PHARMACY EVALUATION PROJECT

Purchasing, Distribution and Utilization
of Pharmaceuticals within the
Iowa Department of Corrections

FINAL REPORT

Submitted by

IOWA PHARMACY FOUNDATION

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IOWA DEPARTMENT OF CORRECTIONS
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I. EXECUTIVE SUMMARY

At the request of the Attorney General's office and the Iowa Department of Corrections and with considerable interest expressed by key legislators, an expert panel was formed in the fall 2009 to assist in the evaluation of pharmacy services for the Iowa Department of Corrections (IDOC) institutions. The evaluation team consisted of pharmacists with substantial institutional, community-based, long-term care, purchasing / buying group and clinical services backgrounds.

The specific goal of the evaluation was to create recommendations for cost effective options for a) purchasing pharmaceuticals, b) ensuring a quality based medication distribution system, c) ensuring adequate organization and appropriate levels of pharmacy staffing, and d) exploring the health outcome and economic benefits of clinical pharmacy services. In short, the overriding goal is to optimize medication-related care and where appropriate reduce medication-related costs.

Pharmacy services for the IDOC encompass care for approximately 8,500 offenders at any given time, residing in one of the nine IDOC institutions. Approximately two out of every three offenders receives a pharmacy medication (both prescription and non-prescription). For 2009, it is estimated this resulted in approximately $10M in medication costs.

The medication management system utilized by the IDOC is based on processes that have evolved over a long period of time. It is evident that individuals are working to

improve the overall pharmacy system. However, care is being provided with a pharmacy system that needs to be restructured to take advantage of contemporary institutional systems for pharmacy services. The integration of the system across all IDOC facilities and the utilization of newer medication management system designs are not optimal. Purchasing and distribution systems are fragmented and would benefit from system-wide coordination. Formulary and clinical services are not utilized in manner that will optimize outcomes related to safe and clinically effective care. Combined, there are opportunities to redesign the medication system to create more cost efficient medication use while providing appropriate health care. Steps to improve the system have been initiated. Two recent evaluations of the Iowa Department of Corrections (IDOC) pharmacy system recommended that the IDOC create a centralized pharmacy operation. On July 1, 2009 IDOC appointed the first Director of Pharmacy and began the process of building centralized pharmacy services. The IDOC was implementing a redesign of pharmacy services at the time of this evaluation.

Management of a medication program as complex as the one that involves the IDOC requires substantial changes. The purchasing system is fragmented and varies across institutions. IDOC should work to establish a centralized purchasing system for all nine correctional institutional facilities that will create greater discounts on drug purchase. Discounts are usually the best when working with a national group purchasing organization (GPO) that specializes in medications and related items. In order to prepare for and select a GPO, IDOC should secure the services of a consultant that will help manage the acquisition of pharmaceuticals. Once a consultant is in place, the State should impanel an expert advisory committee to offer immediate and on-going advice regarding the complexities of purchasing, distribution and clinical management of pharmaceuticals for large populations.

With the assistance of the consultant and advisory panel, the Department of Administrative Services should conduct an RFP process to secure services from a national GPO.

IDOC has committed itself to the establishment of a central pharmacy distribution program. A phased-in centralized distribution system for all nine correctional institutions, with special consideration for IMCC, should be pursued with the highest priority in order to maximize efficiencies. Once the new central distribution system is established, the use of provisional stock at each facility should be reevaluated to assure proper access while at the same time creating savings through decreased inventories. To assure proper and timely access to needed pharmaceuticals, each institution should have a standardized, rapid medication acquisition system in place to assure that there are no gaps in necessary care.

The IDOC has been working to improve the organizational structure of pharmacy services. The Director of Pharmacy should be clearly established as a full-time administrative role ensuring time to plan and activate initiatives that continue to strengthen pharmacy services. Missed opportunities for ensuring efficiencies and cost savings are presently occurring because the Director of Pharmacy services is also involved in the day to day distribution activities. Current staffing does not provide adequate support for a centralized purchasing and distribution system for all nine correctional facilities. IDOC should initiate staffing at the central pharmacy with 2 FTE pharmacists, 3-5 certified technicians, and a director of pharmacy. The evaluation team noted that there is a significant disparity between IDOC salaries for pharmacists and technicians in the IDOC system and the private sector. The State should reconsider its pharmacist classifications and re-evaluate pharmacist and technician salary categories.

A comprehensive program of pharmacy services must be implemented. IDOC Pharmacy services would be enhanced through the use of systematic data management

and clinical services. The evaluation team found the data on prescription purchase, distribution and usage to be incomplete and data collection to be fragmented. A comprehensive system of data collection and monitoring should be established by the Director of Pharmacy. The current system lacks contemporary clinical services that optimize care and minimize cost. The IDOC should establish a clinical pharmacy program to complete its transformation to a contemporary health care system. Such services could be secured via contract.

Because there is a similar need at both IDOC and the Department of Human Services (DHS) and because of the overlap of these two systems of State supported care, the State should align and integrate the purchasing and distribution of prescription and related products and the collection of data and provision of clinical services for IDOC and the DHS. IDOC and DHS administrators are urged to correct the fragmented approach in pharmacy services that connects these two services.

Last, IDOC should examine two programs, one State and one National, that have potential for cost savings opportunities. First, the Iowa Prescription Drug Corp (IPDC) medication redistribution program, a State of Iowa program, and the Iowa State Board of Pharmacy could work to create a system of repackaging and redistribution of unused medications, both for inmates and discharged offenders. One important national pricing program evaluated by the team was the potential use of low cost mediations through the 340B program. IDOC does not qualify for this program at this time. IDOC should monitor changes in the 340B program and changes in the delivery of care to IDOC offenders to determine if changes in either system will allow the use of 340B pricing in the future. Iowa legislators are urged to encourage federal officials to expand the federal 340B program to include state correction facilities.

II. INTRODUCTION

At the request of the Attorney General's office and the Iowa Department of Corrections and with considerable interest expressed by key legislators, an expert panel was formed in the fall 2009 to assist in the evaluation of pharmacy services for the Iowa Department of Corrections (IDOC) institutions. The evaluation team consisted of pharmacists with substantial institutional, community-based, long-term care, purchasing / buying group and clinical services backgrounds[1]. There were 7 meetings of the team, including a visit to the Iowa Medical Classification Center (IMCC)[2]. Outside the usual team meetings, members collected information regarding pharmacy practices. Of note were two valuable conference calls, including one extended conference call by three members of the team with representatives of Texas Tech University College of Pharmacy. That call provided a great depth of information on how pharmacy operations work for the Texas Corrections system. Support and information was provided by Dr. Harbans S. Doel, DO, PHD., medical director for IDOC and members of the Iowa Department of Administrative Services. Susan Shields, Director of Pharmacy for IDOC, also provided substantial amounts of her time, knowledge about the pharmacy operations, and effort to provide the team with data, where available. Her involvement was invaluable to the evaluation team and helped to create a quality evaluation process.

Pharmacy services for the IDOC encompass care for approximately 8,500 offenders at any given time, residing in one of the nine IDOC institutions. Approximately two out of every three offenders receives a pharmacy medication (both prescription and non-prescription). For 2009, it was estimated this resulted in approximately $10M in medication

[1] Team names and affiliations are listed in the appendix.

[2] Minutes of the meetings are located in the appendix.

costs. Personnel and other pharmacy services costs were not aggregated by the IDOC and therefore not available to the evaluation team. The team used available IDOC data to estimate prescription costs (See table in appendix). However, because of the lack of historically collected data the cost calculations could not factor in critical information, such as the type of prescriptions or duration of therapy, and therefore it was impossible to compare the cost per facility estimates across the institutions.

The specific goal of the evaluation was to create recommendations for cost effective options for a) purchasing pharmaceuticals, b) ensuring an efficient and quality-based medication distribution system, c) ensuring adequate organization and appropriate levels of pharmacy staffing, and d) exploring the health outcome and economic benefits of clinical pharmacy services. In short, the overriding goal is to optimize medication-related care and where appropriate reduce medication-related costs.

