FEATURES

Corrections vs. the Free World: A Comparison of Diabetic Care

Flu Vaccination Among General Population Inmates in a Large Urban Jail System — Los Angeles, 2007-2008

Reducing Inmate Prescription Costs Makes Dollars and Sense

Linkage to Treatment and Supportive Services Among HIV-Positive Ex-Offenders in Project Bridge

Enhancing Continuity of Care Through Medical Discharge Planning in a Large Urban Jail System

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Correctional Health Today

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Letter From ACA’s President

Throughout the nearly century and a half of the American Correctional Association’s rich history, it has always recognized the important mission of public safety in the corrections profession. The association has been, and continues to be, a national and international leader in the professionalization of corrections. ACA’s professional development opportunities allow people in every correctional discipline the ability to further their knowledge, achieve recognition, and prepare for increasing responsibility and promotion.

ACA’s standards and accreditation program is unmatched by any other organization. The association’s policies and resolutions illustrate its commitment to sound correctional practices. We have historically taken positions on issues such as: calling for the end of medical experimentation on offenders, humane treatment of offenders, mental health services for those in need, and separation of juvenile offenders from the adult system.

ACA’s recognition of adequate health care for offenders dates back to its beginnings at the first Congress of Correction in Cincinnati in 1870. Through our founding principles, we expressed the need for treatment for those in our charge. Revisions of those principles in 1930, 1960, 1970, 1982, and 2002 have reiterated the need for proper medical and mental health treatment of offenders. Those principles have carried into ACA’s standards and accreditation process as well.

The association’s health care and treatment standards are written, debated and reviewed by the best health care and security personnel in corrections. ACA is the only correctional accrediting agency in the nation that combines treatment and security personnel in the advancement of our standards and accreditation process. ACA has long recognized that the two major components of corrections — treatment and security — were often isolated from each other. At times they were even at odds with one another. We also recognized that treatment and security must work together to effectively serve public safety and the needs of offenders. ACA has dedicated time and attention toward maintaining its worldwide leadership of a unified correctional work force, a work force that values treatment as equal to security.

ACA can only be as relevant as is our members’ interest and participation in the organization. We grow with new ideas, new input and new opinions. Whether you are an active practitioner, an academician, a student of corrections or even an interested citizen, we need your help. Your ideas and opinions make our profession stronger and more professional. We invite your active participation in ACA, your constructive criticism and your input. Treatment is not an exact science and it is always evolving and improving. By our association being at the cutting edge of corrections, ACA becomes a leader in advocating for you and your profession. Call, write or e-mail our national office and help us to continue our march toward a brighter future for staff and offenders alike.

Correctional Health Today (CHT) exemplifies the importance ACA places on the health care of offenders. CHT is a research-based, peer-reviewed publication that will help corrections professionals deliver the very best in proven treatment modalities. CHT is the latest example of ACA addressing the needs of those in the corrections field and remaining the national voice of corrections.

Harold W. Clarke
ACA President, 2008-2010
Health care is a vital component of the corrections profession. Public safety is enhanced when we treat offenders in need of physical and mental health care. Offenders present increasingly challenging and complex treatment needs. And their confinement provides a unique opportunity to reach a group of people that, because of their preconfinement behaviors, have an increased risk of developing infectious diseases, chronic medical conditions, and significant mental health issues. This same group of offenders will likely rejoin the community at large. Therefore, it is imperative to public safety that treatment of any of their health-related problems be addressed. In the long term, this will help improve the public health of our country. We in corrections have a responsibility to ensure that when offenders are released they are better off than when came into our care.

Correctional Health Today (CHT) is another step in helping the correctional work force understand the ever-developing body of knowledge in health care delivery. As the field becomes even more sophisticated, evidence-based actions are going to be demanded by funding agencies and by regulators. CHT will help to disseminate research on all correctional health care disciplines.

The latter half of the 20th century saw remarkable advances in understanding the disease process and the development of effective tools to screen for, diagnose, and treat diseases, with reliably measured clinical responses. Scientific, clinical, and technological research has led to the development of vaccines to protect against deadly infectious disease, advanced diagnostic equipment and laboratory procedures, techniques for successful tissue and organ transplants, understanding the impact of periodontal disease and cardiovascular health, and the discovery of effective antibiotics. This research has also led to the understanding of the physiological impact of stress and the role of neurotransmitters in mental health, improved drug delivery systems, the ability to diagnose genetic disorders through DNA mapping, treatments for hypertension, and many, many other advances. HIV is no longer a death sentence due to the development of new medications and treatment regimens.

CHT is a peer-reviewed journal that will make an important contribution, adding to the body of knowledge of both health care and security in corrections. It is imperative that clinicians continue to build upon that knowledge. Clinical and health policy decisions should be made based on evidence-based foundations and valid data collection to ensure the best diagnoses are made and the most effective treatments are provided in a cost-conscious way.

Health services for offenders are guaranteed through federal court action. The founding principles of the American Correctional Association, developed in 1870 and revised to remain relevant as times have changed, include humanity, justice, protection, opportunity, knowledge, competence, and accountability. These very principles of ACA, for nearly a century and a half, have recognized that treatment is a fundamental part of corrections. Long before any federal court action guaranteed offenders the right to adequate health care, ACA was at the forefront in stating the importance of treatment. ACA members know that accountability includes the humane provision of comprehensive treatment services to offenders and it is in the best interest of the public that they are released in an optimal state of health.
Corrections professionals have a responsibility to society and to the offenders in their care to continue to develop and evaluate efficient, effective, and cost-conscious methods of delivering valid, evidence-based treatment and programs within corrections. We also have a legal, ethical, and moral obligation to return offenders to the community in a reasonable state of health to facilitate their successful reentry. As professionals, we have a responsibility to base treatment on current information and successful practices. We must be committed to remaining informed and contributing to the evolution of the health care profession. This journal will add to that knowledge and evolution. ACA hopes that CHT will serve as a forum for implementing, exploring, and developing the responsibilities and obligations that are critical to effective correctional health care.

In order for truly professional health care treatment to work in corrections, a partnership between and among security and treatment professionals is necessary. For far too long, they have not always worked together. We all need each other; we are part of one system; we are working toward one goal; we are all professionals in our respective disciplines; and we all serve public safety and the greater good of our society. ACA is excited about this effort and thanks all those who have made this publication a reality.

E.G. & D.T.
Corrections vs. the Free World: A Comparison of Diabetic Care

Diabetes is at least as common in corrections as in the “free world.” Specific surrogate quality endpoints have been developed to track and compare parameters of care and some, like the Healthcare Effectiveness Data and Information Set (HEDIS), can be easily developed and adapted to corrections. The Ohio Department of Rehabilitation and Correction (ODRC) recently tracked these measures and used the data to compare the department to the top 10% of health plans in the region. While certain aspects of ODRC’s care exceeded the benchmarks, the comparison also allowed the agency to focus its attention on areas needing improvement. The incorporation of well-targeted prospective “forcing strategies,” combined with continued retrospective chart reviews, has opened the door to continuous quality improvement in diabetic care for ODRC’s patients.

Introduction

In an effort to improve quality of care in the correctional setting, ODRC recently incorporated innovative data collection schemes, comparative initiatives to national benchmark information, and forced strategies to ensure compliance with identified best practices. In order to avoid the common scenario of isolated outliers defining the “quality” of the system, the researchers thought it best to take a proactive approach to assess the overall true quality of ODRC’s medical care by comparing it to nationally recognized benchmark data in common use by insurance companies and private medical practices. What follows is the path that the researchers initiated and are currently following, which others can hopefully use to improve their systems as well.

Background

Epidemiology. Diabetes affects more than 23 million people in the United States, with a cost of more than $174 billion annually. More than 7% of Ohioans older than 20 have diabetes (Ohio Department of Health, 2008). In Ohio’s adult prison system, more than 2,100 patients have diabetes, which is more than 4% of its population of roughly 50,000. The impact of diabetes on morbidity, mortality, and health care costs are staggering. Diabetes is the seventh leading direct cause of death in the United States (Centers for Disease Control, 2008), and with its inherent complications and comorbidities, is probably indirectly responsible for additional deaths. Diabetics often develop irreversible complications, such as amputation, blindness,
kidney failure, heart attack, and stroke, which increase when the disease and its comorbidities, like hypertension, are not properly managed. But, these complications can potentially be eliminated or reduced with common evidenced-based assessments and interventions.

**Performance measures.** The National Committee for Quality Assurance (2008) has developed the Healthcare Effectiveness Data and Information Set (HEDIS), a tool used by more than 90% of America’s health plans to measure performance on important dimensions of care and service. The HEDIS measures for diabetic care include interventions targeted at aggressive control of hyperglycemia and hyperlipidemia, along with primary, secondary, and tertiary prevention measures. These measures provide the correctional health care setting an excellent means to assess and compare the quality of its health care against free world health care plans.

Recognizing that the effectiveness of any program is measured by the outcomes it produces, and consistent with evidence-based management of health care standards from the American Correctional Association, Ohio has implemented its Diabetic Outcome measurement initiative to improve chronic disease management by using the HEDIS measures to compare its diabetic chronic disease program to free world results.

Similar measures have been previously used in corrections during the National Commission on Correctional Health Care’s study with the Robert Wood Johnson Foundation, which used clinical guidelines to improve chronic disease care (Robert Wood Johnson Foundation, 2004). The results demonstrated that correctional health care programs can meet HEDIS benchmarks and their conclusions implied that improvements in quality care must continue to occur if ODRC is to make a national commitment to quality correctional health care. ODRC is pursuing this commitment toward quality health care, initially within its diabetic disease management program.

**Method**

**Quality measures.** Consistent with any quality improvement initiative, baseline data were needed to determine both improvement goals and strategies. ODRC currently has 2,106 diabetic patients enrolled in the Chronic Care Clinic disease management program, and uses a Web-based application (see Appendix A for exact form) to track and monitor aspects of chronic care within all 32 of Ohio’s correctional facilities. This application includes tools to measure quality of care via several standardized HEDIS performance measures, including:

- Number of patients who received HgbA1C testing in the previous year;
- Percentage of patients whose HgbA1C is poor (HgbA1C > 9.0);
- Percentage of patients who received diabetic eye exam testing in the previous year;
- Percentage of patients who received LDL testing in the previous year; and
- Percentage of patients who received screening for diabetic nephropathy in the previous year.

Although HEDIS recommends ensuring other measures in the diabetic disease management program are completed and ODRC’s Bureau of Medical Services has incorporated them into its protocols, it does not provide statistics or reporting mechanisms for comparison of these recommendations:

- Percentage of diabetic patients having a comprehensive foot exam in the previous year;
- Percentage of patients who received tobacco cessation counseling in the previous year;
- Percentage of patients on aspirin prophylaxis if older than 30 years of age and not contraindicated;
- Percentage of patients in good control of blood pressure (lower than 130/80);
- Percentage of patients who were offered/received annual influenza vaccination; and
- Percentage of patients who were offered/received pneumococcal vaccination.

**Data collection.** Data were collected from chart reviews on a randomly generated sample of 396 patients during the month of January 2008. Patients were selected from a comprehensive list of 2,106 diabetics (to maintain a power
level of 0.80). If patients had been released and their medical file was not available, replacements were selected from the remaining pool of patients. Data collected were entered into Survey Monkey, a Web-based data collection tool. After data compilation, analysis of the data was completed and compared with region-alized health care programs within Ohio from the National Committee for Quality Assurance’s HEDIS “report card” section of the national Web site (http://reportcard.ncqa.org/ plan/external/plansearch.aspx).

Results

Category 1: Measures for which comparison data are available. Testing for HgbA1C helps to determine the degree of control for patients with diabetes, and stratification analysis of the result can provide an assessment of the degree of diabetic control and hence an estimate of the quality of diabetic care. ODRC outperformed all health plans within central Ohio in these two key measures. ODRC completed testing in 95.2% of patients with diabetes, versus the top 10% of health plans in Central Ohio, which tested 92.9% of diabetic patients (see Figure 1). Ideal HgbA1C levels for diabetics have been established by the American Diabetes Association to be under 7.0 mg/dl, while patients with HgbA1C higher than 9 are generally accepted to be in poor disease control and presumably at increased risk to develop the myriad of diabetic complications. The top 10% of health plans in Central Ohio had 18.9% of patients defined as in poor control, while the ODRC had just 16.9% in poor control (see Figure 2).

Screening for diabetic complications includes testing for diabetic retinopathy, which requires an annual dilated eye examination by an optometrist or ophthalmologist. ODRC completed screening exams on 56% of eligible patients, while the top 10% of health plans performed slightly better at 64.6% (see Figure 3). Screening for nephropathy using HEDIS data entails urine screening for microalbuminuria. ODRC completed this screening in 61.3% of diabetic patients, while the top 10% of health plans performed better at 87.2% (see Figure 3).

The risk for coronary artery disease, stroke, and peripheral arterial disease is two to four times the normal rate for diabetics (CDC, 2007). Screening for levels of LDL cholesterol should be completed annually in diabetics to assess the risk for arterial disease. ODRC screened for this in 82.2% of eligible patients, while the top 10% of Central Ohio health plans completed this in 86% of patients (see Figure 3).

Category 2: Data for which no regional comparisons are available. Screening for peripheral neuropathy identifies patients who are at risk for diabetic foot ulcers that can lead to amputation. This screening is completed by performing a thorough foot examination by either an advanced-level provider or podiatrist, and must include assessment for neurovascular changes. ODRC completed this screening in 63.4% of diabetic patients, although these data are not collected or reported within the National Committee for Quality Assurance’s HEDIS system.

Smoking and tobacco cessation counseling by a primary care provider can help reduce the number of patients who use tobacco products, which in turn can potentially decrease the risk for pulmonary disease, cardiovascular disease, and cancer. ODRC completed this counseling for 88.6% of diabetic patients (see Figure 4).

Aspirin prophylactic therapy for diabetic patients 30 years and older, who do not have contraindications is recommended by the American Diabetes Association and by the National Committee for Quality Assurance via HEDIS, even though neither organization currently provides or reports data for this measure. ODRC provided this therapy for 46.2% of its diabetic patients (see Figure 4).

Adequate control of hypertension can help reduce the diabetic’s risk for cardiovascular disease (American Diabetes Association, 2008), and control of blood pressure in diabetics is more aggressive than nondiabetic patients with systolic blood pressure goals at or below 130mmHg and diastolic blood pressure goals at or below 80mmHg. ODRC demonstrated compliance with this recommendation in 63.9% of diabetic patients.

According to published recommendations (American Diabetes Association, 2008), reduction of morbidity and mortality can be achieved by providing immunization against pneumococcal disease and influenza in diabetic patients. The provision of pneumococcal and influenza
vaccine was accomplished in 66.6% and 79.3% of the ODRC eligible patients, respectively (see Figure 4).

Discussion

The baseline data collection provided ODRC with the information to determine where focus for improvement in diabetic care was needed. The researchers decided on an approach that included more prospective measures to improve care instead of “chasing our tails” with retrospective reviews. Strategies to force compliance with these quality indicators were developed within the chronic disease management application of ODRC’s computerized lab and appointment reconciliation systems.

