunity to enhance the financial stability of institutions crucial to our society.

David P. Sklar, MD
Editor-in-Chief
Academic Medicine

RE: "The Compelling Value of Correctional Health Care"

(Manuscript #AcadMed-D-13-01733)

Dear Dr. Sklar,

We were delighted with the acceptance of our paper, "The Compelling Value of Correctional Health Care" (manuscript #AcadMed-D-13-01733) and appreciated the thoughtful comments from the Reviewer. We have modified the paper as requested and resubmitted as per on-line protocol in Track Changes format. Below, we detail the changes made in response to the requests.

Specific reviewer requests and responses:

1. A lot of AHCs do not want to have their paying patients sitting side by side in the clinic with patient in orange jump suits. This is a reality even if not a pretty one.

Response: On page 8, the following paragraph is inserted:

Specialty care may require inmate transportation to the AHC campus and hospital leaders worry that community patients may be nervous or unhappy being in the midst of inmate patients, who are readily identifiable due to jumpsuits, shackles, and armed security staff in their midst. A common strategy to avert such concern is the establishment of, a separate, secure, dedicated clinic setting for care delivery. Correction officers are present to ensure public safety. Telemedicine consultation is also rapidly evolving for this population. For procedure-based services, corrections-dedicated clinics are often scheduled.

2. In addition, the safety issues and litigation risks tend to be more serious than perhaps is apparent from your current commentary.

Response: The safety issue is addressed as follows on page 7:

There are other pragmatic concerns as well. Many uninitiated health care providers express concerns about safety within a correctional environment. In fact, the rate of assaults and violent acts by inmate/patients against health care staff working within the Departments of Corrections in Connecticut, New Jersey, and Massachusetts have been consistently below rates found in the community. Over the past 12

months, only 1 of 2,000 health care staff working within correctional settings from our three States was assaulted. This rate of 0.5 per 1,000 falls below national community rates of 0.9 for health service workers, 1.5 for social service workers, and 2.5 per 1000 for nursing and personal care facility workers.²³ In fact, it is our belief that the intensive employee orientation and ongoing staff training about security and boundary issues leads to greater staff safety than in community settings.

Response: Litigation risks are addressed as follows (page 6-7):

Leaders of AHCs may worry about risk management issues surrounding care of a high risk population with a constitutional mandate for care. Providers of health care to an inmate population are more likely to face lawsuits. Litigation diverts the limited time of correctional clinicians and administrators. Of note, the cost of litigation is ultimately absorbed by departments of corrections or the state, not the AHC. Since 2008, the New Jersey Department of Corrections (the state's prison system) has benefitted from a reduced number of litigations and no payouts to inmates to date, after changing from a risk-based contract with a private, for-profit corporation to a cost-based agreement with its AHC at Rutgers University. It is our contention that medical staff decisions based upon medical necessity and the absence of financial incentive to restrict care are responsible for this change. Such an arrangement is more easily defensible, creating savings for the State. AHCs also recognize the importance of attending to patient satisfaction, service recovery, and advocating for the health needs of our patients which reduces the potential for litigation. In support of medical providers, AHCs bring a culture of education, peer support, and quality improvement that translates into improved health outcomes.

3. Perhaps most important, running a correctional health program is not a competency that AHCs typically have. . . .

Response: The following was modified on page 6:

AHCs have much to offer correctional systems by providing expertise in evaluation, quality improvement, evidence-based practice, and implementation science to address these and other challenges. Indeed, for AHCs to thrive, developing population health skills in correctional care provides an excellent environment. Developing structured care-transformation efforts within this fully capitated care system may inform similar community efforts underway. Such efforts include the development of accountable care organizations and capitated public insurance systems. Similarly, the case for universities working with state Medicaid departments has recently been described.²²

4. . . . there is not a clear faculty track for the faculty who are hired.

Response: The following was added to page 9:

A related potential concern is faculty development. Faculty development is addressed in multiple ways. Faculty may spend all or part their clinical time in corrections; their teaching and research may or may not be directly linked (as is the case in general). Use of medical educator or clinician-faculty tracks is common.

5. This will require cutting back some of the current material that is presented to remain in the 2,000 word range, but we feel the end product will provide a clearer and more relevant picture for readers.

Response: Individual words, phrases, and sentences were eliminated or rephrased throughout the document to reduce the length to a 2,000 word range (2,288), inclusive of references.

We sincerely appreciate the invitation to submit this commentary to ***Academic Medicine*** and hope these revisions meet your approval.