III. PREVIOUS IOWA DEPARTMENT OF CORRECTIONS EVALUATIONS THAT INCLUDED PHARMACY

There have been two recent evaluations of the Iowa Department of Corrections (IDOC) that included the pharmacy system. In 2005, a consulting firm, Reference Point (report not available to the evaluation team), examined potential overall cost savings for the IDOC. One of the projects recommended for cost savings was the centralization of pharmacy services. This was followed by recommendations by the Durrant Consulting Group (report located on the IDOC website), which recommended IDOC consider the need to create a centralized pharmacy operation for their facilities. Following these two reviews, Pharmacist Susan Shields was appointed the first Director of Pharmacy on 1 July 2009, and a decision was made to centralize pharmacy services. One of the first objectives was to eliminate the contract with Diamond Pharmacy Services. They provide mailed prescriptions to four of the IDOC institutions. Briefly, this decision was made to create economic and organizational efficiencies while assuring appropriate medication related health care to offenders in the IDOC system.

IV. REVIEW OF CURRENT IOWA DEPARTMENT OF CORRECTIONS HEALTH SYSTEM AS IT APPLIES TO OFFENDERS RECEIVING MEDICATIONS

IDOC Medical and Pharmacy Administrative Organization: The IDOC health care system is led by a Medical Director, Harbans S. Doel, DO, PHD. Reporting to the Medical Director is a Mental Health Director, Bruce Sieleni, MD. The Director of Pharmacy, Susan Shields, RPh. also reports to the Medical Director.

IDOC Institutions: The IDOC operates nine "Institution" facilities: Clarinda Correctional Facility (CCF), Clarinda; Mt Pleasant Correctional Facility (MPCF), Mt Pleasant; Ft. Dodge Correctional Facility (FDCF), Fort Dodge; North Central Correctional Facility (NCCF), Rockwell City; Iowa Correctional Institution for Women (ICIW), Mitchellville; Iowa Medical and Classification Center (IMCC), Oakdale; Iowa State Penitentiary (ISP), Ft. Madison; Newton Correctional Facility (NCF), Newton; Anamosa State Penitentiary (ASP), Anamosa.

IDOC Institution Pharmacy Operations: Five facilities have on-site pharmacy operations (CCF, MPCF, FDCF, NCCF, IMCC) and four do not (ICIW, ISP, NCF, ASP) but use an out-of-state contract pharmacy -- Diamond Pharmacy Services. Among the on-site operations, two facilities share pharmacy and pharmacist services with the Iowa Department of Human Services (DHS) – CCF and MPCF. At the start of the evaluation there were a total of 9 pharmacist FTEs shared between IDOC and DHS for the on-site facilities. FDCF, in collaboration with NCCF, had one pharmacy/pharmacist (Ms. Shields) and since July 2009, is served by a contract pharmacist. IMCC Oakdale has its own pharmacy and is

the first stop for offenders upon entry into the system. A health assessment is done upon entry. The Diamond mail service arrangement has been in operation for 7 or 8 years.

Medical Records and Prescribing: The IDOC has an electronic medical record (Advanced Technologies Group, Des Moines, Offender Management Suite) included in the Iowa Corrections Offender Network (ICON). The entire medical record, including pharmacy data, is available in the system for the five on-site pharmacies. Prescribing by IDOC physicians and physician assistants occurs at each facility and the medical system allows computer prescriber order entry (CPOE). Discharge orders from medical clinic visits at UIHC (a primary IDOC provider) are considered recommendations to the institution physician. The University of Iowa Hospitals and Clinics (UIHC) provide telemedicine services to IDOC institutions and on-site tertiary care at UIHC for offenders.

Administrative Reporting: The Director of Pharmacy operations, Pharmacist Shields, reports to the Medical Service Director, Dr. Doel. Pharmacists and technicians in Des Moines Central Pharmacy report to the Director of Pharmacy. Pharmacists at each of the institutions report to the warden or superintendent, including the IMCC facility. Technicians at IMCC report to a pharmacist. Under a 'shared' agreement with IDOC, the Department of Human Services (DHS) pharmacists in two sites provide care to IDOC offenders but work for and report through the DHS system. Other pharmacy support personnel in institutions generally report to on-site nursing supervisors. In general it appears the Diamond Pharmacy liaison at each institution for the mail service activities is a nursing staff member.

Staffing: Due to the frequent IDOC changes and decisions about personnel occurring within the IDOC, while this evaluation was done, staffing of pharmacy related services was

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Staffing: Due to the frequent IDOC changes and decisions about personnel occurring within the IDOC, while this evaluation was done, staffing of pharmacy related services was

difficult to define. IDOC pharmacy employees are located at the Central Pharmacy in Des Moines and IMCC. Pharmacists at CCF and MPCF were under a collaborative contact with the Department of Human Services. FDCF and NCCF had a contract pharmacist (since Ms. Shields became Director). No pharmacy personnel were at ASP, ICIW, NCF.

The original plan for the Central Pharmacy was to have 3 pharmacists including one pharmacy director and a combination of assistants, clerks and certified technicians totaling four additional employees. The other IDOC pharmacy staffing was at IMCC Oakdale where at the time of this evaluation there were 1 pharmacist full time, 2 temporary pharmacists, 3 technicians and one clerk. Late in the evaluation process (April 2010) IMCC had two pharmacist vacancies and was recruiting pharmacists. A plan was in place to eventually have 2 full time pharmacists, one part time pharmacist, 3 technicians and 1 clerk at IMCC. ISP had a" pharmacy storekeeper". MPCF had 2 contracted DHS pharmacists for 32 hours each, one tech and one pharmacy assistant. CCF has contracted with DHS for two shared pharmacists -- one 20 hour pharmacist, one 15 hour pharmacist -- one relief pharmacist and one certified technician at 15 hours. (Some data come from IDOC list of health personnel).

Purchasing Pharmaceuticals: Four institutions (ICIW, ISP, NCF, ASP) receive their medications (both prescription and non-prescription) from Diamond Pharmacy Services (645 Kolter Drive, Indiana, PA 15701). This is accomplished through the use of fax prescription requests and express courier delivery to the institution. It was estimated that during 2009, approximately $5.4M was paid to Diamond Pharmacy Services to provide approximately 120,000 to 132,000 prescriptions per month. Itemized records were not provided. It was estimated by the evaluation team that the average offender receives three prescriptions per month at somewhere between $22.74 and $58.08 per facility (roughly

$37.50 overall) and prescriptions from Diamond Pharmacy Services at somewhere around $41 to $45 per prescription. IMCC and FDCF/NCCF use Novation as there Group Purchasing Organization and AmerisourceBergen as their primary vendor / wholesaler. We did not collect information from the DHS relative to how they manage their pharmacy operations. Offenders were seen by IDOC prescribers and generally received a 30 day supply or other lengths of therapy as appropriate. Drug costs in 2008 were $8.8M and >$9M in late 2009 with the final figure closer to $10M.

All state contracts for the IDOC go through the Iowa Department of Administrative Services (DAS) unit. The State purchases supplies from Minnesota Multi-state Contacting Alliance for Pharmacy (MMCAP) located in Minnesota. DAS staff help to review and create contracts and has worked with Novation (AmerisourceBergen or McKesson), MMCAP (AmerisourceBergen) and Diamond Pharmacy through competitive, transparent bid process. Diamond drug charges were AWP less 20% "brand" and AWP less 70% "generic" with no dispensing fee. Credit back is charge less $1.95 processing fee (except schedule II). The contract with Diamond had no auditing and was scheduled to end on April 1, 2010. The contract continues on a month to month basis at this time. Contracts with Novation and MMCAP do have audit provisions, but do not appear to be used. DAS evaluates pharmacy contracts through the end user. Invoices are paid through services at the IMCC, Oakdale, facility. Purchasing of items could be directed to Novation or MMCAP, as the institution chose. It was not clear whether DHS uses DAS for purchasing.

The view of the evaluation team is that this is a fragmented purchasing system. The purchasing system uses many different processes and systems resulting in inefficiencies and greater expenses.