Medical ancillary staff must collect and input the quality reminders into the Chronic Care Clinic computer application (see Appendix A for online form) either during or after each clinical visit, before scheduling the next appointment, thus forcing the advanced-level provider to order or complete the quality indicators. The system then provides prompts to nursing staff when these quality reminders are outside the recommended interval with color-coding for identification and communication to the advanced-level provider.

Although the focus for improvement is with prospective measures, ODRC continues to use retrospective chart reviews to improve quality. Retrospective reviews are completed by nursing staff using the Chronic Care Clinic quality review (see Appendix B for sample of review form). Nursing staff use these quality reminder checklists to review the file to document when or if the applicable indicator was completed and any results associated with these indicators. This is provided to the advanced-level provider to address during the patient’s next clinic visit.

In addition, quality data, both baseline and interval, are provided to administrative and medical staff to review on statewide, local, and patient specific levels. Tables 1 and 2 provide examples of this monthly data, which are shared with the advanced-level provider staff, so they may identify opportunities for improvement in patient care at their respective institutions.

As summarized in Table 3, the researchers’ projections and expectations for improvement were exceeded by the results. Now having data available for all 1,891 patients currently enrolled in the system, the self-imposed goals were surpassed in 2 of the 11 measures, the loftiest of our comparators were exceeded in 3 of 5 measures, and improved from the baseline performance in 9 of the 11 parameters. The auto-comparison numbers do show a deterioration in tobacco cessation counseling, likely fueled by the fact that the providers may no longer deem it necessary since all of Ohio prisons are now smoke-free.

Baseline data also identified podiatry and optometry exams as areas needing improvement. ODRC has developed standardized diabetic optometry and podiatry consultation forms, which improve the information shared with the consultant and standardize the screening process. These forms will decrease the workload of the advanced-level provider since they are preprinted, while theoretically improving the referral rate and documentation by both the referrer and consultant.

An additional opportunity for improvement is the use of the data collection tool (Quality Reminder Worksheet) by ancillary staff (see Appendix C for complete worksheet). This data collection worksheet is completed concurrently during the advanced-level provider encounter. Should the clinician omit any required data, the ancillary staff can remind the clinician that these data are required to reconcile the encounter. Obviously, the handwritten forms will be progressively and rapidly phased out as computer data entry becomes more real-time.

Diabetic care for incarcerated populations should be similar to the care free world patients receive. The National Committee for Quality Assurance’s HEDIS data set provides correctional health care professionals with standardized benchmarks to measure the quality of the care they provide. ODRC is using these measures to improve the quality of care for its diabetic patients. Although ODRC exceeds some of the HEDIS measures, there are opportunities for improvement. More often than not poorly controlled diabetes leads to costly morbidities such as laser photocoagulation for retinopathy, amputation of the lower extremities with resultant need for ambulatory aids, and possibly ongoing renal dialysis. While there are some logistical barriers involved in designing and implementing a system such as ODRC’s, which
Figure 1. HgbA1C Testing Completion Rate Percentage

<table>
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<tr>
<th>Health Plan</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>ODRC</td>
<td>95.2%</td>
</tr>
<tr>
<td>Top 10% of plans in region</td>
<td>92.9%</td>
</tr>
<tr>
<td>Top 25% of plans in region</td>
<td>92.2%</td>
</tr>
<tr>
<td>Top 50% of plans in region</td>
<td>89.2%</td>
</tr>
<tr>
<td>Medical Mutual of Ohio</td>
<td>91%</td>
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Figure 2. Percentage in Poor Control (HgbA1C > 9.0)

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<tr>
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<th>Percentage</th>
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</thead>
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<tr>
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</tr>
<tr>
<td>10% of Top plans in region</td>
<td>18.9%</td>
</tr>
<tr>
<td>Top 25% of plans in region</td>
<td>18.9%</td>
</tr>
<tr>
<td>Top 50% of plans in region</td>
<td>27.25%</td>
</tr>
<tr>
<td>Medical Mutual of Ohio</td>
<td>36.7%</td>
</tr>
</tbody>
</table>
Figure 3. Percentage of Patients Completing LDL Screening, Microalbuminuria Screening, and Diabetic Eye Exam

Figure 4. Non-HEDIS Reported Measures
Table 1. Average HgA1Cs Preintervention: Single Point in Time Listed by Individual Institution

<table>
<thead>
<tr>
<th>Institution</th>
<th>CMO</th>
<th>Year</th>
<th>Test</th>
<th>Patients</th>
<th>Tests Run</th>
<th>Unit</th>
<th>Average</th>
<th>StdDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMC</td>
<td>AKUSOBA, M</td>
<td>2008</td>
<td>Diabet</td>
<td>14</td>
<td>29%</td>
<td>29%</td>
<td>6.6</td>
<td>1.38</td>
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<tr>
<td>FPRC</td>
<td>CRISAN</td>
<td>2008</td>
<td>Diabet</td>
<td>16</td>
<td>25%</td>
<td>25%</td>
<td>6.6</td>
<td>1.42</td>
</tr>
<tr>
<td>OCF</td>
<td>AMIN</td>
<td>2008</td>
<td>Diabet</td>
<td>25</td>
<td>49%</td>
<td>49%</td>
<td>7.2</td>
<td>1.48</td>
</tr>
<tr>
<td>HCF</td>
<td>ASCHE</td>
<td>2008</td>
<td>Diabet</td>
<td>98</td>
<td>294%</td>
<td>294%</td>
<td>7.2</td>
<td>1.16</td>
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<tr>
<td>RCI</td>
<td>COULTER</td>
<td>2008</td>
<td>Diabet</td>
<td>73</td>
<td>242%</td>
<td>242%</td>
<td>7.3</td>
<td>1.58</td>
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<td>PCI</td>
<td>EZENEKE</td>
<td>2008</td>
<td>Diabet</td>
<td>147</td>
<td>396%</td>
<td>396%</td>
<td>7.3</td>
<td>1.64</td>
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<td>DGI</td>
<td>DULAN</td>
<td>2008</td>
<td>Diabet</td>
<td>9</td>
<td>32%</td>
<td>32%</td>
<td>7.3</td>
<td>1.38</td>
</tr>
<tr>
<td>GCI</td>
<td>JUAN</td>
<td>2008</td>
<td>Diabet</td>
<td>77</td>
<td>128%</td>
<td>128%</td>
<td>7.3</td>
<td>1.59</td>
</tr>
<tr>
<td>ORW</td>
<td>AKUSOBA, A</td>
<td>2008</td>
<td>Diabet</td>
<td>99</td>
<td>219%</td>
<td>219%</td>
<td>7.5</td>
<td>1.98</td>
</tr>
<tr>
<td>BECI</td>
<td>GUJURAL</td>
<td>2008</td>
<td>Diabet</td>
<td>61</td>
<td>158%</td>
<td>158%</td>
<td>7.5</td>
<td>1.57</td>
</tr>
<tr>
<td>CCI</td>
<td>COBB</td>
<td>2008</td>
<td>Diabet</td>
<td>129</td>
<td>244%</td>
<td>244%</td>
<td>7.5</td>
<td>1.61</td>
</tr>
<tr>
<td>NCCI</td>
<td>JAMA</td>
<td>2008</td>
<td>Diabet</td>
<td>94</td>
<td>186%</td>
<td>186%</td>
<td>7.5</td>
<td>1.63</td>
</tr>
<tr>
<td>MCI</td>
<td>RINGLE</td>
<td>2008</td>
<td>Diabet</td>
<td>150</td>
<td>327%</td>
<td>327%</td>
<td>7.6</td>
<td>1.86</td>
</tr>
<tr>
<td>OSP</td>
<td>ESCOBAR</td>
<td>2008</td>
<td>Diabet</td>
<td>32</td>
<td>85%</td>
<td>85%</td>
<td>7.8</td>
<td>1.67</td>
</tr>
<tr>
<td>RICI</td>
<td>WILLIAMS</td>
<td>2008</td>
<td>Diabet</td>
<td>105</td>
<td>298%</td>
<td>298%</td>
<td>7.8</td>
<td>1.72</td>
</tr>
<tr>
<td>SCI</td>
<td>ESTES</td>
<td>2008</td>
<td>Diabet</td>
<td>21</td>
<td>37%</td>
<td>37%</td>
<td>7.8</td>
<td>1.56</td>
</tr>
<tr>
<td>WCI</td>
<td>WOODS</td>
<td>2008</td>
<td>Diabet</td>
<td>52</td>
<td>137%</td>
<td>137%</td>
<td>7.8</td>
<td>1.6</td>
</tr>
<tr>
<td>LEGI</td>
<td>McWEENEY</td>
<td>2008</td>
<td>Diabet</td>
<td>97</td>
<td>253%</td>
<td>253%</td>
<td>7.9</td>
<td>1.87</td>
</tr>
<tr>
<td>SOCF</td>
<td>McWEENEY</td>
<td>2008</td>
<td>Diabet</td>
<td>47</td>
<td>106%</td>
<td>106%</td>
<td>8.0</td>
<td>1.86</td>
</tr>
<tr>
<td>MACI</td>
<td>IKE</td>
<td>2008</td>
<td>Diabet</td>
<td>89</td>
<td>157%</td>
<td>157%</td>
<td>8.0</td>
<td>1.92</td>
</tr>
<tr>
<td>LOCI</td>
<td>MORFORD</td>
<td>2008</td>
<td>Diabet</td>
<td>108</td>
<td>229%</td>
<td>229%</td>
<td>8.1</td>
<td>1.94</td>
</tr>
<tr>
<td>MANC</td>
<td>AIRALDI</td>
<td>2008</td>
<td>Diabet</td>
<td>96</td>
<td>233%</td>
<td>233%</td>
<td>8.2</td>
<td>1.9</td>
</tr>
<tr>
<td>CRC</td>
<td>DAVIS</td>
<td>2008</td>
<td>Diabet</td>
<td>215</td>
<td>231%</td>
<td>231%</td>
<td>8.3</td>
<td>2.16</td>
</tr>
<tr>
<td>LORC</td>
<td>OJUKWU</td>
<td>2008</td>
<td>Diabet</td>
<td>187</td>
<td>211%</td>
<td>211%</td>
<td>8.4</td>
<td>2.16</td>
</tr>
<tr>
<td>MEPR</td>
<td>DULAN</td>
<td>2008</td>
<td>Diabet</td>
<td>1</td>
<td>4%</td>
<td>4%</td>
<td>9.3</td>
<td>0.37</td>
</tr>
</tbody>
</table>

Note. CMO = chief medical officer

Table 2. Average LDL Levels Preintervention: Single Point in Time Listed by Individual Institution

<table>
<thead>
<tr>
<th>Institution</th>
<th>CMO</th>
<th>Year</th>
<th>Test</th>
<th>Patients</th>
<th>Tests Run</th>
<th>Unit</th>
<th>Average</th>
<th>StdDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORW</td>
<td>AKUSOBA, A</td>
<td>2008</td>
<td>Diabetic</td>
<td>61</td>
<td>79 mg/dL</td>
<td>79 mg/dL</td>
<td>124</td>
<td>40.31</td>
</tr>
<tr>
<td>FPRC</td>
<td>CRISAN</td>
<td>2008</td>
<td>Diabetic</td>
<td>12</td>
<td>18 mg/dL</td>
<td>18 mg/dL</td>
<td>115</td>
<td>41.97</td>
</tr>
<tr>
<td>LORC</td>
<td>OJUKWU</td>
<td>2008</td>
<td>Diabetic</td>
<td>196</td>
<td>208 mg/dL</td>
<td>208 mg/dL</td>
<td>113</td>
<td>39.28</td>
</tr>
<tr>
<td>CRC</td>
<td>DAVIS</td>
<td>2008</td>
<td>Diabetic</td>
<td>171</td>
<td>184 mg/dL</td>
<td>184 mg/dL</td>
<td>112</td>
<td>43.27</td>
</tr>
<tr>
<td>MANC</td>
<td>AIRALDI</td>
<td>2008</td>
<td>Diabetic</td>
<td>85</td>
<td>143 mg/dL</td>
<td>143 mg/dL</td>
<td>111</td>
<td>37.65</td>
</tr>
<tr>
<td>BECI</td>
<td>GUJURAL</td>
<td>2008</td>
<td>Diabetic</td>
<td>46</td>
<td>75 mg/dL</td>
<td>75 mg/dL</td>
<td>111</td>
<td>35.64</td>
</tr>
<tr>
<td>MACI</td>
<td>IKE</td>
<td>2008</td>
<td>Diabetic</td>
<td>54</td>
<td>70 mg/dL</td>
<td>70 mg/dL</td>
<td>109</td>
<td>41.14</td>
</tr>
<tr>
<td>WCI</td>
<td>McWEENEY</td>
<td>2008</td>
<td>Diabetic</td>
<td>51</td>
<td>131 mg/dL</td>
<td>131 mg/dL</td>
<td>107</td>
<td>33.13</td>
</tr>
<tr>
<td>CCI</td>
<td>COBB</td>
<td>2008</td>
<td>Diabetic</td>
<td>110</td>
<td>182 mg/dL</td>
<td>182 mg/dL</td>
<td>105</td>
<td>37.17</td>
</tr>
<tr>
<td>RCI</td>
<td>COULTER</td>
<td>2008</td>
<td>Diabetic</td>
<td>44</td>
<td>118 mg/dL</td>
<td>118 mg/dL</td>
<td>104</td>
<td>35.71</td>
</tr>
<tr>
<td>SCI</td>
<td>ESTES</td>
<td>2008</td>
<td>Diabetic</td>
<td>19</td>
<td>26 mg/dL</td>
<td>26 mg/dL</td>
<td>104</td>
<td>40.21</td>
</tr>
<tr>
<td>OSP</td>
<td>ESCOBAR</td>
<td>2008</td>
<td>Diabetic</td>
<td>28</td>
<td>57 mg/dL</td>
<td>57 mg/dL</td>
<td>104</td>
<td>38.73</td>
</tr>
<tr>
<td>RICI</td>
<td>WILLIAMS</td>
<td>2008</td>
<td>Diabetic</td>
<td>105</td>
<td>314 mg/dL</td>
<td>314 mg/dL</td>
<td>103</td>
<td>35.04</td>
</tr>
<tr>
<td>MCI</td>
<td>RINGLE</td>
<td>2008</td>
<td>Diabetic</td>
<td>146</td>
<td>318 mg/dL</td>
<td>318 mg/dL</td>
<td>102</td>
<td>38.69</td>
</tr>
<tr>
<td>SOCF</td>
<td>McWEENEY</td>
<td>2008</td>
<td>Diabetic</td>
<td>46</td>
<td>77 mg/dL</td>
<td>77 mg/dL</td>
<td>101</td>
<td>36.06</td>
</tr>
<tr>
<td>GCI</td>
<td>JUAN</td>
<td>2008</td>
<td>Diabetic</td>
<td>70</td>
<td>96 mg/dL</td>
<td>96 mg/dL</td>
<td>100</td>
<td>32.25</td>
</tr>
<tr>
<td>DGI</td>
<td>DULAN</td>
<td>2008</td>
<td>Diabetic</td>
<td>7</td>
<td>17 mg/dL</td>
<td>17 mg/dL</td>
<td>100</td>
<td>16.09</td>
</tr>
<tr>
<td>PCI</td>
<td>EZENEKE</td>
<td>2008</td>
<td>Diabetic</td>
<td>133</td>
<td>286 mg/dL</td>
<td>286 mg/dL</td>
<td>99</td>
<td>32.75</td>
</tr>
<tr>
<td>OCF</td>
<td>AMIN</td>
<td>2008</td>
<td>Diabetic</td>
<td>18</td>
<td>27 mg/dL</td>
<td>27 mg/dL</td>
<td>98</td>
<td>25.08</td>
</tr>
<tr>
<td>NCCI</td>
<td>JAMA</td>
<td>2008</td>
<td>Diabetic</td>
<td>81</td>
<td>140 mg/dL</td>
<td>140 mg/dL</td>
<td>96</td>
<td>37.27</td>
</tr>
<tr>
<td>LOCI</td>
<td>MORFORD</td>
<td>2008</td>
<td>Diabetic</td>
<td>101</td>
<td>182 mg/dL</td>
<td>182 mg/dL</td>
<td>96</td>
<td>32.1</td>
</tr>
<tr>
<td>LECI</td>
<td>McWEENEY</td>
<td>2008</td>
<td>Diabetic</td>
<td>92</td>
<td>219 mg/dL</td>
<td>219 mg/dL</td>
<td>96</td>
<td>38.54</td>
</tr>
<tr>
<td>MEPR</td>
<td>DULAN</td>
<td>2008</td>
<td>Diabetic</td>
<td>2</td>
<td>2 mg/dL</td>
<td>2 mg/dL</td>
<td>95</td>
<td>12.02</td>
</tr>
<tr>
<td>HCF</td>
<td>ASCHE</td>
<td>2008</td>
<td>Diabetic</td>
<td>84</td>
<td>213 mg/dL</td>
<td>213 mg/dL</td>
<td>88</td>
<td>31.98</td>
</tr>
<tr>
<td>CMC</td>
<td>AKUSOBA, M</td>
<td>2008</td>
<td>Diabetic</td>
<td>3</td>
<td>6 mg/dL</td>
<td>6 mg/dL</td>
<td>76</td>
<td>19.13</td>
</tr>
</tbody>
</table>