Respectfully,



Robert Trestman PhD MD
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University of Connecticut Health Center

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ABSTRACT

Academic health centers (AHCs), particularly publicly funded institutions, have as a central part of their missions the treatment of disadvantaged populations, the training of the next generation of clinicians, and the development and dissemination of new knowledge to reduce the burden of disease and improve the health of individuals and populations. Arguably, the incarcerated population has the greatest illness burden and health disparity in the United States, even by comparison to inner city environments. Yet, only a small proportion of AHCs have included incarcerated populations in their missions. Those AHC's that have done so benefit substantially, as do their patients, students, and faculty. Correctional health care brings together an opportunity to target the AHCs' core missions of clinical service, education, and research, along with the opportunity to enhance the financial stability of institutions crucial to our society.

Academic health centers (AHCs), particularly publicly funded institutions, have as a central part of their missions the treatment of disadvantaged populations, the training of the next generation of clinicians, and the development and dissemination of ~~new~~ knowledge to reduce the burden of disease and improve the health of individuals and populations. Yet, only a small proportion of AHCs have included incarcerated populations in these missions. Incarceration rates in the United States have increased 3.5 fold since 1980; ~~and~~ the U.S. incarcerates more persons than any other country. ¹ On any given day, 1 in 108 adults is incarcerated, with a disproportionate risk of incarceration for persons of color. ~~African American men have a 1 in 3 lifetime risk of incarceration. Given these dynamics,~~ AHCs have an opportunity to serve this disadvantaged population through collaboration with correctional facilities and systems. ^{2,3}

Only a few states' correctional systems have benefited from partnering with an AHC rather than ~~continuing to outsource~~ health care to private providers or ~~to providing the~~ services themselves. These states ~~have~~ included: Texas ~~as of~~ since 1978, ⁴ Connecticut ~~as of~~ since 1997, ⁵ Georgia ~~as of~~ since 1997, ⁶ New Hampshire ~~as of~~ since 2001, ⁷ Massachusetts from 1998-2013, ² and New Jersey ~~as of~~ since 2005. ³ These ~~academic medical centers~~ AHCs implemented ~~large scale~~ health care system reform ~~within their state prisons~~, and ~~demonstrated a track record of~~ ~~have~~ improved ~~ing~~ care while controlling cost. ~~"as evident by regional or national accreditations, documented health care outcomes, and state auditor cost and quality reviews."~~ ^{4,8}

~~It is safe to assume that m~~Most AHCs remain timid at best about the potential institutional benefits ~~gleaned from of~~ a commitment to correctional health. Common among those ~~unfamiliar with correctional health care are~~ concerns ~~are about~~ the value and popularity of training behind bars, the cost, ~~and~~ liability, ~~and pragmatics~~ of caring for a medically complicated population ~~with limited resources~~, and the viability of correctional health research and extramural research funding. From the perspective of those AHCs actively engaged in correctional health delivery, we have found ~~that~~ these concerns ~~are~~ addressable and that the numerous benefits deserve consideration.

THE CASE FOR ~~CLINICAL SERVICE TO IMPROVING~~ PUBLIC AND POPULATION HEALTH

Illness burden by prevalence and acuity is among the highest in incarcerated populations,^{9, 5} with multiple unique challenges.¹⁰ For greatest impact of care delivery and training opportunities for all clinical disciplines, working with the incarcerated population provides enormous opportunities.

Health disparity is arguably the most extreme in this population, even by comparison to general inner city populations. Those who become incarcerated are typically uninsured or Medicaid eligible.^{11,12} They tend to have ~~very~~ low rates of community-based care, whether due to lack of access or personal choice. Correctional systems have the potential to become integrated into medical home models and build upon ~~integrated continuity of care~~ continuity-of-care systems.^{12,13}

The public's health is directly affected by engaging this population. Over 95% of the incarcerated population returns to the community.¹⁴ ~~They return to their families, friends, and ongoing relationships.~~ If, during incarceration, their illnesses are recognized, ~~their~~ health status ~~has~~ improved, ~~they have acquired~~ knowledge of illness self-management ~~enhanced~~, medications ~~have been~~ optimized, ~~their~~ addictions ~~have been~~ addressed, and ~~their~~ ability to regulate their emotions and ~~their~~ relationships with others ~~have been~~ enhanced, the community ~~outcomes benefits~~ are logically apparent ~~and beneficial~~.^{10,15-20} Adaptations or de novo development of harm reduction techniques in these settings provide an excellent framework for ~~enhanced improved~~ function for these patients, both while incarcerated and when back in the community.