Distribution: The distribution of pharmaceuticals in IDOC institutions is regulated by Iowa State Board of Pharmacy rules and regulations (Chapter 15). Distribution at operations with pharmacists was performed through secure procedures that appeared to fulfill regulation and rules. Depending on the situation, offenders were receiving medications via dispensing directly to the offender or to a nurse for administration or distribution. If able, they could receive a keep on person (KOP) or self carry labeled zip lock bag. Not all facilities use KOP. In facilities without pharmacists, distribution of medications is performed by the nursing staff. It was unclear who actually takes receipt of products delivered to institutions by Diamond Pharmacy. There are emergency plans for the provisional stock, per Iowa State Board regulations and arrangements are in place locally to receive quickly urgently required medications..

As with the purchasing system the view of the evaluation team is that the distribution of medications within the IDOC is fragmented and lacks a systematic operation.

Drug Therapy Management & Formulary: The Pharmacy and Therapeutics Health Service Committee meets quarterly and consists of all physicians, all pharmacists, and nursing. Chaired by the Medical Service Director, it reviews policies once per year and discusses formulary and protocols. There are sets of protocols monitored by this group that appear to be of high quality. No systematic, in-depth population level analyses are currently being performed. Formulary and protocol management has great potential for reduction in overall costs. One focus for the IDOC has been the category of psychotherapeutic agents. Also, a review of acne treatments has reduced costs. At the time of this report an IDOC open formulary existed with variability from facility to facility.

There had been some discussion about stabilizing the formulary across institutions. The notion was shared that eventually IDOC would like to share a formulary with all local jails to help manage the number of changes once an individual reaches the IDOC.

Assessment of formulary management indicated that there are some systematic processes in place to manage pharmaceuticals and there is a strong desire to enhance formulary compliance. However, the system does not take advantage of many opportunities available through the use of formulary management. Significant cost savings could be realized through increased formulary management.

Clinical Pharmacist Services: Minimal clinical pharmacist services were being delivered in IDOC institutions at the time of this report. There was some indication that there may be clinical pharmacy assessment via order entry review pursuant to distribution of the medications. Such clinical assessment appears to be limited. The Director of Pharmacy has indicated a desire to significantly upgrade clinical pharmacy services.

General Observations of the Current System: The medication management system utilized by the IDOC is based on processes put into place over a long period of time. The integration of the system across all IDOC facilities and the utilization of newer medication management system designs is not optimal. Purchasing and distribution systems are fragmented and would benefit from system-wide coordination. Formulary management and clinical services are not utilized in manner that will optimize outcomes related to safe and clinically effective care. Combined there are significant opportunities to redesign the medication system to create cost efficient medication use while providing appropriate health care.

V. IOWA DEPARTMENT OF CORRECTIONS PHARMACY TRANSFORMATION IN PLACE PRIOR TO THIS EVALUATION

The IDOC was in the process of implementing a redesign of pharmacy services at the time of this evaluation. The transformation was based on the recommendation of at least two prior consultant reports. These recommendations directed IDOC on the current path of eliminating the mail services of Diamond Pharmacy Services and centralizing pharmacy services with one or two in-house pharmacy operations. Several pharmacy changes were in process during the evaluation review and it was clearly a dynamic time for decisions due to new information about optimal pharmacy operations and budget reductions that created economic challenges. One goal being addressed by the Director of Pharmacy was to standardize pharmacy services across all facilities as much as possible – standardized purchasing, packaging, distribution, formulary, policies and procedures.

A second goal was to create a new design for pharmacy services with a central pharmacy concept. This included two major steps. The first was to establish a central pharmacy operation in Des Moines. Initially, it was proposed that the IDOC would divide their institutions into two regional distribution areas (i.e., East and West). IMCC would provide pharmacy service to IMCC, ASP, MPCF and ISP. A new Des Moines central pharmacy would provide pharmacy service to NCF, CCF, ICIW, FDCF, NCCF. The Des Moines central pharmacy would serve as the main pharmacy for IDOC. The dual centralization decision was in flux at the time of this review. The alternative consideration was to have one central pharmacy provide medications for all sites except IMCC.

In establishing the Des Moines centralized pharmacy, a major goal was to discontinue the Diamond Pharmacy Services contract, initially slated for December 2009, but delayed at the time of this report, and bring all medication distribution back to the State. This would result in the standardization of purchasing to optimize pricing, distribution and the overall medication inventory of Iowa Corrections Offenders Network (ICON) institutions.

The new Central Pharmacy was proposed to be staffed by 2 certified technicians (to be hired), 2 clerks (from NCF), 2 pharmacists (newly hired) and 1 director (Ms. Shields). It was also indicated that there may be help from pharmacy students on educational experiential rotations. A new facility (the old Mercy Capitol Hospital building in Des Moines) acquired in December, 2009, is being redesigned and stocked and will be operational in the late spring of 2010. The site will prepare oral liquids and solids, inhalers, topical, injections, etc. All sterile products will be prepared at IMCC Oakdale -- the only institution set up to appropriately manage this type of therapy. The central pharmacy expects to prepare about 500 prescriptions per day, both prescription and non-prescription medication and use priority express courier to deliver to sites. Expectations were that there would be 15,000 prescriptions per month once the first 6 institutions had services provided by the central pharmacy. The plan is to have one institution a week transferred from Diamond Pharmacy to the central pharmacy starting March 1, 2010 (this appears to be delayed at the time of this report). Once those institutions have been reasonably integrated, two other institutions (FDCF and NCCF) will be added. Eventually, the plan at the time of this report is to add institutions until all facilities except IMCC are under the central pharmacy. Operations of the central pharmacy were set to be 6am to 6pm M-F and 8am to 12pm Sat.

Orders will be acquired through the electronic medical record with only supplementary orders by fax if needed. All sites have "provisional stock." All institutions will be converted to a 30-day punch card format similar to what is being used by Diamond-service institutions. Dispensing less than 30 days will use a similar format.

VI. ANALYSIS AND RECOMMENDATIONS

The evaluation team learned early in the process that the 'usual and customary' statistical data collected by administrative units on pharmacy operations was not systematically collected by IDOC. For example, basic information such as opening and closing inventories and recording of the expenses utilizing Diamond Pharmacy Services did not occur. Total number of orders was provided but it is not possible to determine how many of those orders were for 30 days vs. one dose. This lack of systematic pharmacy data collection on a month to month basis does not allow for meaningful comparisons over time. In short, there is insufficient data being collected and recorded on a regular basis to allow for systematic analysis and monitoring. The system collects some clinical medication data on offenders, but this is limited to those facilities not serviced by Diamond Pharmacy Services. Actual drug costs, complete prescription volume and case mix at each setting are some of the data required. This made it difficult, and in many ways impossible, to evaluate operational efficiencies such as the differences in the cost of Diamond Pharmacy Services vs. in-house pharmacy operations. The team is aware that with a centralized system these data can be systematically collected in the future. Some data can be extracted now, but trend data has not been kept.

The evaluation team was not given information or the task to evaluate whether this course of action was advisable. Given the current set of administrative decisions, the goal of the evaluation team was to optimize the outcome of the above course of action.

Analyses and recommendations focused on the four central areas of the evaluation -- purchasing, distribution, structure / staffing, and clinical pharmacy services.

Purchasing:

The evaluation team examined the ways in which pharmaceuticals could be acquired in a cost-effective manner. The current process of pharmaceutical acquisition was examined, as well as all available means of materials acquisition not presently utilized by the IDOC. It was difficult to fully evaluate the effectiveness of the current purchasing system. It was fragmented with variation across the different IDOC institutions. Historical documentation of the traditional elements of purchasing effectiveness was limited. Additionally, because there was a current active plan to remove the contracted provider, Diamond Pharmacy Services, and begin a central pharmacy distribution system, the purchasing recommendations focused on opportunities that would enhance a centralized system.

The limited data led the evaluation team to conclude that efficiencies could be gained by restructuring the current system. To address the fragmented purchasing system, the **IDOC should work to establish a centralized purchasing system for all nine correctional institutional facilities.** The first step in such a process would be to determine the most favorable "class of trade" (most favorable pricing) available to IDOC.