Note. CMO = chief medical officer
required significant upfront time, energy, and some capital expenditure, the department expects that its investment will be rewarded by the potential reduction in longer-term and more costly diabetic complications. ODRC staff believe that adhering to identified quality parameters for diabetes is both patient-centered and ultimately more cost-effective for any system — making it a more fiscally responsible long-term strategy to which they remain committed.

REFERENCES


Table 3. ODRC — HEDIS Diabetic Measures Comparison, February 2008*

<table>
<thead>
<tr>
<th></th>
<th>Patients who received hemoglobin A1c (HbA1c) testing.</th>
<th>Patients whose HbA1c control was poor**</th>
<th>Eye exam testing</th>
<th>Comprehensive foot exam</th>
<th>Lipid level (LDLC) testing.</th>
<th>Screening for kidney disease (nephropathy) testing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Mutual of Ohio</td>
<td>91%</td>
<td>36.7%</td>
<td>71.7%</td>
<td>Not reported</td>
<td>88.5%</td>
<td>84.6%</td>
</tr>
<tr>
<td>Top 10% of plans in region</td>
<td>92.9%</td>
<td>18.9%</td>
<td>64.6%</td>
<td>Not reported</td>
<td>86%</td>
<td>87.2%</td>
</tr>
<tr>
<td>Top 25% of plans in region</td>
<td>92.2%</td>
<td>18.9%</td>
<td>59.2%</td>
<td>Not reported</td>
<td>83.9%</td>
<td>86.3%</td>
</tr>
<tr>
<td>Top 50% of plans in region</td>
<td>89.2%</td>
<td>27.25%</td>
<td>50.6%</td>
<td>Not reported</td>
<td>88%</td>
<td>81.8%</td>
</tr>
<tr>
<td>DRC 2008 overall</td>
<td>95.2%</td>
<td>16.9%</td>
<td>56%</td>
<td>63.4%</td>
<td>82.2%</td>
<td>61.3%</td>
</tr>
<tr>
<td>DRC 2009 results</td>
<td>95.50%</td>
<td>12.70%</td>
<td>72.40%</td>
<td>73.70%</td>
<td>81.30%</td>
<td>72.50%</td>
</tr>
<tr>
<td>DRC goal</td>
<td>100.00%</td>
<td>&lt;10%</td>
<td>75%</td>
<td>75%</td>
<td>90%</td>
<td>75%</td>
</tr>
</tbody>
</table>

* The HEDIS measure uses a single sample of diabetic members to estimate the percentage of diabetic patients who received a specified treatment.

**A lower rate for poor HbA1c indicates better performance.
Appendix B. Chronic Care Clinic Quality Review Form

<table>
<thead>
<tr>
<th>Enrollments</th>
<th>Cardiac</th>
<th>Diabetes</th>
<th>Lipids</th>
<th>TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV</td>
<td>Liver</td>
<td>Gen Med</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>Pulmonary</td>
<td>Seizure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cancer</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- _______ Nursing flow sheet not completed / signature needed.
- _______ CCC disease _______ not addressed at last CCC visit.
- _______ No meds written on flow sheet or pharmacy profile not attached.
- _______ Addressed as CCC, but patient is not in this CCC.
- _______ Complaints / problems not addressed for appropriate clinic or history taken not consistent with clinic enrollment.
- _______ No lab results written on flow sheet or inappropriate labs written not consistent with enrolled clinic.
- _______ Initial labs not ordered when admitted to CCC.
- _______ Level of control does not match documentation.
- _______ Level of control and next review time do not match (Please write order with change).
- _______ Meds not ordered at CCC visit
- _______ May consider for 6 month review if next 2 levels of control in a row are “good” control.
- _______ Aspirin therapy not ordered / considered for diabetic, non allergic patients.
- _______ Patient needs the following immunizations ordered / offered _______________________
- _______ Annual screening by Optometry / Podiatry / Dental is overdue

Other ____________________________________________________________

Reviewer signature ___________________________ Date ___________
## Appendix C. Chronic Care Clinic Worksheet

### Diabetic Quality Reminders

**Chronic Care Clinic Worksheet**

<table>
<thead>
<tr>
<th>Clinic Date: ____________</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
<th>Inmate Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Last HgbA1C result and date completed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Last dilated retinal exam date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Last foot exam by podiatry for diabetic neuropathy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. What is the blood pressure; if &gt; 120/80 did intervention occur?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Was the patient tested for urine microalbumin &amp; date tested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Was the LDL tested in the last year, 1st result</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Tobacco cessation counseling date completed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Aspirin prophylaxis, if age &gt; 30 and no contraindications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Last influenza vaccine given/ offered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Last Pneumococcal vaccine given/ offered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Date entered into Chronic Care Clinic Quality Reminders Application: _________________ Initials __________
Flu Vaccination Among General Population Inmates in a Large Urban Jail System — Los Angeles, 2007-2008

Outbreaks of influenza within correctional settings have been described; however, there has been no report of an influenza vaccination program in the jail setting. The researchers describe the first such reported vaccination campaign in a county jail system in the United States. Using free vaccine and pre-existing medical services infrastructure within the system, the Los Angeles Sheriff’s Department’s (LASD) medical services staff vaccinated underserved individuals, particularly those at risk for severe complications from influenza. The Infection Control Unit (ICU) collected demographic information and estimated the vaccination rate for the administered vaccine. A total of 5,076 inmates were vaccinated in the Los Angeles County jail system from December 2007 through March 2008, accounting for approximately 4% of all flu vaccines administered by the Los Angeles County Department of Public Health during the 2007-2008 flu season.

Introduction

Influenza is an orthomyxovirus best characterized by its epidemic behavior and its ability to swiftly and effectively cause pneumonia (Treanor, Mandell, & Dolin, 2005). Outbreaks generally occur during the coldest part of the year, and vary somewhat with geography (Centers for Disease Control and Prevention, 2008; County of Los Angeles Public Health, 2008). In the United States, approximately 36,000 annual deaths are attributed to influenza (Centers for Disease Control and Prevention, 2008), and in 2005, pneumonia and influenza were reported as the eighth leading cause of death overall for Americans (Kung, Hoyert, Xu, & Murphy, 2008).

In correctional environments, the threat of communicable disease, including influenza, may be especially severe because infection control measures are often limited or inefficient (Bick, 2007). Unique factors that facilitate...
transmission of infectious diseases in jails and prisons include crowding and suboptimal personal hygiene, inadequate sanitation and environmental cleaning, and high mobility and turnover of inmates (Bick, 2007). Jails in particular, defined as local institutions accommodating inmates with short sentences and individuals awaiting trial (Perkins, Stephan, Beck, & BJS statisticians, 1995), house a highly transient population. With approximately 13,000 to 17,000 bookings per month and an average daily inmate population of 20,000 inmates (range: 19,500 to 20,500), the Los Angeles Sheriff’s Department (LASD) operates the largest jail system in the United States. With such high turnover, jail health administrators face numerous challenges to prevent the spread of communicable diseases using standard precautions alone. The high mobility of inmates between and within facilities in the Los Angeles system, compounded by crowding, further precludes strict adherence to standard precautions and creates an ideal environment for transmission of communicable pathogens (Bick, 2007). This mobility also limits continuity of care and complicates disease surveillance because jail patients have no consistent medical home.

In addition, incarcerated individuals have a higher incidence of pre-existing medical and mental health conditions compared with the general population, including HIV, hepatitis (A, B, and C), tuberculosis, and methicillin-resistant Staphylococcus aureus (MRSA) (Bick, 2007). MRSA in particular is known to cause severe necrotizing bacterial pneumonia following infection with the influenza virus. Recent evidence indicates that many of the 40 million deaths that occurred worldwide during the 1918 influenza pandemic were attributable to secondary bacterial pneumonia, and men ages 25 to 40 (an age range that largely characterizes the inmate population) were disproportionally affected (Awofeso, 2004; Brundage & Shanks, 2008; Morens & Fauci, 2007).

Given the high rate of transmission in jails, compounded by the poor health inherent to the incarcerated population, vaccination is the prevention strategy against influenza for jails and prisons (Awofeso et al., 2001; Bick, 2007), particularly because of the link between necrotizing pneumonia due to MRSA following infection with the influenza virus (Chickering & Park, 1919; David, Mennella, Mansour, Boyle-Vavra, & Daum, 2008; Etienne, 2005; Moran & Talan, 2008; Pan et al, 2003). For these reasons, the Advisory Committee on Immunization Practices recognizes that nonpharmacologic interventions, such as hand washing and respiratory hygiene, and community-level mitigation efforts, such as avoiding mass gatherings, are not as effective for control of influenza as mass vaccination efforts (Centers for Disease Control and Prevention, 2008).

The first reported influenza vaccination program among general population inmates is in a U.S. jail system. Between December 2007 and March 2008, the LASD’s Infection Control and Epidemiology Unit (ICU) initiated a pilot vaccination campaign utilizing the services of preexisting, jail-based medical staff to administer free vaccines obtained from the Los Angeles County Immunization Program. The foremost purpose of the campaign was to maximize influenza control and prevention within the jail facilities and in the Los Angeles community. In addition, the researchers aimed to establish an infrastructure within the jail system for future vaccination campaigns. In an effort to enable other jails to develop their own influenza vaccination campaigns, the demographics of LASD’s inmate-patient population, the implementation of the ICU’s influenza program, and unique barriers to influenza prevention and control within correctional settings are described.

**Method**

**Clinical services and facilities.** Between December 5, 2007, and March 25, 2008, LASD offered flu vaccines to all individuals incarcerated in the county jail system, which is comprised of nine facilities at three sites across Los Angeles County. LASD’s medical staff consists of more than 500 medical staff nurses, who provide clinical services and routine “pill call” (the procedure by which nearly one-third of all inmates receive daily medication) for inmates. The system also employs five public health nurses and 45 physicians. And, in downtown Los Angeles, there is also a 196-bed state-licensed Clinical Treatment Center and two medical services wards that house inmates with chronic medical conditions in the Men’s Central Jail. Each facility has its own nursing director, who oversees provision of clinical care in his or her facility.
All male inmates (approximately 400 to 600 new bookings every 24 hours) are asked 16 medical and mental health screening questions when processed and booked at the Inmate Reception Center, which is located in downtown Los Angeles, adjacent to the Twin Towers Correctional Facilities and the Men’s Central Jail. Tower I houses primarily mentally ill inmates (n = 2,500); Tower II houses violent offenders (n = 2,500); Men’s Central Jail houses a variety of different detainees (n = 4,000 to 5,000). Approximately 30 miles north of downtown Los Angeles is the Pitchess Detention Center; many of these inmates (n = 4,000 to 5,000) have already been sentenced to state prison. This detention center consists of five facilities distributed over a large ranch-like area. The Century Regional Detention Facility houses women (n = 2,000 to 2,500) approximately 15 miles south of downtown Los Angeles. This facility operates its own independent reception center and booking process, which also includes the 16 medical and mental health screening questions.

The vaccine. The 2007-2008 vaccine contained an A/Solomon Islands/3/2006 (H1N1)-like virus, an A/Wisconsin/67/2005 (H3N2)-like virus, and a B/Malaysia/2506/2004-like virus, which were strains recommended both by the Food and Drug Administration and the World Health Organization (U.S. Food and Drug Administration, 2007). Fluarix (Glaxo Smith Kline), Fluvirin (Novartis), and Fluzone (Sanofi) were administered using a 23-gauge needle. All three vaccines are approved to prevent infection with influenza A and B in adults older than 18.

The Los Angeles County Immunization Program provided the vaccine to the LASD free of charge. The ICU, which functions as a small-scale public health department for the jail system, received the vaccine weekly. Cold chain (an uninterrupted series of storage and distribution activities) was preserved between 35 degrees and 45 degrees in accordance with World Health Organization standards (Matthias, Robertson, Garrison, Newland, & Nelson, 2007), and the vaccine was stored in a refrigerator supplied by a power source connected to an emergency power generator. The ICU maintained daily temperature logs and reported them to the Los Angeles County Immunization Program monthly.