Most prison systems, and many large jails, are ~~single-payer systems of care~~.²⁴ ~~Many are also~~ single-line items on the state or county budget, creating global capitated populations that have grown ~~in proportion to the given the~~ increasing prevalence of incarceration.^{8,21} Moreover, longstanding federal statutory exclusions of inmates from Medicaid and Medicare benefits leave state and local governments without federal financial support. In particular, the high prevalence of serious mental illness and chronic infections ~~brought on~~ ~~by subsequent to~~ injection drug use carry ~~with them~~ very high pharmaceutical costs ~~for expensive therapies for these conditions~~. We have done little to ~~consistently~~ use these opportunities to model optimum managed health care and population health ~~with inmates, one of the only two populations in the United~~

~~States with a constitutional right to adequate medical care (the other being Native Americans living on reservations).~~

~~Academic health centers~~AHCs have much to offer correctional systems by providing expertise in evaluation, quality improvement, evidence-based practice, and implementation science to address these and other challenges. Indeed, for AHCs to thrive, developing population health skills in correctional care provides an excellent environment. Developing ~~and testing~~ structured care-transformation efforts within this fully capitated care system may inform similar community efforts underway. Such efforts include the development of accountable care organizations and capitated public insurance systems ~~such as Medicaid and Medicare~~. Similarly, the case for universities working with state Medicaid departments has recently been described.²²

Leaders of ~~academic health centers~~AHCs may ~~also~~ worry about risk management issues surrounding care of a high risk population with a constitutional mandate for care ~~coupled with strained resources~~. Any pProviders of health care to an inmate population will are more likely to face lawsuits. Litigation diverts the limited time of correctional clinicians and administrators. Of note, the cost of litigation is ultimately absorbed by departments of corrections or the state, not the AHC ~~which will pay for the higher insurance costs for inmate health care~~. Since 2008, the New Jersey Department of Corrections (the state's prison system) has benefitted from a reduced number of litigations and no payouts to inmates to date, after changing in 2008 from a risk-based contract with a private, for-profit corporation to a cost-based agreement with its AHC at

Rutgers University. ~~This is due to the fact that~~ It is our contention that ~~M~~ medical staff decisions are based upon medical necessity, and the university does not profit from denying medical care and the absence of financial incentive to restrict care are responsible for this change. Such an arrangement is more easily defensible, creating savings for the State. AHCs also recognize the importance of attending to patient satisfaction, service recovery, and advocating for the health needs of our patients which reduces the potential for litigation. In support of medical providers, AHCs brings a culture of education, peer support, and quality improvement that translates into improved health outcomes.

There are other pragmatic concerns as well. Many uninitiated health care providers express concerns about safety within a correctional environment. In fact, the rate of assaults and violent acts by inmate/patients against health care staff working within the Departments of Corrections in Connecticut, New Jersey, and Massachusetts have been consistently below rates found in the community. Over the past 12 months, only 1 of 2,000 health care staff working within correctional settings from our three States was assaulted. This rate of 0.5 per 1,000 falls below national community rates of 0.9 for health service workers, 1.5 for social service workers, and 2.5 per 1000 for nursing and personal care facility workers.²³ In fact, it is our belief that the intensive employee orientation and ongoing staff training about security and boundary issues leads to greater staff safety than in community settings.

Specialty care may require inmate transportation to the AHC campus and hospital leaders worry that community patients may be nervous or unhappy being

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in the midst of inmate patients, who are readily identifiable due to jumpsuits, shackles, and armed security staff in their midst. A common strategy to avert such concern is the establishment of, a separate, secure, dedicated clinic setting for care delivery. Correction officers are present to ensure public safety. Telemedicine consultation is also rapidly evolving for this population. For procedure-based services, corrections-dedicated clinics are often scheduled.

THE CASE FOR CLINICAL TRAINING

Structured training of students with correctional populations can ~~work to destigmatize,~~ demonstrate the ~~potentially rewarding~~ value of providing meaningful care to the disadvantaged, and educate developing clinicians on the critical importance of primary and chronic disease care management. Health care delivery behind bars requires a unique set of competencies seldom taught in traditional training.²³⁴ Supervised rotations and internships are routine in several systems; in the past year, the University of Connecticut ~~has~~ hosted over 100 nursing, social work, psychology, pharmacy, and physician trainees in Connecticut's jails and prisons. For example, adult and child Psychiatry residents rotate with faculty supervision in jail and prison settings, with acute and continuity experiences, respectively. Cumulatively, composite resident evaluations from these rotations in recent years (N=58) have scored 4.9 out of 5 (where 5 is 'Excellent'). Rutgers University, in collaboration with the New Jersey Department of Corrections has developed a forensic Psychiatry fellowship and funds positions for psychiatric fellows and psychology interns. ~~;~~ ~~and~~ ~~b~~ Both the University

of Massachusetts Medical School and Rutgers University offer interdisciplinary training experiences for medical and nursing students in prisons. Nova Southeastern University College of Medicine developed a fellowship in Correctional Medicine which has now been recognized by the American Osteopathic Association as an official specialty. The Universities of Connecticut and North Texas are inaugurating similar accredited programs. ~~Continuing medical education is critical for maintaining and enhancing clinician skills.~~ Further, academic detailing or integrating academic faculty into the clinical workforce can provide excellent stimulation that supports ongoing care improvement.