Moving to a centralized purchasing system allows the IDOC to secure greater discounts on drug purchase. **DAS should immediately conduct an RFP process to secure services from a national group purchasing organization (GPO),** such as Premier, Novation, MMCAP or others. The effective use of a GPO for all facilities will enhance efficiencies of acquisition and maximize savings in the cost of pharmaceuticals. Additionally, as a part of the required contract, the centralized pharmacy process will establish and systematically review data to periodically (at least quarterly) evaluate the system. In preparation for a

selection process, a "market basket analysis" of the purchase of prescription and non-prescription drugs across the competing GPO systems should be performed. Any contract should be systematically evaluated on a quarterly basis.

The purchasing of pharmaceuticals is a complex process with many unusual elements not found in other types of contracting. To capitalize on expertise available to IDOC and Administrative Services related to the purchase of pharmaceuticals, **the State should secure, through contract, an expert in pharmacy purchasing systems to assist the Administrative Services and IDOC in the contract acquisition (selection and related processes) and ongoing contract evaluations.**

Another potential cost benefit to purchasing may be achieved through the Iowa Prescription Drug Corporation (IPDC). The IPDC, though a program initiated and funded by the State of Iowa, acquires and redistributes unused medications. It is a state funded nonprofit agency. IPDC primarily serves Iowa by serving as a repository for unused medications. The drugs collected by IPDC are obtained from various long term care settings when a patient has received a medication order and the drug is no longer needed and cannot be returned to the dispensing pharmacy. IPDC currently redistributes these unused medications to a small number of community health centers and free health clinics in Iowa. There may be cases in which high cost medications may create cost effective alternatives for resident offenders, offenders at the time of release and/or use for offenders post release. **IDOC should explore cost savings opportunities associated with the IPDC medication redistribution program and the Iowa State Board of Pharmacy to create a system of repackaging and redistribution of unused medications, both for inmates and discharged offenders.**

One important program evaluated by the team was the potential access of medications through the federal 340B pricing program. Medications through this system have been seen to save as much as 20-50% in drug costs. The key to using 340B pricing is that care must be provided by a legislated 340B covered entity. In the State of Iowa prison system, offenders receive care through the IDOC's own health care provider program. Under this structure, IDOC does not qualify as a covered entity. **IDOC should monitor changes in the 340B program and changes in the delivery of care to IDOC offenders to determine if changes in either system will allow the use of 340B pricing in the future. Iowa legislators are urged to encourage federal officials to expand the federal 340B program to include state correction facilities.**

Distribution:

Once pharmaceuticals are purchased there needs to be a safe and efficient system that distributes medications to the offenders. IDOC has committed itself to the establishment of a central pharmacy distribution program. **A phased-in centralized distribution system for all nine correctional institutions, with special consideration for IMCC, should be pursued with the highest priority in order to maximize efficiencies.** Procedures for controlled, monitored distribution of pharmaceuticals from the central pharmacy to the institution and to the end user should be created. Once the new central distribution system is established, the **use of provisional stock at each facility should be reevaluated** to assure proper access while at the same time creating savings through decreased inventories. And to assure proper and timely access to needed pharmaceuticals, **each institution should have a standardized, rapid medication acquisition system in place** to assure that there are no gaps in necessary care.

Structure/ Staffing:

The IDOC has been working to improve the organizational structure of pharmacy services. **The Director of Pharmacy should be clearly established as a full-time administrative role** ensuring time to plan and activate initiatives that continue to strengthen pharmacy services. Missed opportunities for ensuring efficiencies and cost savings are presently occurring because the Director of Pharmacy is also involved in the day to day distribution activities.

Operationally the central pharmacy should optimize technology and automation. With technology comes better efficiencies and systems can be created to optimize safety. Most of the distribution processes can be performed by certified pharmacy technicians with appropriate pharmacist oversight. It was reported that the central pharmacy will dispense an average of 500 prescriptions per day. Current staffing does not provide adequate support for a centralized purchasing and distribution system for all nine correctional facilities. **IDOC should initiate staffing at the central pharmacy with 2 FTE pharmacists, 3-5 certified technicians, in addition to a director of pharmacy.** The evaluation team noted that there is a significant disparity between IDOC salaries for pharmacists and technicians in the IDOC system and the private sector. **The State should reconsider the pharmacist classifications it uses for IDOC and re-evaluate both the pharmacist and technician salary categories.** While pharmacy students may be utilized, they should not e entered into the staffing equation because their time at the setting is primarily educational.

One major area to consider is the collection and monitoring of data related to the entire pharmacy services operation. The evaluation team found the data on prescription

purchase, distribution and usage to be incomplete and data collection to be fragmented. **A comprehensive system of data collection and monitoring should be established by the Director of Pharmacy.**

Clinical Pharmacy Services:

There is little evidence that clinical pharmacy services are currently utilized to optimize care and minimize costs. It has been well established that clinical pharmacy services provide better outcomes while reducing costs. Clinical pharmacy services pay for themselves through the savings created by stronger formulary compliance and optimal medication use. The current system lacks contemporary clinical services that optimize care and minimize cost. **The IDOC should establish a clinical pharmacy program to complete its transformation to a contemporary health care system.** Such services could be secured via contract.

Clinical pharmacists could work on enhancing formulary management[3]creating treatment protocols, and patient monitoring similar to institutional pharmacy systems. Offenders should be monitored via their medical records on a recurring basis. Institutions should be visited on a regular basis to provide pharmacotherapy consultations for physicians and counsel offenders. Clinical pharmacists should do case reviews, focused drug therapy management reviews, compliance monitoring and targeted medication reviews (i.e., high cost, high use, high risk, high abuse). Comprehensive medication review programs work well. A systematic monitoring of the entire offender population, similar to what occurs for beneficiaries in large insured populations, will create a system that can minimize medication costs and optimize health outcomes. Clinical pharmacist educational

[3] In an interview with pharmacists working with the Texas Corrections system, it was noted formulary maintenance alone paid for the extensive clinical programs they had in place.

programming for IDOC employees and disease and medication management programs for offenders would yield great gains for the program.

One clinical area where there appears to be some quality effort is the management of clinical protocols. This process is currently partially developed and there is good physician leadership. However, there should be comprehensive analysis, development, implementation and management of formulary services. This particular activity alone serves as a major cost savings for the Texas Correctional System, and accounts for savings much greater than the costs of clinical services for all other programmatic areas.

ADDITIONAL RECOMMENDATIONS

A central purchasing process will help alleviate the fragmented system, lead to favorable pricing conditions and create purchasing efficiencies. Because there is a similar need at both IDOC and DHS and because of the overlap of these two systems of State supported care, **the State should align and integrate purchasing and distribution of prescription and related products for IDOC and DHS.**_DHS operates seven mental health and ICF/MR facilities in various parts of the state. Two DHS facilities jointly house IDOC facilities. IDOC and DHS have a history of sharing administrative and dietary services at these locations, most notably, Clarinda and Mt Pleasant. Because of the changes to the IDOC system, there will need to be a resolution of what will occur in settings where IDOC offenders are provided care by DHS employees (contracted to IDOC). IDOC and DHS administrators are urged to correct the fragmented approach in pharmacy services.

Two initial actions should be taken by the IDOC to make substantial strides in developing pharmacy services that create optimal health outcomes and greatly reduce

costs. The first is that the **State should secure a consultant to assist the IDOC with the preparation and selection of a pharmacy group purchasing organization that will help manage the acquisition of pharmaceuticals**. Second the **State should impanel an expert advisory committee to offer immediate and on-going advice regarding the complexities of purchasing, distribution and clinical management of pharmaceuticals for large populations.** This panel can provide IDOC with a broad set of experiences, professional knowledge and pharmacy business acumen. An early role of the expert panel would be to establish systematic data collection on all aspects of the pharmacy operation to allow both trend analyses and evaluation of pharmacy programs. Members of the evaluation team are willing to advise the IDOC in the selection of the consultant and advisory panel.

VII. CONCLUSIONS

To optimize medication-replaced care and where appropriate reduce medication costs, the evaluation team examined options for the purchasing pharmaceuticals, ensuring a quality based medication distribution system, ensuring adequate organization and appropriate levels of pharmacy staffing, and exploring the health outcome and economic benefits of clinical pharmacy services.