Table 1. Demographics of Inmates Receiving Flu Vaccine, 2007-2008 Flu Season

<table>
<thead>
<tr>
<th>Age</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-49</td>
<td>3,837</td>
<td>75.6</td>
</tr>
<tr>
<td>50-64</td>
<td>995</td>
<td>19.6</td>
</tr>
<tr>
<td>65-84</td>
<td>75</td>
<td>1.5</td>
</tr>
<tr>
<td>85 and older</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Unknown</td>
<td>166</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Gender
- Male: 4,780 (94.2%)
- Female: 294 (5.8%)
- Unknown: 2

Race
- Hispanic: 2,479 (48.8%)
- Black: 1,309 (25.8%)
- White: 727 (14.3%)
- Asian: 55 (1.1%)
- Other: 227 (4.5%)
- Unknown: 279 (5.5%)
Vaccine campaign. Vaccine was available to all inmates upon request from general medical services staff. Informed consent for vaccination was obtained from all inmates prior to vaccination, and the Influenza Vaccine Information Sheet was distributed prior to or at the time of vaccination. Both consent forms and an information sheet were provided the night before vaccination in the Pitchess Detention Center; the Influenza Vaccine Information Sheet was given on the day of vaccination in all other housing locations. Fact sheets were distributed routinely in English and Spanish, and in other languages upon request.

Although the vaccine was available to all inmates, mass vaccination efforts focused on certain high-risk inmates due to limited nursing staff availability. These inmates were defined as high-risk for the purposes of the program because they had pre-existing medical conditions that increased the likelihood of severe infection with influenza (Treanor et al., 2005) or because they made frequent contact with other inmates and staff increasing the risk of transmission of influenza throughout the jail system. For example, in the Century Regional Detention Facility, Tower I, Tower II, and the Men’s Central Jail, these inmates included pregnant women, men in medical wards, and men in three separate MSM (men who have sex with men) dormitories. Inmate workers in all facilities were also vaccinated.

Vaccination was tailored according to security concerns in each facility. Vaccination in Tower II, for example, was more difficult because access to inmates awaiting trial for violent crimes was limited. In the Inmate Reception Center, however, two nurses were specifically devoted to vaccine administration during all three eight-hour shifts. Because all inmates entering the Inmate Reception Center are screened for medical or mental health issues using 16 standardized questions, vaccination was offered at that time. Furthermore, vaccination was added to the existing medical screening protocol for inmates 55 or older (electrocardiogram, laboratory tests).

For inmates already housed, there were two main methods of vaccination, administered by two groups of skilled nurses. First, five public health nurses in the ICU vaccinated inmate workers and MSM and transgendered inmates in the Men’s Central Jail and the Twin Towers Correctional Facilities. Of note, one of the public health nurses or the physician director of the ICU, along with a senior deputy, provided these high-risk inmates with an educational and highly motivational message prior to vaccination. Second, the medical services nurses made a brief announcement without any educational component, offering the vaccine to all other inmates during regularly scheduled pill-call rounds. Many of these nurses were recruited to fill overtime assignments designated for flu vaccine administration, though some nursing staff administered flu shots in addition to their usual responsibilities.

Data collection and analysis. Infection control staff captured age, sex, and ethnicity data using the consent form. Nursing staff collected the consent forms and best effort was made to impute missing or illegible data based on housing

<table>
<thead>
<tr>
<th>Housing Facility</th>
<th>Number vaccinated</th>
<th>Percentage</th>
<th>Days offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inmate Reception Center</td>
<td>2,359</td>
<td>46.5</td>
<td>67</td>
</tr>
<tr>
<td>Pitchess Detention Center</td>
<td>1,708</td>
<td>33.7</td>
<td>9</td>
</tr>
<tr>
<td>Men’s Central Jail</td>
<td>413</td>
<td>8.1</td>
<td>5</td>
</tr>
<tr>
<td>Century Regional Detention Facility</td>
<td>294</td>
<td>5.8</td>
<td>24</td>
</tr>
<tr>
<td>Twin Tower I</td>
<td>166</td>
<td>3.3</td>
<td>5</td>
</tr>
<tr>
<td>Twin Tower II</td>
<td>91</td>
<td>1.8</td>
<td>4</td>
</tr>
<tr>
<td>Clinical Treatment Center</td>
<td>43</td>
<td>0.8</td>
<td>7</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5,076</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Flu Vaccination Among General Population Inmates in a Large Urban Jail System — Los Angeles, 2007-2008

location. Data were analyzed using Microsoft Excel. The researchers were only able to estimate vaccination rates for a number of housing areas (all inmate worker and MSM dorms, as well as a sample of less than 10 general population housing units) due to the limited availability of complete census data. In the few cases where census data were complete, the vaccination rate was calculated as the estimated number of vaccinations divided by the estimated number of inmates housed in that particular unit.

Results

Vaccination campaign. A total of 5,076 inmates were vaccinated in the Los Angeles County Jail from December 2007 through March 2008, which accounts for approximately 4% of all flu vaccines administered by the Los Angeles Department of Public Health during the 2007-2008 flu season (County of Los Angeles Public Health, 2008). The researchers were able to target a small portion of high-risk inmates (that cannot be quantified due to insufficient census data) because they were clustered in specific housing areas, such as the MSM dorms or medical wards, as well as inmates 55 or older using existing medical services protocols, such as those used in the Inmate Reception Center.

Demographics. Of the 5,076 inmates vaccinated, 1,073 inmates (21%) were 50 years of age or older. Most (75.6%) inmates who received the flu vaccine were 18 to 49 years of age, male (94.2%), and Hispanic (48.8%) or black (25.8%; see Table 1). Among those immunized, only black inmates were underrepresented (25.8%) compared with the jail's general population (35%). Percentages of inmates vaccinated within all other racial/ethnic and age groups mirrored the overall composition of the general population of the jail system.

Number of inmates vaccinated by facility. In the Inmate Reception Center, 2,359 inmates (46.5% of inmates vaccinated) received the flu vaccine, where vaccination was offered during intake screening using the 16 medical and mental health screening questions (see Table 2). The second highest number of vaccines was given at the Pitchess Detention Center, which is the only area where sign-up sheets and fact sheets were provided to inmates on the evening prior to vaccination. The vaccination rate in the inmate worker dorms and the MSM dorms ranged from 30% to 60%. The highest vaccination rates correlated with occasions when the physician director and a senior deputy delivered a strong educational and motivational speech prior to offering the vaccine. Finally, in the Clinical Treatment Center, where a physician order was necessary for an inmate to receive vaccination, 43 doses of flu vaccine were given between December 2007 and March 2008, which is less than 10% of the eligible patient population in that dormitory.

Discussion

The researchers describe the first reported influenza vaccination program among general population inmates in a U.S. jail and hope that their experience will serve as a guide to other jails and prisons that do not have vaccination programs. The Los Angeles County Immunization Program provided LASD with free vaccine, and the ICU took advantage of existing medical services infrastructure to administer more than 5,000 vaccines, though medical services nurses did not begin vaccination until January. The researchers vaccinated underserved individuals, particularly nonwhite males between the ages of 18 and 49, who largely characterize the incarcerated population, as well as individuals at higher risk for severe complications from influenza infection, including MSMs, individuals 55 and older, and pregnant women. They were also able to establish interpersonal relationships and a methodology within the jail system to improve the implementation of future vaccination programs. The infrastructure of this program will be enhanced for the current flu season vaccination effort and has already been expanded to other programs to include hepatitis education and vaccination and pandemic flu preparedness.

The researchers identified four components that were critical to the success of the vaccination program. First, free or low-cost vaccines can increase the feasibility of vaccination and buy-in among administrative staff. Both international and domestic studies indicate that influenza vaccinations (including those administered in mass vaccination clinics) are cost-effective for people 50 to 64 years of age, regardless of risk stratification, and availability of a free or low-cost vaccine makes the program even more
attractive (Aballea, et al., 2007; Maciosek et al., 2006; Prosser et al., 2008). Furthermore, the influenza vaccine requires only a single dose, making it an ideal candidate to introduce a vaccination program. Second, vaccination campaigns that use existing infrastructure and jail-based medical staff are most successful because jail health care workers are familiar with the correctional environment and have legitimacy among inmates, with whom they have daily contact. The researchers earned buy-in from senior LASD leadership and administered the vaccine to deputies and inmates in plain sight of each other. This presumably helped to dispel irrational fears expressed by the inmates and created a sense of perceived benefit among deputies, who in turn sought vaccination for themselves. Third, the delivery of strong educational and motivational messages increased the inmates’ sense of self-efficacy as well as vaccination rates. Finally, distribution of consent forms and linguistically and culturally tailored fact sheets the night before vaccination seemed to facilitate vaccine administration, particularly in large dorms. Distribution of these materials during the evening prior to vaccination also increased vaccination, apparently because inmates were more informed about vaccine availability and benefits.

Though there is no report of any other flu vaccination program among general population inmates in the United States, current literature supports illness prevention by means of influenza vaccination as the best method to limit the spread of disease in jails and in the general community (Bick, 2007). As of January 2003, three influenza outbreaks were recorded in Australian prisons, and the strain represented in the summer prison outbreak in the most recent case became the predominant strain in the winter epidemic of that same year, replacing more common strains in the general population (Young et al., 2007). In addition, inner city children with a household contact recently incarcerated in the Cook County Jail were found to have a higher incidence of MRSA infections (David et al., 2008). As evidenced by the linkage between MRSA in the jail and the inner city, compounded by the potential for severe necrotizing pneumonia in otherwise healthy adults, there is a pressing need for preventive care in the jail setting. Immunization of inmates returning to these communities may benefit inmates, but may also help prevent transmission of influenza and severe infection to a largely unvaccinated population (David et al., 2008; Francis et al., 2008).

Inmates are in close contact with people from minority populations during incarceration and upon release, particularly children under the age of 5 and the elderly, who are at high risk for severe disease and death resulting from infection with the influenza virus. Some of these populations have already been identified by a branch of the U.S. Department of Health and Human Services called Healthy People 2010 (http://www.healthypeople.gov) as severely lagging behind vaccination rate goals. Currently, only 24% of black patients and 25% of Hispanic patients between the ages of 18 and 64 are vaccinated annually, and only 32% of people aged 50 or older are vaccinated, though the American Academy of Family Physicians recommends vaccination for all adults in these age groups (Aballea et al., 2007; California Department of Public Health, 2008). Vaccinating inmates may thus help address disparities in vaccination among underserved age and race groups.

There were several limitations to the pilot program. First, the researchers relied heavily on risk-based stratification, which is less cost-effective than age-based stratification, simply because jail infrastructure permitted a risk-based stratification process (Aballea et al., 2007). Yet, with the exception of inmates housed in MSM dorms, inmates on medical wards, inmates older than 55, and pregnant women, many high-risk individuals, such as those with chronic lung disease, remained unidentified in the general jail population. Moreover, health care staff did not make maximum use of social marketing strategies to promote vaccination among inmates. Newer programs, including a hepatitis vaccine program, have made use of video programming and other communication methods, but the researchers were unable to employ such methods during the pilot program. Finally, rate calculation methods based on jail census and surveillance data were limited. Limited vaccination rate estimates were calculated based on the gross number of individuals vaccinated in some housing areas, but influenza-like illness, comorbidities related to influenza, and laboratory diagnoses in the months following vaccination were not recorded.
In closing, successful duplication of this program will make use of free or low-cost vaccine, existing jail infrastructure, and tailored health education for a high-risk audience. Vaccination programs such as these present opportunities for collaboration between local public health departments and jail medical staff to engender a dynamic of prevention in jails and prisons. In the United States today, close to 1 of 33 Americans is incarcerated at some time in his or her life, and the high rate of recidivism and the transient nature of this population proves that correctional health is a community issue (Bick, 2007). For inmates, medical care is an entitlement, but for inner city children, pregnant women, and the elderly who make contact with former inmates, jail-based vaccination campaigns present a tremendous opportunity to eliminate health disparities, which would otherwise remain unaddressed. Jail-based vaccination programs also present an opportunity to train jail staff for pandemic flu emergency preparedness. A network analysis of incarcerated individuals and cases of influenza in the community may illustrate more concrete transmission patterns between jails and the community, though there can be little doubt that jail-based vaccination campaigns present a tremendous opportunity to reduce health disparities characteristic of underserved populations and play an important role in the domestic influenza prevention program.

REFERENCES


Reducing Inmate Prescription Costs Makes Dollars and Sense

Kathleen Harnish-Doucet
Viola Riggin
Dennis Kriesel

The continued rise in health care costs requires states and counties to look for new ways of doing business. One area of particular focus is on incarcerated populations at state correctional facilities, county detention facilities, and city lockups, all of which may not have access to large group discounts and other resources. The Kansas Collaborative Prescription Drug Breakthrough Team, at the behest of former Kansas Gov. Kathleen Sebelius, researched four efficient means by which Kansas state agencies and counties could reduce spending on prescription medications for inmates and juvenile offenders while still maintaining community standards of care. By working together as a cooperative in achieving their goals, the project saved $7 million its first year.

Introduction

As the cost of daily living outstrips wages, the financial burden of providing prescription drugs to inmates has risen throughout the country. A survey by the Federal Bureau of Prisons (2005) showed that the cost of providing medicine to federal prisoners rose about 23% annually between 2000 and 2004. State agencies and counties absorbed this cost at the expense of funding other direct impact service initiatives such as risk reduction and reentry activities. Early in the decade, Sebelius launched the BEST (Budget Efficiency Savings Teams) effort to enable state agencies to make the best of strained resources without sacrificing the effectiveness of state and local programs.

In February 2004, with the sponsorship of Sebelius’ Health and Human Services Cabinet, the Prescription Drug Breakthrough Team, spearheaded by TeamTech Inc. was launched to reduce the cost of pharmaceuticals for inmates. The group — eventually known as the Kansas Collaborative’s Prescription Drug Breakthrough Team — worked together so that by November, several cost-savings options had been developed. They included KDOC’s no-cost policy change that required the department’s health care services contractor to extend the state’s discounts to local governments. Providing options was an important part of the solution as options meant counties could select a method that best suited their needs.

Kathleen Harnish-Doucet is chief operating officer for TeamTech Inc. (founders and project managers of The Kansas Collaborative), in Olathe, Kansas. Viola Riggin is a senior contract management consultant with University of Kansas Physicians Inc. and director of health care services for the Kansas Department of Corrections, in Topeka. Dennis Kriesel is senior policy analyst for the Kansas Association of Counties, in Topeka.
For some, working through the local pharmacist was a must. For others, finding the rock-bottom lowest price was key. In Crawford County, officials now spend 38% less on prescription drugs. In Atchison County, officials trimmed that portion of their budget by 33%. In its first year, the initiative found $7 million in annually recurring savings statewide, and its continuing effort has saved Kansas nearly $25 million overall. The methodology of the Kansas Collaborative’s award-winning efforts is discussed below.

First, group members defined the problem by researching how much each participating county paid for various medicines. Costs varied greatly among counties, sometimes more than 600% for the same prescription drug. For example, they surveyed the cost of the top-10 most commonly used medicines in small, medium, and large facilities. They researched various purchasing options and discovered that a 500 mg tablet of Depakote costs $1.47 in one county and in another, $9.20. A 5 mg tablet of Zyprexa costs $5.18 in one county and $11.14 in another. “Work group members were stunned,” said Elizabeth Gillespie, former director of the Shawnee County Department of Corrections. Officials knew the price of Depakote or Zyprexa (used to control seizures, bipolar symptoms, and psychosis) wasn’t breaking the county budget, but with 18% of incarcerated individuals requiring psychotropic drugs, a less expensive purchasing option would save a significant sum over time.