The high prevalence of particular conditions lend themselves to specific training opportunities for subspecialty training programs. Serious mental illness, HIV and HCV infection (as well as co-infection), and substance abuse provide tremendous opportunities for training in psychiatry, infectious disease, and addictions treatment.

[A related potential concern is faculty development. Faculty development is addressed in multiple ways. Faculty may spend all or part their clinical time in corrections; their teaching and research may or may not be directly linked \(as is the case in general\). Use of medical educator or clinician-faculty tracks is common.](#)

THE CASE FOR RESEARCH AND DISSEMINATION

Consistent with the findings and recommendations of the 2007 Institute of Medicine report on research with prisoners, ~~the~~ incarcerated populations have become, ~~through well-meant efforts to protect them from abuse,~~ an understudied population.^{245,256} We know little about appropriate adaptations of care for correctional environments and ~~the~~ optimum ways to address disease burden and care management. One example- How do we adapt the chronic illness care model to enhance diabetic patient self-efficacy in an environment where patients cannot monitor glucose levels, self-inject, or handle syringes?

SUMMARY

The three public AHCs featured here have provided service to sister state agencies by developing full-scale care delivery systems for inmate populations within their states. In turn, the clinical, education, and research missions of these universities have been enhanced through the development and dissemination of innovative programs addressing the complex needs of inmate populations. Public AHCs, and in truth all AHCs, are struggling to develop viable financial models adapted to the ~~current and~~ rapidly changing clinical reimbursement and research funding climate. Working collaboratively with state and county correctional systems may provide a stable income stream while providing excellent clinical training opportunities, a learning laboratory of evolving care delivery models for high risk populations, and global risk or managed contracting.

AHCs are mission-driven institutions. Correctional health care is, for the foreseeable future, an environment that brings together an opportunity to target

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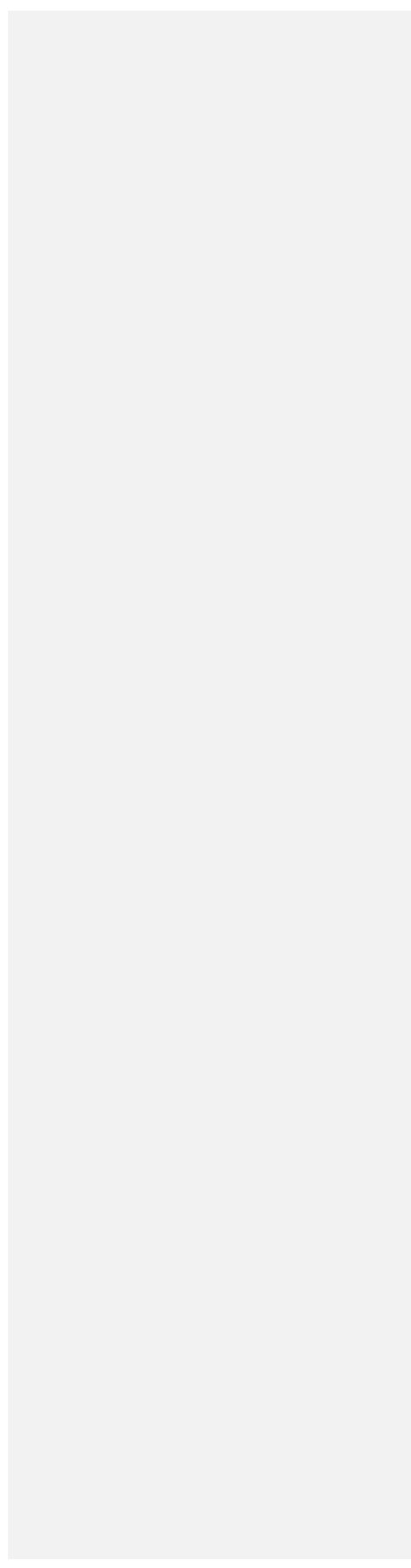
those core missions of clinical service, education, and research, along with the opportunity to enhance the financial stability of institutions crucial to our society.

Disclosures:

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Other disclosures: None

Ethical approval: Not applicable



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