Recommendations are as follows:

- **The IDOC should work to establish a centralized purchasing system for all nine correctional institutional facilities.**
- **DAS should immediately conduct an RFP process to secure services from a national group purchasing organization (GPO).**
- **IDOC should explore cost savings opportunities associated with the IPDC medication redistribution program and the Iowa State Board of Pharmacy to create a system of repackaging and redistribution of unused medications, both for inmates and discharged offenders.**
- **IDOC should monitor changes in the 340B program and changes in the delivery of care to IDOC offenders to determine if changes in either system will allow the use of 340B pricing in the future.**
- **Iowa legislators are urged to encourage federal officials to expand the federal 340B program to include state correction facilities.**
- **A phased-in centralized distribution system for all nine correctional institutions, with special consideration for IMCC, should be pursued with the highest priority in order to maximize efficiencies.**

- The use of provisional stock at each facility should be reevaluated.
- Each IDOC institution should have a standardized, rapid medication acquisition system in place to assure that there are no gaps in necessary care.
- The Director of Pharmacy should be clearly established as a full-time administrative role.
- IDOC should initiate staffing at the central pharmacy with 2 FTE pharmacists, 3-5 certified technicians, in addition to a director of pharmacy.
- The State should reconsider the pharmacist classifications it uses for IDOC and re-evaluate both the pharmacist and technician salary categories.
- A comprehensive system of data collection and monitoring should be established by the Director of Pharmacy.
- The IDOC should establish a clinical pharmacy program to complete its transformation to a contemporary health care system.
- The State should align and integrate purchasing and distribution of prescription and related products for IDOC and DHS.
- The State should secure a consultant to assist the IDOC with the preparation and selection of a pharmacy group purchasing organization that will help manage the acquisition of pharmaceuticals.
- The State should impanel an expert advisory committee to offer immediate and on-going advice_regarding the complexities of purchasing, distribution and clinical management of pharmaceuticals for large populations.

VIII. APPENDIX

- List of the team:
- Evaluation Team Estimation of Average Prescription Costs per Facility.
- Minutes of the evaluation team meetings

Iowa Department of Corrections Pharmacy Evaluation Team

Paul Abramowitz, PharmD, FASHP

Paul Abramowitz is currently the Chief Pharmacy Officer of the University of Iowa Hospitals and Clinics (UIHC) in addition to serving as the Hospital Associate Director for professional services at UIHC. His roles at the University of Iowa College of Pharmacy include Assistant Dean and tenured professor in the Department of Pharmacy Practice and Science. Dr. Abramowitz earned his B.S. in Pharmacy from the University of Toledo in 1977. He received his Doctor of Pharmacy from the University of Michigan in 1979 and went on to complete a residency in hospital pharmacy from the University of Michigan Hospital the same year.

Dr. Abramowitz became a Fellow of the American Society of Health-System Pharmacists (ASHP) in 1996. He has also served as a past president, board member and treasurer of ASHP. In 2009, he received the distinguished Harvey A Whitney Lecture Award from ASHP and was awarded the Health-System Pharmacist of the Year Award by the Iowa Pharmacy Association. He has authored over 140 scholarly publications and presentations.

Kate Gainer, PharmD

Kate Gainer is the Vice President of Professional Affairs for the Iowa Pharmacy Association - a position she has held since 2005. Dr. Gainer received her Doctor of Pharmacy from the University of Wisconsin-Madison School of Pharmacy in 2004 before going on to complete a PGY1 residency with emphasis in community pharmacy practice.

Dr. Gainer's career with the Iowa Pharmacy Association has been focused on cultivating professionalism and policy development among Iowa's pharmacists, pharmacy students and pharmacy technicians and also on seeking meaningful opportunities for pharmacists to better the health of Iowans through their professional services. She regularly precepts students from both of Iowa's colleges of pharmacy and delivers presentations on various topics of interest, such as professionalism, value of pharmacist services, continuous quality improvement, pharmacy-based immunizations, medication disposal and health literacy .

James Miller, RPh, MBA

James Miller is currently co-owner of Miller-Purcell, Inc., a pharmacy management company. He is also an adjunct professor for the University of Iowa College of Pharmacy. Mr. Miller's previous pharmacy experience has included roles as an independent pharmacy

owner, community pharmacy director, hospital pharmacy director, and pharmacy supply business founder. He earned his B.S. in Pharmacy from the University of Iowa College of Pharmacy in 1971 and later received his MBA from the University of Dubuque in 2004.

Mr. Miller is an active member of the professional pharmacy community. He is involved in the American Pharmacists Association and the American Society of Consultant Pharmacists, of which he was named a Fellow in 1994. He is a past president of the Iowa Pharmacy Association and a previous winner of its Robert J. Gibbs Distinguished Pharmacist Award. Mr. Miller is also the Chairperson of the Iowa Council on Human Services, a position he has held since his appointment by Governor Vilsack in 2001.

Steven Nelson, RPh, MS

Steven Nelson serves as Interim Director for the Department of Pharmaceutical Care at The University of Iowa Hospitals and Clinics. Additionally, Mr. Nelson is an adjunct associate professor for the University of Iowa College of Pharmacy. He received is B.S. in Pharmacy in 1971 from the North Dakota State University College of Pharmacy. Mr. Nelson later earned a Master of Science in Hospital Pharmacy from the same institution in 1974 while completing a two-year residency program at the Veterans Administration Center in Fargo, North Dakota.

Mr. Nelson is an active member of both the Iowa Pharmacy Association and the American Society of Health System Pharmacists. He has authored numerous scholarly publications and presentations largely concerning health care patient safety and the role performance and quality improvement of pharmacy services can play in achieving greater patient safety.

CoraLynn Trewet, PharmD, MS

CoraLynn Trewet is an Assistant Professor (Clinical) at the University of Iowa College of Pharmacy. Her clinical practice is located at Broadlawns Family Medical Center in Des Moines, IA. She also serves as Director of Continuing Education for the University of Iowa College of Pharmacy and the Collaborative Education Institute. Dr. Trewet received her Doctor of Pharmacy from Drake University in 2003. She went on to complete a pharmacy practice management residency and receive a Master of Science in Pharmacy Practice from the University of Kansas in 2005.

Dr. Trewet is an active member of multiple professional pharmacy organizations including the American pharmacists Association, the American Society of Health-System Pharmacists, the American College of Clinical Pharmacists, National Lipid Association, and the Iowa Pharmacy Association. She was recently named a Fellow of the National Lipid Association and has been previously honored as the University of Iowa College of Pharmacy's Preceptor of the Year. She has authored over 50 publications and presentations on various topics both professional and clinical in nature.

Bernard Sorofman, PhD

Bernard Sorofman is Professor and Chair of the Department of Pharmacy Practice and Science and Executive Associate Dean at The University of Iowa College of Pharmacy. He was educated in Anthropology at the University of Nevada, Las Vegas and Pharmacy at the University of Oklahoma. He received his doctoral education in Social & Administrative Pharmacy at the University of Minnesota in 1984.

Dr. Sorofman is a past-president of the Academy of Pharmaceutical Research and Science (APRS) of the American Pharmaceutical Association, which included a one year ex

officio term as a member of the APhA Board of Trustees. His research concerns the interrelationship of patient and pharmacist behavior, as well as the individual health seeking behaviors of patients and the roles of pharmacists. He is the author of over 150 scholarly publications and presentations.

Thomas R. Temple, RPh, MS

Thomas R. Temple is the Executive Vice President and Chief Executive Officer of the Iowa Pharmacy Association (IPA), a position he has held since 1980. Mr. Temple received a B.S. degree in Biology from Northern Illinois University (1971), a B.S. degree in Pharmacy from the University of Illinois (1975) and a M.S. degree in Pharmacy Administration from the University of Iowa (1977). In addition to serving as chief executive officer of IPA, Mr. Temple also serves as CEO of the Iowa Pharmacy Foundation (IPF), Pharmacy Network of Iowa (PNI), the Iowa Pharmacy Recovery Network IPRN), and the Collaborative Education Institute (CEI) -- four subsidiary and related corporations of the Iowa Pharmacy Association.