In the course of their research, members’ attention remained with finding the options that could trim costs. “We didn’t leave any stone unturned,” said Debbie Donaldson, human services division director for Sedgwick County. “We looked for multiple solutions.” Four were presented to Kansas’ counties (see Figure 1).

**Minnesota Multistate Contracting Alliance for Pharmacy (MMCAP)**

The state of Minnesota has a voluntary group purchasing organization for government agencies that provide health care to specific populations, such as inmates. Through volume contracting, MMCAP is able to offer reduced pricing on a number of prescriptions and health care products; the average savings through program participation is 45% off retail. Because detention facilities are responsible for providing health care to their incarcerated populations, the facilities are eligible for MMCAP purchasing to stock their in-house pharmacies. MMCAP allows a detention facility to place an order for pharmaceuticals, which are then delivered directly to the facility. County Commissioner Dave Unruh said Sedgwick County saved 65% on its first order with MMCAP. “These are not marginal savings,” he said. Forty-two states currently participate in MMCAP, and more than 3,000 facilities utilize MMCAP pricing.

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**Figure 1. Survey of Options Presented by the Kansas Collaborative**

<table>
<thead>
<tr>
<th>Option</th>
<th>Other State/Local Government Agencies</th>
<th>Inmates</th>
<th>General Population</th>
<th>Detention Staff</th>
<th>Local Pharmacy Use</th>
<th>Estimated Savings Off Retail</th>
<th>Dispensing/Administration Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMCAP</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>Storage &amp; Dispensing</td>
<td>45%</td>
<td>Negotiated w/Pharmacy</td>
<td></td>
</tr>
<tr>
<td>Companies</td>
<td></td>
<td></td>
<td></td>
<td>Emergency Only</td>
<td>45-49%</td>
<td>Reduced &amp; Capped</td>
<td></td>
</tr>
<tr>
<td>KDOC</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>Emergency Only</td>
<td>61%</td>
<td>Reduced &amp; Capped</td>
<td></td>
</tr>
<tr>
<td>CDC</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>N/A</td>
<td>Varies per Vaccine</td>
<td>Set (@ $3.50)</td>
<td></td>
</tr>
<tr>
<td>NACo</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>Full-Service</td>
<td>21%</td>
<td>Set</td>
<td></td>
</tr>
</tbody>
</table>
Privatized, For-Profit Pharmaceutical and Health Care Service Companies

Private, for-profit health care companies provide pharmaceutical services, as well as health care services to state correctional facilities, large city lockups, and medium to large county jail systems within the U.S. through an outsourcing competitive bidding process. Private health care companies are not new but some of the county detention facilities in Kansas were unaware of the service availability or had not considered utilizing this type of service prior to the study. Local and out-of-state options were discussed.

Privatized health care and pharmacy vendors can obtain significantly reduced pricing on prescription drugs through volume purchasing, and pass those savings on to the prisons or jails they serve. Detention facilities will likely find cost savings by contracting with companies that specialize in providing prescription and other drugs for incarcerated offender populations. The cost savings on prescription drugs can vary, but the pricing tends to be around that of the MMCAP rate (45-49%). A detention facility can establish a contract directly with a correctional pharmacy or the facility can contract with a company that provides all health care services for incarcerated populations.

The outsourcing of services to a specialized correctional health care company can save money, in addition to savings on prescription drugs, by negotiating contracts for services with the county’s local physicians, clinics, and hospitals at reduced rates; by carefully screening and managing bill payments; by providing expertise in standards for correctional health care; and by accepting responsibility and any liability for the services provided. These companies will defend lawsuits filed over medical care and are usually required to pay awards or settlements as necessary. In general, they are contractually obligated to assure quality of care that meets constitutional and community standards. In the long run, this could save the county money and reduce administrative frustration. However, like any contract, administrative and clinical oversight through compliance monitoring is important, as is the development of detailed bid specifications.

Kansas Department of Corrections Contract

In the interest of lowering health care costs and improving the quality of care for Kansas prisoners and juvenile offenders, KDOC was intrigued with the purchasing power of the MMCAP program but knew that some facilities were too small or lacked the infrastructure to successfully join a mail order medication group such as MMCAP. Not all county jails can attract health care staff to provide the pharmaceutical support necessary to sustain a program such as MMCAP on-site. The team discovered private health care vendors usually limit their services to jails and detention facilities with a capacity of 250 or more and usually do not provide services to smaller county and city systems. These two exceptions would leave many counties in Kansas paying retail and varied prices for inmate medications.

With that knowledge, KDOC negotiated a requirement that the reduced prescription drug pricing and full pharmaceutical services be extended to any state, county or local government entity. Now counties can purchase prescription drugs at the same price and same level of service as the state, through its official providers, Correct Care Solutions and Diamond Pharmaceuticals.

In addition to standardized drug pricing for all Kansas governmental agencies, all bidders had to agree that their pharmaceutical operations could handle an entire state pharmacy system to include pharmacy inspections, pharmacists, and 24/7 pharmacy technical support. They also had to agree to provide delivery services at the same cost rate, packaging, and service schedule that were outlined in the KDOC contract, regardless of geographic location or the size of the facility. Additional requirements included monitoring compliance with state and federal regulations to bring all participating facilities into compliance with pharmacy regulations and institutional drug room licensure requirements. And finally, ancillary operational services such as medication carts, fax machines and phone lines were included as part of the offered program. The bidders agreed to these terms and when the bids were submitted KDOC found the pricing to be significantly lower for pharmaceuticals due to the expanded business opportunity for the pharmacy vendor.
The successful bidder, Correct Care Solutions, will allow any Kansas government agency to obtain prescription drugs and full prescription services at the KDOC prices directly from its pharmaceutical provider, Diamond Pharmaceuticals. Any agency choosing to participate under the KDOC contract receives pricing and services at the KDOC rate. The administrative fees (which cover everything from shipping to packaging) are on a per-prescription basis and vary by facility size and location as it would compare to a KDOC facility. Large, urban agencies pay less per prescription than small/remote agencies due to the delivery costs. Medications come from one location, Diamond Pharmaceuticals, and arrive blister-packed. Next day delivery is standard for most locations; remote locations may face second-day delivery. An inventory of drugs can be maintained, if desired, however, stocking medications requires registration with the State Board of Pharmacy and a Drug Enforcement Administration certificate.

**NACo Discount Drug Card**

National Association of Counties (NACo) initiated a pilot program with self-selected member counties to test a prescription drug card. This drug card allows local pharmacies to sign up to offer reduced costs to card holders, with an average savings of 21% off retail prices. It is geared toward people who obtain their medicine from a pharmacy, so it works best for inmates being released from jail, parolees, or those under the supervision of community corrections. The cards can be provided in any manner chosen by the counties and are accepted at a number of pharmacies. In addition, participating counties receive the necessary materials to allow other interested pharmacies to sign up. The drug card is designed to function along with any pre-existing program(s) a county may provide or participate in to reduce prescription drug prices.

Though the savings reduction is much smaller than the other plans described, the flexibility of the card makes it viable in combination with almost any other plan(s). The most notable issue of concern is that the individual card holder needs to ensure that he or she has no other insurance option as the card could negate eligibility for someone who is on a federal- or state-subsidized prescription drug assistance program, and such programs generally would offer greater savings than the NACo card. The criteria are the same for all facilities to join the NACo card program. Any county or facility automatically qualifies for the program.

**Conclusion**

Because of this team’s work, 72% of jail beds in Kansas counties are under some formalized saving program for prescription drugs (up from

![Figure 2. Percentage Paid of Estimated Retail Price](image-url)
24% when the team started). In addition, Kansas has seen a significant increase in compliance with state pharmacy regulations. Consistency between county jails and state prison facilities on formulary issues has resulted in further cost savings, and improved communications between the state prison system and the county jails. Of the remaining 28% of jail beds in Kansas not enrolled in one of the four formalized savings programs, 8.5% continue to be served by their local pharmacy but were able to use the information provided by this study to renegotiate lower pricing.

Numerous viable options exist for Kansas detention facilities and other groups and agencies to reduce their prescription drug costs (see Figure 2). Whether one plan is used exclusively, mixed-and-matched, or combined with pre-existing models, the end result can be substantial savings over the current expense. Active examination and tracking can show just how much a facility is saving, and if another model might be best. Contacting other counties that have tried various models can help determine whether a facility should participate in a given plan and the cost savings that can be expected. Ultimately, only proactive pursuit of lower costs will lead to a reduction in the ever-inflating cost of prescription drugs. Other states, such as Kentucky, Florida, and Colorado, have either chosen this method of purchasing prescriptions or are considering this type of program.

ENDNOTES

1 The Kansas Collaborative is a joint effort between the state of Kansas, the Kansas Association of Counties, and the League of Kansas Municipalities, dedicated to fostering collaboration and improving government efficiencies. The collaborative is managed and facilitated by TeamTech Inc., a private consulting group that works with all levels of government to cut through bureaucratic clutter and move ideas into action.


HB 2893: Legislation Translates to 60% Savings on Inmate Hospitalizations

Sandy Horton, sheriff of the Crawford County Jail was faced with an inmate bill of more than $120,000 with no way to pay for it. He took the initiative to solicit assistance from the Kansas Sheriff's Association. He and other KSA members researched ways to reduce hospitalization costs. “After reviewing what was available out there, I knew we needed to replicate the Medicaid bill the state of Colorado had just passed. I set to motion getting that done for Kansas,” Horton said. “We were fortunate to obtain the services of Jeff Bottenberg, Attorney for KSA who drafted the bill for us.” This included working with the Kansas Association of Counties, other sheriffs within the state, state agencies such as KDOC, and The Kansas Collaborative.

“Hospitalization costs for the incarcerated population can sometimes wreck a county’s budget,” said Randall Allen, executive director of the Kansas Association of Counties. Legal responsibility for the health care of such inmates falls to the county level, and with many such persons lacking health insurance, this results in a substantial economic burden.

Simultaneous to that, to help address health care costs for incarcerated persons a team of state and county officials were brought together by The Kansas Collaborative as the Inmate Healthcare Cost Breakthrough Team, facilitated by TeamTech Inc. The team included leaders from many of the state’s pivotal groups, including the Kansas Department of Corrections and the Kansas Department of Social and Rehabilitation Services. Also on board were the Kansas Sheriff’s Association’s lobbyist and the state’s Health and Human Services Cabinet Team. Their initial focus was to address hospitalization costs for adult and juvenile detention facilities.

The group gathered one-to-three months of invoices, totaling more than $268,000, from selected counties to analyze the cost of hospitalizing inmates. Then, with the assistance of state Medicaid staff, the team projected the cost if counties had been charged the lower rate (in most cases, the Medicaid rate). The seven counties in the study would have paid slightly more than $104,000 – a savings of nearly 60%. The team was exploring negotiation strategies and legislative solutions when the sheriff’s association’s efforts became known. As a result of both group’s investigations and research, two viable options were identified: (a) to work with the sheriff’s association on its legislation for reduction of hospital bills by paying only the Medicaid rate, and (b) to look at coordination of shared services for health care between counties. Both have their own particular advantages and can work in tandem with each other. Both offer greater financial savings over what most county detention facilities were paying.

Legislation (House Bill 2893, a joint effort between the Kansas Collaborative and the Kansas Sheriff’s Association) was passed, mandating that county law enforcement groups pay the Medicaid rate. The law also allows for negotiating a different health care contract rate when necessary to ensure facilities can recruit adequate health care providers and independent contractors willing to treat the inmate population.
Linkage to Treatment and Supportive Services Among HIV-Positive Ex-Offenders in Project Bridge

HIV-positive inmates often have histories of substance use, mental illness, and homelessness. Access to supportive services is important for members of this population upon their release from prison to improve continuity of medical care in the community. This paper briefly reviews Project Bridge, a federally funded demonstration project that provided intensive case management for HIV-positive ex-offenders. Ex-offenders received 18 months of intensive case management by teams of a professional social worker and an outreach worker between May 2003 and December 2005. Client contacts were weekly for 12 weeks and, at a minimum, monthly thereafter. Most clients (95%) received medical care throughout their enrollment. Of all clients in Project Bridge, 45.8% secured housing, 71% were linked to mental health care, and 51% were linked to addiction services. Despite high levels of addiction (97%) and mental health disorders (34% on medication), ex-offenders were retained in health care for a year after being released from incarceration.

According to the Bureau of Justice Statistics (BJS), at the end of 2003, the prevalence of confirmed AIDS cases in prisons was three times that of the general population in the United States. In addition, BJS reports show that about 1.9% of federal and state prisoners are known to be infected with HIV. Many of these prisoners are diagnosed while they are incarcerated. HIV-infected prisoners, like HIV-infected people in the community, often have underlying mental health and substance use disorders that can interfere with adherence to HIV treatment regimens. Prisoners infected with HIV who also suffer from substance use and mental health disorders may pose significant challenges to the health care system seeking to implement integrated care. This is particularly the case with ex-offenders, as they are often released to impoverished communities from which they came. The potential this environment offers for
relapse into drug use and lack of access to health care poses a threat to the health benefits they may have gained during incarceration.6–10 Therefore, it is important to establish interventions that facilitate continuity of care and support services following community release. This in turn supports retention in health care for a patient population known to be disconnected from the health care system.5,7,11–15 Without social support services, the population is more likely to use emergency rooms as their principal source of care.16–17 Provision of social services to support retention in health care is both an individual treatment challenge and a public health challenge.

Case management has been proven effective in providing assistance with HIV treatment adherence and supportive ancillary services.17 Receipt of ancillary services, including assistance with housing, addiction treatment, mental health treatment, and complementary services improve access to primary medical care.5,8,14,18–21 Continuity of medical care following prison release is improved by addressing basic survival needs during pre-release discharge planning.5,9,14,22–25

Multidisciplinary collaborations among physicians, social workers, nurses, and community-based case managers are essential in order to integrate care to achieve better treatment outcomes for HIV infection, co-morbid mental health disorders, and substance use for HIV-infected individuals. This is the model for Project Bridge, a Ryan White CARE (Comprehensive AIDS Resources Emergency) Act Special Project of National Significance (SPNS) research and demonstration project aimed at overcoming barriers to continuity of medical care for HIV-positive ex-offenders. Project Bridge, at The Miriam Hospital in Providence, RI, a Brown University teaching hospital, has been offering services to ex-offenders since 1996.12 The program provides intensive case management to HIV-positive offenders as they are released into the community. Participants are followed for 18 months after release from prison. This article describes utilization of ancillary services, and medical care during a one-year period (between May 2003 and December 2005) of participants’ involvement in Project Bridge.

Method

Study population. All sentenced HIV-positive inmates being released from state prison in Rhode Island are eligible for participation in Project Bridge upon release. They are referred to the program through the health services division of the prison. Participants are enrolled 30–90 days prior to their release date.

Description of the Project Bridge intervention. Since October 1996, The Miriam Hospital has been funded by HRSA to develop a model for overcoming barriers to medical continuity of care for ex-offenders. The program, Project Bridge, provides intensive case management for HIV-positive inmates being released from the state prison to the community. The primary goal of the program is to retain HIV-positive ex-offenders in medical care through social stabilization. The theoretical model for the intervention is Eco-behaviorism, which encourages development of relevant help-seeking skills through modeling, rehearsing, and debriefing when the client tries the behaviors on his or her own.26 An additional trait of the model is the use of principles of Motivational Interviewing (MI) for treatment readiness.26 HIV-positive ex-offenders are provided services by a social work team for 18 months after prison release. Project Bridge is based on collaboration between doctors and social workers within the same clinic. Additionally, the program builds on the existence of HIV specialty care within the prison by The Miriam Hospital providers.

Project Bridge participated in the SPNS Outreach Initiative from 2001–2006. Because this initiative had two-stages, refinements to the program began in the second phase in 2003. Refinements made by Project Bridge included expanding enrollment to inmates at the Intake Center (jail) to find newly diagnosed participants. The Miriam Hospital Institutional Review Board (IRB) and the Office of Human Research Protection approved all parts of the Project Bridge protocol.

Data collection and analysis. Demographic data were collected for each participant at baseline. A multi-site instrument collected data on health care status and utilization, perceived service needs, barriers to care (structural, stigma, and beliefs), engagement with provider, mental health care, substance use and sexual risk behaviors. In addition, the SF-12v2 health
Table 1. Project Bridge Sociodemographics at Intake (N=59)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (n)</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean — 42.3 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median — 44 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>40</td>
<td>68</td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>29</td>
</tr>
<tr>
<td>Transgender</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Prefer not to identify</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Sexual orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>47</td>
<td>80</td>
</tr>
<tr>
<td>Homosexual</td>
<td>7</td>
<td>11.5</td>
</tr>
<tr>
<td>Bisexual</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Prefer not to identify</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>22</td>
<td>38</td>
</tr>
<tr>
<td>Black/African American</td>
<td>26</td>
<td>35</td>
</tr>
<tr>
<td>Native American/Alaskan Native</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>More than one race/other</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Latino</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>Housing status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live in own home/apartment</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Unstable housing</td>
<td>51</td>
<td>86</td>
</tr>
<tr>
<td><strong>Relationship status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Divorced/widowed</td>
<td>7</td>
<td>11.5</td>
</tr>
<tr>
<td>Committed relationship</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Separated</td>
<td>5</td>
<td>8.5</td>
</tr>
<tr>
<td>Single, never married</td>
<td>37</td>
<td>63</td>
</tr>
<tr>
<td><strong>Health insurance status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No health insurance</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td>Medicaid</td>
<td>25</td>
<td>42</td>
</tr>
<tr>
<td>Medicare</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Private insurance</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Annual income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under $10,000</td>
<td>59</td>
<td>100</td>
</tr>
<tr>
<td>Over $10,000</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* Mean monthly income is $198.98.
survey, which is calculated on two dimensions, a physical health scale and a mental health scale, was administered to all participants. Follow-up data collection was conducted at 6, 12, and 18 months. This paper examines referrals and perceived service needs. (A referral is defined as contacting a resource provider on behalf of a client.)

All referrals are recorded on daily logs by the staff. They are coded by date, type of referral, service provider, and length of contact. Follow-up data are collected by project staff through direction communication with referral agencies, attendance at appointments, defined as a face-to-face encounter between a client and a referral source, or by chart review for medical services. The daily logs are submitted for entry in the program database. The outcomes of completed referrals (either a client receiving the service or no further action could be taken on the referral) are coded and submitted for database entry as they occur. Reports of referrals that are pending completion are generated monthly and are reviewed with staff during individual supervision. This procedure ensures that referrals are reviewed consistently. All participants followed for at least 12 months were included in the analysis.

**Results**

**Participant demographics.** A total of 59 participants were enrolled during the reporting period (May 2003 through December 2005). Demographic characteristics are summarized in Table 1. More than half of participants (62%) were of a race or ethnicity other than Caucasian and 29% were female. At baseline, most participants (86%) reported living in unstable housing, meaning either that they were on the streets, in shelters, or in abandoned buildings, or they were staying temporarily in someone else’s apartment or house. All participants had annual incomes of less than $10,000, and the mean monthly income was $199. Nearly half (49%) of participants reported having no health insurance. Medicaid or Medicare was the primary source (97%) for those who reported having health insurance.

**Participant contacts.** Table 2 shows the types, frequency, and duration of contacts made by Project Bridge staff related to referrals. The data collection instrument divided time in ranges. Both telephone and face-to-face contacts were in the 30–59 minute range for baseline, 6 months and 12 months (the mean and median were the same). The greatest number of contacts occurred at 6 months. Overall, the average number of face-to-face referral related contacts per client for the 12-month follow-up period was 4.1 and the average number of telephone contacts for the same 12-month follow-up period was 2.4. All contacts reported here were associated with referrals, as described in Table 2.

**Service referrals and receipt of services.** Table 3 describes the most common types of referrals for services made for project participants and also shows how many of these services were received (52%). For all services for which clients were referred, a significant proportion of referrals resulted either in a client being ineligible (20.7% of all referrals) or in the service being no longer available or no longer needed (13.5% of all referrals) (see Table 3). It

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**Table 2. Frequency and Duration of Social Work-Client Contacts* (N=59)**

<table>
<thead>
<tr>
<th>Interview</th>
<th>Type of contact</th>
<th>Total number of contacts</th>
<th>Mean duration of contacts (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake</td>
<td>Face-to-Face</td>
<td>46</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Telephone</td>
<td>28</td>
<td>45</td>
</tr>
<tr>
<td>6 months</td>
<td>Face-to-Face</td>
<td>124</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Telephone</td>
<td>75</td>
<td>45</td>
</tr>
<tr>
<td>12 months</td>
<td>Face-to-Face</td>
<td>74</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Telephone</td>
<td>41</td>
<td>45</td>
</tr>
</tbody>
</table>

*Analyses only performed on contacts where referrals to services were made; does not include all other types of contacts.
is important to note that the most common reason a service was no longer available or no longer needed was the waiting period to receive it after a referral was made.

Waiting lists are particularly long for housing resources. Eight clients completed enrollment in Project Bridge before housing became available and four were reincarcerated while waiting. Although the total number of participants represented in Table 3 is 59, many participants were referred for more than one type of service at baseline, 6 months, or 12 months. Among participants who needed housing services, 43.8%, 44.9%, and 48.4% of referrals resulted in services received at baseline, 6 months, and 12 months, respectively. However, these were primarily Housing Opportunities for People With AIDS (HOPWA) funded (i.e., shelters, nursing homes, assisted living, transitional housing, 90-day sober housing, and HOPWA funded apartments). Of all housing referrals made, 11.5% were not utilized by the participant.

A history of substance use and/or binge drinking was reported by 97% of the participants at baseline. At baseline, 50% of participants reported needing addiction treatment (data not shown). There were 102 referrals made for addiction treatment during the study. Of those, the client received the service half of the time (50%). The client did not complete the referral process 14.7% (15) of the time. For 11.8% (12) of the referrals, the client was no longer interested or had made other arrangements when the service became available.

Poorer health status and mental health disorders were prevalent in the study population. At baseline, 27% (16) of participants reported ever having a psychiatric admission and 34% reported being on psychiatric medication. Seventy-two percent scored below the general U.S. population on the mental health scale. Overall, there were 38 referrals for mental health treatment. In 71% (27) of the cases, the service was received. Of the referrals made for treatment, 18% (7) were not completed by the client. The service was not received for eligibility reasons for 5% (2) and the service was no longer needed or the client had made other arrangements for 5% (2) of participants.

Having received medical care during the preceding six months was self-reported by 92% of participants at baseline. At the six-month fol-

---

**Table 3. Project Bridge Client Service Referrals (N=59)**

<table>
<thead>
<tr>
<th>Service</th>
<th>Total service referrals</th>
<th>Total referrals made</th>
<th>Service received</th>
<th>Client did not complete*</th>
<th>Client did not meet eligibility criteria</th>
<th>Service not available/not needed**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interview</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>Housing</td>
<td>16</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mental Health</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Addiction</td>
<td>12</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>6 months</strong></td>
<td>Housing</td>
<td>49</td>
<td>22</td>
<td>5</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Mental Health</td>
<td>25</td>
<td>18</td>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Addiction</td>
<td>54</td>
<td>33</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td><strong>12 months</strong></td>
<td>Housing</td>
<td>31</td>
<td>15</td>
<td>4</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Mental Health</td>
<td>9</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Addiction</td>
<td>36</td>
<td>14</td>
<td>8</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total during enrollment</strong></td>
<td>236</td>
<td>122</td>
<td>33</td>
<td>49</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

*The client did not keep the referral appointment.
**Client either no longer needed the service once it became available or the service had been discontinued.
low-up, 95% had received medical care since their first interview. At the 12-month follow-up, 96% had received medical care since their most recent interview (data not shown). The source for these data was medical chart abstraction.

Discussion

Project Bridge has developed a comprehensive model of engaging HIV-positive inmates as they are released into the community and has facilitated referral for supportive services, such as housing, mental health, and addiction treatment. The Project Bridge model is effective in retaining ex-offenders in medical care who are unstably housed and have underlying mental illness and substance use disorders. Nearly all (96%) of the participants received care while incarcerated. Considering that incarceration presents a nearly perfect adherence opportunity, this is not remarkable. However, sustaining that level of utilization of medical care (95% 0–6 months, 96% 7–12 months) demonstrates program effectiveness.

We have documented patterns of clients not receiving services that they need. Although these patterns are not unique to ex-offenders who are HIV-positive, they exacerbate problems associated with continuity of medical care for HIV-positive ex-offenders as they are released. This highlights structural barriers to supporting continuity of care upon release from prison, namely that individuals with a criminal background are often unable to access needed supportive services. With regard to housing, ex-offenders face numerous challenges due to their criminal backgrounds in securing places to live. Public housing regulations can exclude ex-offenders from receiving services due to their criminal histories. An additional consideration for this population is that unstable housing may adversely affect follow-up with primary medical care. One recent pilot study concluded that housing stability is a strong predictor of post-release primary care utilization.

With respect to mental health and addiction treatment, 71% and 50%, respectively, of referrals made resulted in services received. As Table 3 demonstrates, clients were rarely found ineligible for mental health treatment. Eligibility for addiction services can depend on determination at screening that the level of care needed is not offered by the treatment provider; the client not calling the treatment provider every morning to see if a bed became available; lack of an available state-funded slot for clients without insurance; or having an unpaid bill for prior services. On occasion, when a service became available, the client had either made another arrangement or no longer desired the service. This has health care implications as research on alcohol and mental health disorders found that motivation for treatment is fluid and may differ across domains.

Regular contact is critical in building the relationships between project staff and participants. Many participants have a long history of distrust of the legal system and of treatment providers, which they often associate with part of a system from which they feel alienated. Through regular and in-depth contacts, participants become more open in expressing their needs and more amenable to allowing staff to work with them to address these needs. An earlier study speculated that failure to obtain needed services was related to client disengagement from services. The fact that many referrals made for social services (specifically, for housing, mental health treatment, and substance use treatment) ended in clients not receiving these services has implications for the ability of programs to engage this population effectively to provide them with the assistance they need. Other studies have shown an association between receiving mental health services and a higher likelihood of receiving HAART and medical care.

Limitations. Given the small sample size of our population (59), our results may not be generalizable to the U.S. population of HIV-positive ex-offenders as a whole. Additionally, Rhode Island is a small state, which facilitates linking inmates to services given the relatively concentrated network of community providers. It is unclear if the Project Bridge model, with a team of social workers and outreach workers, can be sustained in other settings because of staffing costs in areas where there is a higher burden of HIV-positive ex-offenders. However, the relatively short-term program costs should be evaluated in terms of the long-term costs associated with people who are disconnected from care. Finally, clients who were re-incarcerated for more than 6 months were terminated.
from the study, which could have introduced bias. However, only six such clients were terminated and their demographic characteristics were similar to those of the population reported here. These clients were terminated from the study as their sentence length extended beyond the study period. Thus, data could not be gathered during incarceration as it does not reflect possible intervening variables related to medical care and social service needs in the community.

**ENDNOTES**


Enhancing Continuity of Care Through Medical Discharge Planning in a Large Urban Jail System

John P. May, M.D.
Nazim Hamid, Ph.D.

Release from jail into the community can be challenging for inmates, particularly for those with health conditions that require ongoing care. This paper describes a medical discharge planning program within the Hillsborough County jail system (Tampa, FL) that connects patients to health and community services. During a two-year period, 1,872 inmates received discharge planning services. For those who needed health care coverage, 94.5% applied and were approved for the county’s health care plan. Of these, 70.8% attended the community health center to which they were referred upon release. Program feedback from inmates was positive. Medical discharge planning fills an unmet need for inmates to continue care and for practitioners to transition care.

Introduction

Continuity of care is considered to be a defining characteristic of primary care medicine and a standard of correctional health care. The Institute of Medicine defines continuity of care as a core attribute of primary care medicine (Committee on the Future of Primary Care, 1996). The American Correctional Association requires that continuity of care be established from admission to transfer or discharge from the facility, including referrals to community-based providers, when indicated (ACA, 2002). Discharge planning for inmates with serious health needs should include formal linkages between the facility and community-based organizations; lists of community providers; discussions with the inmate that emphasize the importance of appropriate follow-up and aftercare; and specific appointments and medications arranged for the patient at time of release (NCCHC, 2003).

This paper describes a program of medical discharge planning within the Hillsborough County jail system, in Tampa, FL. The jails are comprised of two main facilities with a 2008 mid-year average daily population of 3,985 (Minton & Sabol, 2009). Admissions to the jails in 2008 totaled 72,211, with 71,744 released. The program to provide formal continuity of care for inmates being released with serious health care needs began in 2006, under the direction of a private health care vendor that contracted to begin medical and mental health services at the jails in late 2005. The cost of the...
program is primarily the staffing of a single, full-time employee, and discharge medications comprising less than 1% of the total health care budget.

The Needs of Incarcerated Persons

For some, incarceration can be redemptive, a time for coming to terms and reforming from harmful behaviors, addictions, dangerous environments, and illicit activity. But for many, incarceration can be destructive, especially for those removed from their fragile social support network. Due to incarceration, many lose jobs, housing, property, employability, reputation, and/or family and friend support. For these individuals, the release from jail or prison where the basic needs of food, shelter, safety, and health are met, into communities without structure, support, or resources can be overwhelming (May & Pitts, 1999). Responsive discharge planning can improve the likelihood that this transition is successful.

For nonincarcerated persons with complex health care needs, care is frequently transferred and required in multiple settings. Incarcerated persons with these needs are particularly vulnerable to experience interruptions in quality of care and care fragmentation (Coleman, 2003). Recognizing the risks associated with these transitions, and delivering patient-centered care, helps to mitigate the problem and bring better outcomes.