Mr. Temple is a member of several professional organizations including the IPA, the American Pharmacists Association (APhA), the National Alliance of State Pharmacy Associations (NASPA) for which he is a past president, and the American Society of Association Executives (ASAE). Mr. Temple's leadership has been recognized through receipt of several awards including APhA's Gloria Neimeyer-Francke Leadership Mentor Award, the Medic Alert Outstanding Service Award, the University of Illinois' College of Pharmacy Alumnus of the Year Award, the University of Iowa College of Pharmacy Alumnus of the Year Award and the University of Iowa Distinguished Alumni Award for Service.

Brian Wegmann

Brian Wegmann's joined the NuCara Pharmacy team in 1991, as an after school front-end clerk for NuCara Pharmacy in Dyersville, Iowa. From 1993-1996, Brian worked as a technician at NuCara's pharmacy in Waterloo while attending college. Following college, Brian's role in NuCara expanded as he assisted the Director of Operations, eventually becoming Assistant Operations Manager in 1997. In 2000, Brian was named Director of Operations, and in 2004 Brian was promoted to Executive VicePresident of NuCara. As EVP, Brian was responsible for the day-to-day operations of 11 pharmacies in Iowa, one in Illinois and one in Austin, Texas, including third-party contracts, financial affairs, strategic planning, and issues related to the companies' 145 employees. In 2006, Brian was named Chief Executive Officer of NuCara and became a shareholder in the company. Today Brian continues to serve in this capacity and is working diligently to transform NuCara into a more complete health care company, centered around the goal of keeping NuCara's patients independent, active and healthy.

Ex Officio Member from the Department of Corrections

Susan Shields, RPh

Susan Shields recently stepped into the newly formed position of { Pharmacy Director} for the Iowa Department of Corrections. Prior to this, Ms. Shields served as

Pharmacist-in-Charge of the Fort Dodge Correctional Facility. She has previous work experience in a variety of pharmacy settings, including health-system, community, and long-term care pharmacy. She received a B.S. in Pharmacy and a B.S. in Biology from Drake University in 1983.

Ms. Shields currently oversees the pharmacy operations of nine correctional facilities in the state of Iowa. She has assisted in the development of the pharmacy software program currently in use by the Iowa Department of Corrections and is currently spearheading many new projects aimed at improving the efficiency and effectiveness of pharmacy services in Iowa's correctional facilities.

699 **EVALUATION TEAM ESTIMATION OF AVERAGE PRESCRIPTION COSTS PER FACILITY.**

	ASP	CCF	FDCF	ICIW	IMCC	ISP	MPCF	NCF	NCCF	Total
Inmate Census	1150.67	990.3	1148.87	552.67	998.02	1090.67	1014.08	1171.33	488.68	8605.29
Total Rx Orders	26267	18712	17334	28150	48018	32370	13155	35353	6655	226014
% Non Formulary Rx	11.20	6.60	4.68	12.72	7.76	13.17	7.32	10.98	6.03	8.94
# RX per Inmate	1.96	2.85	1.51	4.53	3.66	3.58	2.24	2.59	1.75	
	$	$	$	$	$	$	$	$	$	$
Net Costs	1,005,708.59	1,051,948.61	599,556.77	971,268.11	1,091,813.45	1,440,161.53	764,021.91	1,263,202.72	287,481.38	8,475,163.07
Avg RX Cost	$ 38.29	$ 56.22	$ 34.59	$ 34.50	$ 22.74	$ 44.49	$ 58.08	$ 35.73	$ 43.20	$ 37.50

Iowa Department of Corrections
Pharmacy Evaluation Project
Meeting #1 - September 17, 2009
Des Moines, Iowa
10am to 230pm

Attendees: Abramowitz, Paul; Feldman; Josh (by telephone); Gainer, Kate; Miller, James; Nelson, Steve; Shields, Susan; Sorofman, Bernard; Temple, Thomas R.; Trewet, CoraLynn; Wegmann, Brian;

Introductions: Brief introductions of the evaluation team (see Attendee list above).

Discussion of Purpose: At the request of the Attorney General's office and the Iowa Department of Corrections (Director Baldwin), a group was formed to assist in the evaluation of pharmacy services for the Department of Corrections (DOC) institutions.

Current Status: The Iowa DOC, following recommendations by the Durrant Consulting Group, determined the need to create a centralized pharmacy operation for their facilities. Susan Shields was appointed the first Director of Pharmacy Services on 1 July 2009. Briefly, the decision was made in order to create economic and organizational efficiencies while assuring appropriate medication related health care to offenders in the DOC system.

Previous DOC consultant: A brief discussion reviewed the previous consultant activity by the Durrant Consulting Group (2007) with few details. The consultants looked at many aspects of the DOC system, one of which was pharmacy and included a phone conference with the University of Iowa Hospital and Clinics (UIHC) Department of Pharmaceutical Care administration.

DOC Facilities: The DOC operates 9 "Institution" facilities: Clarinda Correctional Facility, CCF, Clarinda; Mt Pleasant Correctional Facility, MPCF, Mt Pleasant; Ft. Dodge Correctional Facility, FDCF, Fort Dodge; North Central Correctional Facility, NCCF, Rockwell City; Iowa Correctional Institution for Women, ICIW, Mitchellville, Iowa Medical and Classification Center, IMCC, Oakdale; Iowa State Penitentiary, ISP, Ft. Madison; Newton Correctional Facility, NCF, Newton; Anamosa State Penitentiary, ASP, Anamosa. Five facilities have on-site operations (CCF, MPCF, FDCF, NCCF, IMCC) and four do not (ICIW, ISP, NCF, ASP), but use an out of state contract pharmacy, Diamond Pharmacy Services. Of the on-site operations, two facilities share pharmacy and pharmacist services with the Iowa Department of Human Services – CCF and MPCF. There are a total of 9 pharmacist FTEs for the on-site facilities. FDCF, in collaboration with NCCF, had one pharmacy (Ms. Shields) and is now served by a local contract pharmacist. Oakdale has its own pharmacy and is the

first stop for offenders upon entry into the system. A health assessment is done upon entry. The Diamond mail service arrangement has been in operations for 7 or 8 years.

DOC Pharmacy Transformation: The DOC is looking for a total redesign of pharmacy services. One goal is to standardize across all facilities as much as possible – standardized packaging, standardized formulary, standardized policies and procedures.

Currently Diamond costs about $450,000 per month for approximately 10,000 to 11,000 prescriptions per month. Itemized records are not provided. It is estimated that the average offender gets 3 prescriptions per month at about $41 to $45 per prescription. On-site pharmacies use Novation --- AmerisourceBergen. Offenders are seen by DOC prescribers and generally receive a 30 day supply, although they may get 7, 14, and 21 day supplies. If able, they get a keep on person (KOP) or self carry labeled zip lock bag. Not all facilities use KOP. Drug costs in 2008 were $8.8M and >$9M in 2009 (may be closer to $10M).

The DOC has an electronic medical record (Advanced Technologies Group, Des Moines, Offender Management Suite). Formulary review does occur with minimal, but increasing, formulary control. A formulary group meets quarterly. No population level analyses are being performed presently. Patient data are available for the 5 on-site pharmacies. Prescribing by physician assistants and physicians occurs at each facility. Discharge orders from medical clinic visits at UIHC (A primary DOC provider) are considered recommendations. UIHC has telemedicine facilities to DOC institutions.

A new design for pharmacy services will have a central pharmacy concept. They will use a 30 day 'bingo' card distribution. All sites have "provisional stock." Question about 'returns' but we did not have data on this.

All state contracts for the DOC go through the Iowa Administrative Services unit. The State buys supplies from Minnesota Multi-state Contacting Alliance for Pharmacy (MMCAP) out of Minnesota.

Staffing: IDOC employees for pharmacy are at the Central pharmacy and IMCC. Pharmacists are contracted at CCF and MPCF with the Department of Human Services. FDCF and NCCF have a local contract pharmacist (since Ms. Shields became Director). No pharmacy personnel at ASP, ICIW, NCF. Oakdale staffing: 3 full time pharmacists listed on web with 2 part time, 2 full time techs and one part time, one pharmacy assistant with another part time and one clerk full time. ISP has a pharmacy storekeeper. MPCF has 2 contracted DHS pharmacists for 32 hours each, one tech and one pharmacy assistant. CCF has contacted with DHS for 1 full time pharmacist, one 20 hour pharmacist, one 15 hour pharmacist, one relief pharmacist and one Certified tech at 15 hours. (Data come from IDOC list of health personnel).

New Central Pharmacy Plan: The IDOC will create a central pharmacy with an Oakdale satellite. Central will be staffed by 3 certified techs, 1 clerk, 2 pharmacists and 1 director (Shields). A new facility (old Mercy building) should be operational by 1 January 2010. The site will do preparations for oral liquids and solids, inhalers, topical, injections, etc. All sterile products will be at IMC C Oakdale. Expect to do about 500 Prescriptions per day, including OTC. Priority express courier will deliver to sites.

IDOC Administrative Organization: Medical director: Harbans S. Doel, DO, PHD; Mental health Director: Bruce Sieleni, MD; Pharmacy Director, Susan Shields. The Pharmacy and Therapeutics Health Service meets quarterly and consists of all physicians, all pharmacists, and nursing. Chaired by the Medical Service Director it reviews policies once per year and discusses formulary and protocols. This would be the group to approve collaborative practice protocols.

Reporting: The director of pharmacy operations reports to the Medical Service Director; pharmacists in Des Moines report to Director of Pharmacy; Pharmacists at institutions report to warden or superintendent; DHS pharmacists work under a 'shared' agreement with IDOC and report through the DHS system; technicians in Des Moines report to Director of Pharmacy; Technicians in facilities report to nursing supervisors; Diamond pharmacy liaison is nursing at the institution.

Purchasing: WE must compare Novation and MMCAP prices. Market basket analysis. What are rebates? Plan a discussion with Administrative Services. What is DOC "class in trade"? Request data such as prescription volume, number of doses and non-drug expense.

Distribution: Brief conversation. Question about central pharmacy operations. More next time.

Notes:

- Drake students writing patient education library for offenders.
- DMACC will use central pharmacy site for technician training.
- 30 day supply to offenders at discharge. No follow-up
- WE must address 340B program
- Bar code technology not likely to be useful for a few years at the institutions.
- Diamond knows about plan:

Iowa Department of Corrections
Pharmacy Evaluation Project
Meeting #2 - October 6, 2009
Oakdale, Iowa
10am to 11am

Attendees: Abramowitz, Paul; Gainer, Kate; Miller, James; Nelson, Steve; Shields, Susan; Temple, Thomas R.; Trewet, CoraLynn; Wegmann, Brian;

Tour of facility

Iowa Department of Corrections
Pharmacy Evaluation Project
Meeting #3 - October 28, 2009
Des Monies, Iowa
10am to 2pm

Attendees: Abramowitz, Paul; Gainer, Kate; Miller, James; Nelson, Steve; Shields, Susan; Sorofman, Bernard; Temple, Thomas R.; Trewet, CoraLynn; Wegmann, Brian;

Guests: Harbans S. Deol, DO, PHD, Director of Medical Services IDOC, Jeanette Chupp, Iowa Dept Administrative Services, Kenneth Paulsen, Iowa Department of Administrative Services.

Observations at the Oakdale Visit. Meeting #2.

340B: The use of low cost mediations through the 340B program is of interest to some legislators. Medications have been seen to be as much or more than 35% cheaper than Medicaid programs through this system. Vermont, Maine, Texas and West Virginia are using 340B in their corrections system. The key to using 340B is that care must be provided by a legislated 340B covered entity. In the covered states, care is provide through either a specific covered hospital or a federally qualified health center. In Iowa, the care offenders receive is through the IDOC's own health care provider program. Therefore, the IDOC does not qualify under the current care structure. UIHC have two experts on 340B – Trisha Smith and Don Hansen.

Formulary: Formulary management has great potential for reduction in overall costs. One focus already for the DOC are the psychotherapeutic agents. Also, a review of acne treatments had reduced costs. Formulary related questions: How big is each facility inventory (provisional stock)? What is the general prescribing proportion? What will be costs savings due to Diamond shift to a Central Pharmacy? How much can be saved with shift to generics? A market analysis is needed. Note current data on prescriptions does not give the information on how many days that prescription is covering (7, 14, 21, 30). Trend and population information analyses would assist in improving cost management and quality care. Right now each facility has a different formulary and consolidating the formulary to hold stable for each institution would be beneficial. Eventually, there is a vision to share a formulary with all local jails to help manage the number of changes once an individual reaches the DOC. All protocols and follow up for formularies goes through the Pharmacy and Therapeutics committee.

Discussion with Iowa Department of Administrative Services: Jean Chupp and Ken Paulson. DOC must go through the Department of Administrative Services. DHS does not

have to go through them. Pharmacy is defined as a service. Administrative Services (AS) help to review and create contracts. AS has worked with Novation (AmerisourceBergen or McKesson), MMCAP (AmerisourceBergen) and Diamond Pharmacy through competitive bids. Diamond has an "AWP less %" amount (cost minus 1.27%). AS does competitive transparent bidding. The DOC uses its contract for Novation through the UIHC connection. Diamond is AWP less 20% brand and AWP less 70% generic with no dispensing fee. Credit back is charge less $1.95 processing fee (except schedule II). Contract with Diamond has no auditing, contracts with Novation and MMCAP do. AS evaluates contracts through the end user. Invoices are paid for DOC through Oakdale. Purchasing can be directed to Novation or MMCAP.

DHS Contracts need to be discussed with DHS. DHS pharmaceutical audit person is Brad Horn.

Staffing levels: The team discussed clinical pharmacist roles and the need to shift general preparation of prescriptions to the technicians. A topic for later will be how to design a clinical pharmacist program.

Discussion Questions:

- What would be the ideal pharmacist job description?
- What contracts are operational now?
- What is the current inventory at each institution?
- What is pharmacy role in aggregate DUR?
- What is the best way to deliver clinical services?

Draft Outline of team report:

Intro
Charge
Executive Summary
Review of Current "pharmacy" structure, facilities
    How Pharmacists are employed / utilized
    Purchasing, etc
Review of Current Health System structure as it applies to offenders receiving drugs
    Physicians
    Hospitals
    Affiliation with UIHC and other hospitals
Review of current Purchasing
Review of current Distribution
Reivew of current Drug therapy management, medication safety
Overview of tentative plans to change and active changes going on
    Release Diamond; new facility, new purchasing, new distribution, new drug therapy management
Recommendations

889 Structure of practice
890 Where pharmacists report, etc
891 Acquisition / purchasing
892 Distribution
893 Cover 340b
894 Drug therapy management
895 Conclusions
896 List of the team

Iowa Department of Corrections
Pharmacy Evaluation Project
Meeting #4 - November 24, 2009
Des Monies, Iowa
10am to 1pm

Attendees: Abramowitz, Paul; Gainer, Kate; Miller, James; Shields, Susan; Sorofman, Bernard; Temple, Thomas R.; Trewet, CoraLynn; Wegmann, Brian;

Guest: Bill Roach, Attorney General's Office

Updates from Susan Shields:

- Mercy building vacated and taken over by Central pharmacy. Diagrams done.
- Has 60 days to hire people.
- ICON online system for Diamond facilities can happen at any time.
- Physician ICON order entry will work fine.
- Diamond contract extended to 1 April 2010. Begin bringing on facilities in March; maybe one a week.
- All sites converted to central pharmacy services eventually.
- The plan meets the central fill requirements of the Iowa State Board of Pharmacy.

Board Regulations: The above started some discussion about fulfilling State Board requirements. Receipt of products was discussed, specifically who takes delivery at the institutions. There are emergency plans for the provisional stock. Policies and procedures must be checked. As of right now, they know who signs for the FedEx box.

DHS: We must understand how the DOC transition effects DHS and visa versa. Cost consideration will be a major issue. Office of Attorney General can help with DHS communications. Team feels we must talk with them. Jim Miller will see who we should contact (Sally Cunningham; Charlie Krogmeyer)

Clinical Services: Paul, Steve, Bernard will collate ideas.