Every human being needs to meet the basic physiological needs of food, shelter, safety, and health. These were described in the classic analysis of human behavior by psychologist Abraham Maslow (Maslow, 1942). Maslow’s Hierarchy of Needs is often depicted as a pyramid consisting of 5 levels referred to as motivational needs (see Figure 1). The lower the needs in the hierarchy, the more fundamental they are and the more a person will tend to abandon the higher needs in order to meet the lower needs. In this context, the priorities and behaviors of inmates being released from jail or prison can be understood.

Before a former inmate can be successful within his or her community, he or she must seek to meet basic needs. An example of this pathway is represented in Figure 2.

The model of discharge planning at the Hillsborough County Jail identifies an inmate’s level of need and serves to set the inmate on a path to meet those needs. Since health is one of the basic needs, it must be satisfied before higher functioning can be achieved.

The Medical Discharge Planning Program

The primary intent of the medical Discharge Planning Program in Hillsborough County is to connect inmates in the jails who have ongoing health needs to community health centers upon release. The program also assists inmates in meeting other post-release needs such as housing and employment through a network of social service agencies. Inmates receiving medical discharge planning services are those with chronic health problems, including mental illnesses or substance addiction. Most are indigent, and many are homeless or transient dwellers. The primary objective has been medical case management, but additional social services have been incorporated as needs and resources have been identified. This has led to the prioritizing of programs for those with complex health needs.

In the development of the program, partners were solicited and developed by the medical vendor and sheriff’s office and included the Hillsborough County Department of Health and Social Services, the Florida Department of Public Health, local federally qualified health centers, and various community medical and mental health providers. The discharge planner and sheriff’s office social worker served as the liaisons with all partners. As the program grew, a part-time social worker from the Department of Health and Social Services was assigned to
the jails through a federal grant to work closely with the medical discharge planner. Multiple social service agencies, including those providing employment assistance, job training, housing, drug addiction treatment, and other services, joined to participate in the effort. Meetings with primary partners occur once monthly, and all organizations meet at least twice yearly to identify ways to respond to the needs of those being released from the jails.

The Process of Discharge Planning

The coordination of meeting health care needs upon release begins when the inmate is first identified with a chronic health condition, typically during the health screening at the booking process. The inmate — now a patient — is referred to the jails' health care providers for evaluation and care. A treatment plan is developed that might include a referral to the discharge planner if the patient does not have an identified medical home in the community. The discharge planner then schedules an encounter with the patient, now client, to conduct a needs assessment. Clients are also referred to the discharge planner via self-referral, public defenders, or custody staff.

Based on the needs assessment, the client is prepared for release and reentry into the community. If the client cannot identify a preexisting medical home in the community, or does not have private health insurance, veteran's benefits, Medicare, Medicaid, or other coverage, an application is completed and submitted to the Hillsborough County Health Care Plan, Hillsborough Healthcare. This plan was established in 1991 through an act by the county commissioners and funded through a one-half cent per dollar sales tax. It is a comprehensive managed health care plan for indigent residents with incomes up to 100% of the federal poverty level who do not qualify for other coverage. Recipients must live in the county for at least one year, be a citizen or legal resident of the United States, and not have more than $5,000 in assets among other criteria. Services are provided by a network of primary and specialty care providers, hospitals, mental health providers, and dental clinics through contracts with public and private providers. The plan is administered by the Hillsborough County Department of Health and Social Services with oversight by a community advisory board. A provision added in 2005 excludes persons with three or more felony convictions from qualifying for the plan.

Prior to 2006, there had been little formal effort to enroll or connect inmates in the county’s jails to the county health plan. The medical discharge planning program changed that. The application is usually completed within 15 minutes during a single session with the client, and requires demographic, employment, schooling and financial information. The jails' booking “mug shot” is used for the application’s photograph requirement. The application is then delivered by courier or facsimile to the county agency responsible for processing applications. Review and approval, including preparation of a laminated identification card, are typically completed within a few days. Priority approvals can be obtained within a few hours and a machine has been installed at the jails to print and produce the cards on-site.

The discharge planner identifies the participating community health center located closest to the client’s primary residence. If the client is homeless, a shelter is selected with a nearby health center. Clients also receive detailed information about the clinic including location, hours, and scope of services. For some, appointments are made if the release date is known. If the client was receiving Medicaid or Medicare prior to incarceration, an application for the county health care plan is not completed, but instead the discharge planner provides information on how to reapply for benefits after release.

An individualized packet of materials is reviewed with and prepared for each client. The
health care provider completes a medical summary and copies pertinent laboratory or diagnostic test results and information on how to contact the provider if more information is required. In complex cases, the provider will call ahead to the clinic. If medications are being taken, a nurse discusses their indications, dosing instructions, and side-effects. The packet is placed at the property desk for the client to retrieve upon release from the jail. Contents vary, but can include:

- A three-day supply of general medication or a seven-day supply of psychotropic medication, depending on the individual’s need;
- A prescription for a 30-day supply of medication that can be filled at designated pharmacies or health centers in the county;
- A completed summary of the individual’s clinical history;
- A Hillsborough County Health Care Plan identification card;
- A transition package with information on short- and long-term housing, employment, food and clothing assistance, social service assistance including food stamps, disability benefits, and social security as necessary;
- A community resource guide;
- A public bus transit pass; and
- A contact telephone number for the jail’s discharge planner.

Results

Three preliminary indicators were selected to reflect the value and effectiveness of the Hillsborough County Jail Medical Discharge Planning program during the first two years of the program: a) approvals for health coverage following applications to the county health care plan, b) attendance at the designated community health centers following release from jail, and c) statements from clients receiving discharge planning. These indicators were measured from March 2006 through February 2008, during which time comprehensive medical discharge planning services were provided to 1,872 clients, an average of 78 each month, or four new clients each weekday. Data were collected on the number of inmates who were released prior to seeing a discharge planner or who did not use services.

Approvals for health coverage. Of the 1,872 clients with chronic health conditions seen by the jail’s discharge planner during two years, 1,521 (81.3%) did not have preexisting health coverage and completed applications for the county health care plan. The remainder (18.7%) had private insurance, veteran’s benefits, Medicare, Medicaid, or other coverage. Of the 1,521 different applications submitted to Hillsborough Healthcare, 1,437 (94.5%) were approved.

Community health center attendance. Those qualifying for the county health care plan, 1,437 of 1,872 (76.8%), were referred to community health centers within the plan’s network including several federally qualified health centers. These community health centers were later queried to determine if the clients utilized their health care services within the first month following release. Of these, 1,017 (70.8%) attended and received a health care visit at a participating health center within the first month of release.

Of the others, 351 (18.8%) did not require referrals to health centers because they already had a primary care provider, private insurance, received care at the Veterans Affairs hospitals, or previously qualified for Medicaid or Medicare benefits. The remaining 84 (4.4%) needed health coverage, but did not qualify for the county health care plan for various reasons. They were provided instructions on how to access public health clinics outside of the plan’s network. It was not possible to track the health care utilization of those not needing or qualifying for the plan because they may have sought care at a wide variety of institutions.

Statements from clients. Formal evaluations or surveys from clients receiving discharge planning services had not been done. Several clients during the two years, however, provided feedback on their own initiative to relate their experience with the Discharge Planning Program. A sample of unsolicited letters or statements follows:

- “I think this is going to help me by taking better care of my health and this is a chance for me to get myself together.
I think this is a good thing for people like me. Thank you.”

• “My life has been in shambles these past few years and now I have hope and help to change my life. I now have the county health insurance that I can have free medical and a place to stay. No more homelessness.”

• “I am just amazed that this program exists and I am thrilled about the great help I am being offered. This is an excellent opportunity for me to get ‘re-started’ in life. I intend to use this chance to better my life. I hope this program would continue for those following me. Thank you.”

• “It is most pleasant to meet and talk with the discharge planner to get help. When you feel optimistic, there is hope. I believe that this program is very useful and will help many as I intend to do. The discharge planner needs to be on a TV show for giving people hope in the future.”

Discussion

Practitioners and investigators have long recognized that persons entering jails are unlikely to have preexisting private or public health care coverage (Conklin, Lincoln, & Tuthill, 2000; Lee, Vlahov, & Freudenberg, 2006; Wang et al., 2008). For those who do, these benefits are often suspended or terminated during incarceration, and reinstatement following release can be complicated and contain barriers (Gibbons & Katzenbach, 2006).

Yet even in a county that has offered health coverage for the indigent for more than 15 years, we found a large number of persons (81.3%) identified with chronic illnesses at the jails who did not have health coverage or a medical home. The Hillsborough County Health Care Plan provides a unique vehicle for jail-based medical discharge planning as most states or counties do not provide universal health coverage, or something similar. Even so, other local and federal programs, such as the more than 1,000 federally qualified health centers throughout the United States, which accounted for more than 63 million patient encounters in 2007 (Henry J. Kaiser Foundation, 2008), bear promise to jails for continuity of care when transitioning into the community.

At the Hillsborough County Jail program, nearly all (94.5%) who needed health coverage qualified and were approved for the health plan, and most (70.8%) followed up at their medical clinic within one month after release from jail. Although the long-term follow-up of clients receiving medical discharge planning services was not measured in this review, the short-term results are encouraging. The need was there, and the majority sought to fill it.

The results are similar to other jail-based medical discharge planning programs such as the Hampden County Correctional Center (Springfield, MA) where 65% kept their first medical and 70% their first mental health care appointments within 30 days (Lincoln et al., 2006). Research into continuity of care remains limited by differing definitions and measurement techniques. Visit patterns showing longitudinal continuity are a means to an end; they are not the ends in themselves (Saultz, 2003). Patient satisfaction is another, and many patients expressed satisfaction. In the final analysis, jail medical programs should be most concerned with involving the patient in the process — from identifying chronic health needs at initial booking, to building a program of patient-centered care through periodic chronic care visits, to transitioning to strong enduring medical homes in the community.

Limitations to the assessment of this program include the difficulties replicating linkages in a county that does not have a comprehensive health care plan for indigent residents. Also, outcomes related to the seriousness, complexity, or overlap of various physical, mental, and additional health conditions were not distinguished. It is a muddle of medicine: Persons whose conditions require complex, continuous care frequently require services from different practitioners in multiple settings, but practitioners in each setting often operate independently, without knowledge of the problems addressed, services provided, information obtained, medications prescribed, or preferences expressed in previous settings (Institute of Medicine, 2001). These patterns are even more blatant in correctional medicine. Recognizing the hazards inherent in failed health care transition planning, the American Geriatrics Society (Coleman & Boul, 2003) issued positions that are also lessons to correctional medicine:
• Clinical professionals must prepare patients and their caregivers to receive care in the next setting and actively involve them in decisions related to the formulation and execution of the transitional care plan.
• Bidirectional communication between clinical professionals is essential to ensuring high-quality transitional care.
• Policies should be developed that promote high-quality transitional care.
• Education in transitional care should be provided to all health care professionals involved in the transfer of patients across settings.
• Research should be conducted to improve the process of transitional care.

A jail-based medical discharge planning program can build transitions so that continuity of care happens. It must be patient-centered, providing care that is respectful of and responsive to individual patient needs. It should identify persons within the community who need, but lack, health care coverage and connect them to services and medical providers. The costs are minimal, and the payoffs can be substantial. Previously disconnected persons can receive health maintenance, preventive care, motivation for risk behavior modification, and access to social and support services to meet basic needs. Together, these resources can slow the progression and consequences of chronic disease, reduce acute events or deterioration requiring hospitalization or costly interventions, generate social service referrals and resources, and stabilize otherwise chaotic and fragile lives, thereby allowing individuals to reach for more and achieve higher-level needs.

REFERENCES


Ethical dilemmas in correctional environments are manifold and have unique issues associated with them. This article explicates many of these issues, gives specific examples, and describes the current state of the law in this area. Few correctional systems have attempted to address these problems in an organized fashion. This article suggests one mechanism to uniformly and judiciously deal with them.

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Introduction

All human actions eventually create conflicts and those conflicts have the potential to create ethical dilemmas. These dilemmas take on a higher order of responsibility when they involve actions or decisions concerning life or liberty. Many health care facilities recognize this and have established ethics forums for discussion and evaluation of both situations and individual patients.

Corrections professionals deal with a broader and deeper array of ethical issues than hospitals, but unlike other segments of society, correctional systems usually do not address these problems in a formal fashion. Only Florida and Hawaii have organized bioethics units, and the unit in Florida has been dormant since 2003.

Corrections professionals face all of the typical issues that impinge on an ethical system — life, death, birth, genetics, education, law, justice, and research — as well as many unique to their own environment. The number and types of these issues can be overwhelming. This article attempts to address some of these ethical dilemmas and create a framework for rational ethical decision-making.

The incarcerated person is the only American who has a federally guaranteed right to health care (Estelle v. Gamble, 1976). Although a prisoner’s constitutional right to treatment under the Eighth Amendment is not unlimited, court initiatives have determined that all inmates and detainees are entitled to: access to health care, a professional medical opinion, and the right to treatment based on that opinion. Anything that interferes with any of those three items trips the threshold of deliberate indifference. The U.S. Supreme Court is and has been obscure in defining deliberate indifference and necessary constitutional care, reserving for the judiciary exclusively the determination of constitutionality of care.

This creates a variety of ethical dilemmas for the correctional practitioner. First, what is necessary care? Clearly, a medical or surgical emergency falls within that definition, as does routine health care for chronic illnesses. But what happens when an inmate’s condition is not acute? Second is the issue of health care research in corrections. The third ethical issue is how much care is too much?
Ethical Issues

Research in corrections. The American Correctional Association unanimously ratified a statement involving research in corrections, which, on its face, has profound ethical implications. Section D of that policy “prohibit[s] the use of offenders as experimental subjects in medical, psychological, pharmacological, and cosmetic research except when warranted and prescribed for the diagnosis or treatment of an individual’s specific condition in accordance with current standards of health care.”

The intent of this policy is clear. It attempts to prevent the situation that occurred prior to 1959 in American correctional systems. Before that year, no drug entered the U.S. market that had not first been tested on an incarcerated population. These human subjects were neither volunteers nor gave informed consent. They were not told of possible long-term side effects and had little say in accepting or not accepting the experiments. Selection criteria for inmate participants were established by the administration in collaboration with the pharmaceutical manufacturer and excluded specific populations on the basis of race. Inducements were presented to the subjects that would be considered coercive in today’s environment and included shorter sentences, better living conditions, and more privileges (Hornbloom, 1998; Paar, Thomas, Thomas, Thomas, & Colton, 2005).

While the ACA policy described above clearly prohibits abuse among its adherents, there is another side of this issue. Many incarcerated persons cannot obtain access to cutting-edge medical therapy for a rapidly changing disease process because of their incarceration. For instance, in the early days of the AIDS epidemic, new, untried therapies were in the hands of medical investigators long before they were available to practitioners. Many of these regimens were truly lifesaving, but they were not the standard of acceptable medical practice. If a nonincarcerated person required this intervention, it was readily available from the investigator. If an incarcerated person needed this therapy it would not be available because of his or her incarceration status.

Many practitioners realized this and established research and investigative units within correctional systems to provide inmates with opportunities for cutting-edge therapies. While some people felt this was unethical and no inmate could ever truly be a volunteer, most felt it was an acceptable way to provide inmates needed health care. The Office of Human Research Protection (OHRP), a branch of the Office of the Secretary of Health and Human Services, closely evaluated most of the facilities conducting this research and, for the most part, determined that there was no real violation of statute or intent of statute.

Having an orderly program of medical and nonmedical research in corrections is valuable to inmates and society. The Institute of Medicine realized this in June 2006, when it published its findings on correctional research and backed away from many of its original stances. The institute realized the overall value of research in corrections and suggested that prisoner research was a worthwhile and beneficial effort. First, however, five specific areas needed to be addressed: expand the definition of “prisoner”; ensure universally and consistently applied standards of protection; shift from a category-based to a risk-benefit approach to research review; update the ethical framework to include collaborative responsibility; and enhance systematic oversight of research involving prisoners (Institute of Medicine of the National Academy of Sciences, 2006).

How Much Care Is Required?

At one time it was thought that conditions not defined as “serious medical need” were excluded from constitutional care. For instance, the Federal Bureau of Prisons refused to do elective hernia repairs, though it has since permitted some elective repairs (N. Kendig, personal communication, 2000). Also, most systems deem cosmetic medications and procedures as not serious enough to require a constitutional level of care. Most systems do not provide elective cosmetic surgery unless it is a part of a reconstructive process. Some systems have medical regimens to support individuals who have undergone sex change surgery, others typically deny this therapy. However, most systems do provide therapy for acne vulgaris in some form or another.

A more difficult dilemma. When is it permissible to stop care when the patient is not responding in a correctional setting? This is a far more difficult task than in a typical hospital
or health center because of corrections' constitutional requirements. All health care reimbursement systems face the problem of maximum medical benefit. This occurs when a patient's condition is no longer likely to improve by expending further resources. In the noncorrectional environment, this is accomplished by depletion of insurance and/or public benefits. Upon depletion, the patient may absorb the cost individually or terminate the care. There is no such concept in corrections nor has the U.S. Supreme Court determined when the benefit of continued treatment is outweighed by the lack of response. Each correctional physician and correctional administrator must determine independently when, if ever, to terminate health care for patients who have reached maximum medical benefit.

One case illustrates this vividly. It involved a man who had attempted suicide by firing a shotgun under his chin. He failed to kill himself and subsequently was sentenced to incarceration for previous crimes. His medical condition was serious and more than just cosmetic. Because of the trauma from the shotgun, his entire lower jaw had to be rebuilt in order to give a portal for nourishment. Dental hygiene was essential to keep the inmate's oral cavity patent. However, the patient refused to involve himself in any of his own care and the portal regularly closed and had to be surgically reopened. Mental health consultations and other modalities were used in an effort to get the inmate to care for his oropharynx, but it was all to no avail.4

After nine surgical procedures to recreate the mouth area, all of which eventually closed because he would not care for the opening, the case was presented to the bioethics committee for a consultation. Because the opening would have remained patent with just a small amount of care, the committee reasoned that the department had done more than it should have for this inmate; the committee members said they would have stopped surgery before the fifth procedure. Extensive discussions were held concerning the inmate's right to refuse surgery, which he never did, and the department's requirement to provide necessary care. Without the surgically created aperture, there was no way the inmate could eat other than with a feeding tube or hyperalimentation. The inmate had regularly and repeatedly refused a feeding tube. Although some of the discussions were agonizing, the committee deliberated thoughtfully and made the recommendation that the department do nothing further. The Office of Health Services never had the opportunity to accept or reject the advice of the committee on this inmate because prior to the aperture closing, the inmate was released from custody due to the results of a class action lawsuit (Thomas, 2003). In the case of Washington v. Harper (1990), the court ruled that correctional personnel can create a panel to determine if an inmate should receive medications against his or her will. The caveat is that the inmate's interest must be zealously represented, usually by a chaplain, psychologist, or psychiatrist appearing for the inmate. Certain states, such as Florida, specifically exclude the Washington v. Harper process. In Massachusetts, corrections officials must go to a court of competent jurisdiction and obtain a court order to treat an inmate against his or her will.

Similarly, a bioethics panel was used to mitigate a potential death in a particularly interesting case involving an end-stage renal dialysis patient who was experiencing a psychotic episode and refusing care. Typically, an emergency court hearing would have taken too long and would have put the inmate in danger of uremia poisoning. The patient would have required one hearing for determination of competence, and if the court determined he was incompetent, a second court hearing would have to be held to rule on treatment against his will. At that time, Florida statute was rather strict in protecting inmates in DOC custody.

An emergency meeting of the bioethics committee was held by telephone. The committee unanimously supported the department's position that the inmate should be dialyzed immediately, if necessary, against his will and then treated for his psychoses, again if necessary, against his will. Once his medical and mental health conditions were stabilized then appropriate consents could be obtained retrospectively. If he would not retrospectively consent, the committee was willing to support the department's decision in any court or administrative proceeding (Thomas, 2003).

This is a true ethical dilemma. Is it a violation of the public trust to continually expend
resources on inmates for whom all reasonable maximum medical benefits have been expended? This is a very slippery slope, and the issue needs to be addressed with systemwide respected ethics committees, which could establish guidelines and precedents to assist in this area.

**Doctors in executions.** Most physician organizations have broad proscriptions against physicians being involved in executions. The American Medical Association has a very clear position on physicians involved in executions — it is strongly opposed to it. Other physician groups have adopted similar positions concerning physician participation in execution. Contravening this are many state statutes, which require a physician presence or active participation. Most states require the pronouncement of death to be by a physician and many require physical presence. Indeed, Florida has taken the unique position that prescribing medication to bring about death does not constitute the practice of medicine and excuses physicians and others from the execution chamber predicated on their own beliefs and morality (Florida Statute, 2003). This is a subject that is certainly fraught with ethical dilemmas and should be considered by a broadly-based group for guidance to all of corrections.

**Patient volume and formularies.** The interaction between health care providers and their patients is predicated on trust. The provider has a paramount responsibility to the well-being of the patient. Once again the extreme of this principle is obvious, but all managed care organizations engage in activities that erode this trust and violate the primacy position of the patient. Correccional environments are notable for this. Not only are they inherently coercive, but staff also suffer intimidation from inmates. At what point does adding a few more patients on the daily list of inmates to be seen violate the practitioner’s ability to provide for the patient’s best interest? At what point do formulary restrictions become so onerous that the trust between a provider and a patient is breached?

While all health care environments deal with some of these issues, in corrections they are magnified. Legislatures and the public simply resent funding medical services for the incarcerated. The underlying sentiment is one of obligation to meet the constitutional requirement, as opposed to embracing the larger public health issue. Today’s inmate will be someone’s neighbor in the near future. Most inmates have sentences of less than three years and even in the South, where sentences tend to be longer, they average less than eight years. Once out of the correctional community, inmate patients enter the societal community. Diseases that are not treated appropriately in the correctional setting have an impact on society as a whole. What could and should be done about this and where can one go for guidance?

**Possible Solutions to Ethical Dilemmas**

An effective approach to dealing with ethical issues in corrections would be for an umbrella organization, like ACA, to create a bioethics forum modeled after hospital bioethics committees. It could be composed of experts in the field of medicine, correctional medicine, nursing, ethics, and other related disciplines. Each corrections professional could have access to the forum in the same way that all employees and personnel of a hospital have access to the bioethics committee. The results of the deliberations, just like in a hospital, would be advisory in nature only. However, much like in other areas of health care, after a period of time, there would be a body of results that would establish needed ethical trends for the field.

While individual systems have attempted this, the turnover of new administrations has caused forums like this to fall aside. The advantage of a national private organization undertaking this would be manifold. First, there is assurance that the deliberations could be kept confidential, and after the deliberations documents are de-identified, generalized facts could be compiled. This body of knowledge would contain examples of specific ethical problems to which corrections professionals could turn for guidance in decision-making. Second, unlike the transient administrations of most correctional systems, there could be a long-term effort approaching perpetuity. Third, unlike many existing ethics committees, this would be an ethics forum for the discussion and resolution of specific as well as general ethical dilemmas. The Healthcare Professional Interest Section of ACA could take the initiative to breach this topic and generate a forum for ethical deliberations.
ENDNOTES

1 Survey of correctional systems conducted in 2002 by the Office of Health Services of the Florida Department of Corrections.


3 OHRP sent out several determination letters to sites involved in medical research with prisoners. For the most part, these letters cited small problems usually found with institutional review board proposals. Though only one site had significant public policy concerns, many sites closed down their prisoner research in the wake of these determination letters because they were intimidated by the federal response. Interestingly, all of these sites were academic institutions. None of the private, nonacademic affiliates’ sites were evaluated by OHRP.

4 The majority of this paragraph and the following four paragraphs directly quote material on p. 68 and 69 of the October 2003 Corrections Today article “Bioethics in Corrections,” by the author.

5 Principle VIII as reflected in the AMA Code of Ethics. (2004). “A physician shall, while caring for a patient, regard responsibility to the patient as paramount.”

REFERENCES


Healthcare Professional Interest Section
American Correctional Association

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The Healthcare Professional Interest Section (H-PIS) of ACA brings together health care practitioners and providers with correctional leaders and security professionals to examine important health care and treatment issues relevant to the corrections field, and to improve communication and operations for all facets of corrections. Treatment and security professionals working together will advance the corrections profession and improve management and programming.

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In January 2007, the American Correctional Association administered the first national correctional nurse certification exams at the Winter Conference in Tampa, Fla. The two exams Certified Corrections Nurse Manager (CCN/M) and Certified Corrections Nurse (CCN) give national recognition to correctional nursing as a specialized field of nursing practice.

Correctional nursing offers an array of opportunities and challenges for nurses to improve their skills in many areas. Correctional nurses acquire experience in preventive care, chronic care management, infectious diseases, obstetrics and gynecology, managing emergencies, and community health education. In addition to using a variety of nursing skills, a correctional nurse needs to be familiar with safety, security concerns, and the specific legal issues involving offenders.

The CCN/M and CCN exams test the individual’s knowledge and skills in all the areas mentioned above. The certification credential is good for three years. Within that three-year period, one needs to continue his or her education and training by earning continuing education (CE) contact hours toward recertification. A CCN/M needs to accumulate 80 CE contact hours and a CCN needs to accumulate 60 CE contact hours to become eligible for recertification. Acquiring CE contact hours is a good way to “fill in the blanks” in your education and career development as you move forward in your career track.

ACA’s nurse certification program begins with a self-study period that ends with a 200-question, four-hour, proctored exam. There are six resource books available to CCN/M candidates and six for CCN candidates. (Resource materials and exam fees are priced separately.) A study period of three to four months is recommended. Once a candidate is ready, there are several exam options:

- Register to take the exam at one of the scheduled sites listed on ACA’s Web site, www.aca.org. The list is updated monthly.
- Take the exam at a Dantes testing site. Check the Web site for a site locations at www.dantes.doded.mil/Dantes_web/apps/testcenters/testcenterlookup.asp.
- ACA can find a certified professional in your geographical area to proctor the exam.

To qualify for the CCN/M exam, one needs to have an RN license; one year of experience working as a correctional nurse manager, who supervises other medical personnel and administrative staff; and either a three-year nursing diploma, an associate degree, a Bachelor of Science in nursing, or a Masters of Science in nursing. To qualify for the CCN exam, one needs to have one year of correctional nursing experience working as a “line nurse” in a staff position and be licensed as an RN, LPN or LVN.

For more information on ACA’s nurse certification program, e-mail Peg O’Brien at pobrien@aca.org or call 703-224-0175.
Correctional Health Today Journal

Submission Criteria

Correctional Health Today is an interdisciplinary, peer-reviewed, academic publication devoted to examining all areas of health care within corrections. CHT is available to members of the American Correctional Association's Healthcare Professional Interest Section. Copies of the journal or articles in the journal may be distributed for research or educational purposes without charge, provided that all appropriate citation information is included. However, commercial use of Correctional Health Today or the articles published in the journal is expressly prohibited without the written consent of the publisher.

CHT is available in both print and electronic formats. Articles are published on a regular basis with consecutive issue and volume numbers. Authors are invited to submit their work at any time throughout the year. All peer-reviewed articles must meet rigorous standards and can represent a broad range of substantive topics, theoretical orientations, empirical methods, and analytic strategies. Material that is unlikely to be published in Correctional Health Today includes opinion and editorial manuscripts, research that is not theoretically grounded, book reviews, and work outside the broadly defined purview of health care and corrections.

Manuscripts must conform to specific guidelines. ACA reserves the right to modify submissions to meet stylistic and editorial considerations; however, ACA requires the author(s) to retain responsibility for general copy editing, including proper grammar, style, and formatting. Authors are directed to the APA Publication Manual (6th edition) for specific guidelines in manuscript preparation. Failure to conform to these guidelines may result in the editor returning the manuscript to the author(s) without an external review.

General Information

1. Submission of an article for peer review implies a commitment on the part of the authors to publish in this journal if accepted. Thus, authors who submit articles to this journal should not simultaneously submit their manuscript to other outlets or journals. Questions may be directed to the editor at CHTeditor@aca.org.

2. Articles should be formatted in Microsoft Word. After a thorough editing and final review of a manuscript, send the submission as an e-mail attachment to CHTeditor@aca.org. All submissions will be peer reviewed in a timely and critical (but constructive) manner.

3. Pages should be set up for 8-1/2 x 11 inch paper size with 1-inch margins. All pages must be in portrait layout. Do not use a landscape layout for any pages. Also, do not use page breaks or section breaks to format the manuscript.

4. All copy should be double spaced and follow the guidelines established in the APA Publication Manual for organization, expression of ideas, grammar, editorial style, structure and format.

5. Manuscripts should not be less than 3,000 words, excluding references, and no more than 8,000 words. Crisp, clear writing is the goal. Longer manuscripts are accepted but may result in a longer review process.

6. Parenthetical citations should be used for sources. The “References” section must comply with APA guidelines in format, presentation and content.

7. Endnotes should be used only when necessary for explanatory purposes. Do not, however, use the endnote/footnote function in Microsoft Word to produce them. Instead, they must be manually entered. The endnote number should be entered in the text in brackets (e.g., “[1]”) following the passage to which the endnote corresponds; it should not be superscripted. The endnote should then be entered in a section at the end of the paper, with the heading “Endnotes.” Do not use footnotes.

8. Tables/charts can be created with the Microsoft Word table editor and should be placed at the end of the manuscript file. Author(s) may indicate where in the manuscript a table/chart should be placed with boldface type in brackets.

9. Figures should only be used if they add to the information in the paper. They should not be used if they contain information reported in the text or tables. If figures are absolutely necessary, they must be prepared as JPEGs and sent as attachments with the paper. The figures should not incorporate color.

10. The title page should include the complete contact information for all authors and a list of three to six key words that best describe the content of the submission.

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Roche
From Research to Real Life

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