Overall Central Plan: There is concern that $400k is not sufficient to purchase the basic drugs for setting up the pharmacy. We cannot change the pharmacist salary of $75k, which is too low. We cannot change the basic Tech salary, which is too high. There needs to be a new personnel classification for pharmacists – one residency and clinical trained. As it is, pharmacists will do a lot of dispensing and formulary 'maintenance'. The team thinks this is not optimal. Bar coding, which would help, will not be up and running. The Director of Pharmacy will do a lot of dispensing and formulary compliance– again the team thinks this

is not optimal. Shift pharmacist time to new prescriptions and less on refills. Delivery will be by local courier. Team recommends that the technicians do the order entry and not the pharmacists. Focus on keeping the pharmacy director doing administrative and clinical stuff, not general packaging or dispensing.

Purchasing: The team needs to see the actual AmerisourceBergen contract (we have the generic info). Ken Paulsen can get? Also suggest a teleconference with GPO (Paul A) to discuss total drug spending and a market basket analysis.

Visits: Tom will think it over and get a plan for visits to other facilities.

Clinical Services: A clinical pharmacist could work on formulary, protocols, etc. similar to Long Term Care Systems. Use of integrated model can create exciting clinical job descriptions.

End of meeting.

Addendum – Discussion between Sorofman, Shields and Temple prior to meeting:

- Diamond contract extended to 1 April 2010.
- Equipment ordered.
- 2 pharmacists and 3 technicians positions posted with 60 day listing.
- Proposed transfer of pharmacy assistant from Newton to central.
- Total central staffing by 1 Feb will be 2 new pharmacists; 3 certified technicians; 1 assistant.
- Hours 6-6 M-F; 8-12 Sat.
- Ordered MTS 500 packaging machine and smaller manual packager.
- Plan for Central will be to get 4 Diamond facilities on board. FDCF and NCCF will be 5th and 6th institutions. To do this must get another pharmacist.
- Sees clinical pharmacy in FDCF with NCCF and then ICIW with NCF. Goal would be 1 clinical pharmacist each side of the state with an idea of 4 total.
- All acute care and intake will occur at Oakdale.

Iowa Department of Corrections
Pharmacy Evaluation Project
Meeting #5 - December 17, 2009
Des Monies, Iowa
10am to 1pm

Attendees: Gainer, Kate; Miller, James; Shields, Susan; Sorofman, Bernard; Temple, Thomas R.; Trewet, CoraLynn; Wegmann, Brian

Guests: Jeanie Brown, Health Enterprises; Matt Eide, Eide and Heisinger; Dennis White, Servishare; Julie Prokop, Health Enterprises; Rick Knudson, Premier; Patrick Bell, Premier.

DOC Update: Central pharmacy took possession of their space on December 15, ordered equipment, set packaging bid, began refurbishing space, ordered office materials, and set plan for security. Staffing will be reduced to 1 technician and two pharmacists plus the Director and one pharmacy assistant (from Newton). FDCF and NCCF will be absorbed into Central. Medical assistant will change title at FDCF and be managed by the Nursing Supervisor. There is a plan to have help from Drake students. Operations are still planned to be 6 to 6 M-F and 8 to 12 Sat. Expectation is that there will be 15k prescriptions per month when including FDCF and NCCF.

Staffing: Pharmacist to technician ratios should be considered. Shift basic dispensing preparation to technicians. Right now operations looks like pharmacists are going to do technician work. 3 technicians would be OK with 4 optimal. 1.5 to 2 pharmacists plus the director would be OK and probably could cover 6 institutions. Oakdale staffing will be 2 pharmacists full time, 1 pharmacist part time (currently 1 pharmacist full time, 2 temporary pharmacists), 3 technicians and 1 clerk.

Clinical Services: Treat the program like a Long Term Care system. Visit each institution one time a month except Oakdale. Clinical pharmacist would do population reviews, DUR, Educational programs to prescribers and staff.

Discussion with Premier: Brochure and data provided. Extensive Discussion. Notable – auto substitution program with 10% reduction in price; service fees recuperation (1-3%) shared to some extent; rebates can return; fees from --$3.34 to --$2.68 in a cost minus system.; can establish review cycle. Likely tier is "non-acute, non retail".

Recycled Medications: Iowa Prescription Drug Corp is recycling medications. Drugs to DOC for resident offender is not likely, drugs for discharge may work and/or drugs post release is a possibility. Need to explore more.

End of meeting.

Iowa Department of Corrections
Pharmacy Evaluation Project
Meeting #6 - January 28, 2010
Iowa City, Iowa
11am to 2pm

Attendees: Abramowitz, Paul; Gainer, Kate; Miller, James; Nelson, Steve; Sorofman, Bernard; Temple, Thomas R.; Trewet, CoraLynn; Wegmann, Brian

Guests: Laura Elliot, UIHC Pharmacy Resident; Megan Duffy, UIHC trainee.

DHS: The meeting started slightly early with a discussion of the Iowa Department of Corrections working relationship with the Department of Human Services (DHS) at two IDOC sites. We reviewed previous discussions. The two sites where DHS runs pharmacy for IDOC have a much larger population of IDOC offenders than DHS clients. Recommendation: Due to the large proportion of IDOC over DHS residents at the MTPF and CCF, it would be more efficient to have these operations run by IDOC.

One State Central Pharmacy: The team had a discussion on the efficiencies and improvement in quality that could come with one state central pharmacy. Recommendation: Consider bringing DHS state pharmacy programs together with IDOC and make it one Central distribution and one centrally managed pharmacy operation.

DAS: The team reviewed the discussion we had previously with the Department of Administrative Services. In general, the discussion was about the level of expertise needed to be able to create and monitor bids for the purchase of pharmacy goods and services. One thought was that the DAS needs to have an advisory group for the specialized purchasing of pharmaceutical goods and services

Organization of new Pharmacy: The team discussed the IDOC plan to have two central pharmacies, one in Des Moines and a second one at IMCC. The decision was to recommend that there only be one central pharmacy serving 8 IDOC facilities and supporting IMCC. IMCC would be a standalone pharmacy due to its uniqueness.

Advisory group: The team recognizes that there are many elements of pharmacy for which IDOC (and DHS and DAS) does not have experience. We will work on a potential recommendation of an advisory group for IDOC.

Clinical Pharmacy Services: The report must define what clinical pharmacy services are and what they can do to improve offender outcomes and reduce program costs. The team discussed a centralized clinical pharmacy service where a clinical pharmacist would review

records and make recommendations related to clinical outcomes from a population / medication use evaluation perspective. The Clinical Pharmacist would also do local reviews of charts and if needed meet with clinicians and offenders to optimize services. One quick thought was to have two clinical pharmacists – one centrally and one at IMCC. Discuss in the report how clinical pharmacy will reduce margins and save money for IDOC. Another thought, because the practice of clinical pharmacist services was new, to have IDOC contract clinical services to an expert group who knows how to manage these services. At this time there are a large number of options for clinical pharmacist expertise – psychopharmacology, diabetes and other major chronic diseases.

IDOC Pharmacy Finances: The more the team discusses the financial aspects of the IDOC pharmacy program the more they realize that there are many data elements missing to make quality decisions. It is recommended that the IDOC do an in-depth finical analysis of the pharmacy program at IDOC.

Staffing: The pharmacist to technician ratio planned for the central pharmacy is out of balance. The team discussed options and decided to just provide their best guess recommendations to the IDOC on staffing the Central Pharmacy and IMCC. These may or may not coincide with current plans. Pharmacist hiring and employment should include pharmacists with knowledge of best clinical practices. The staffing of 1.5 FTE for both a pharmacist and certified technician seemed adequate for IMCC. We need to think this out more. Also, the employment of pharmacy assistants should be shifted to employing certified technicians.

IDOC Pharmacy Data: The data we have on prescription purchase and usage is incomplete and at times seems to not fit general expectations of the team. For example, the information we have triangulates in on the plan to have 15,000 prescriptions per month dispensed from the central pharmacy after taking on 6 sites, but the numbers do not 'feel' right to those with experience in this area. One recommendation we can make is that the IDOC pharmacy program begin to collect on a regular usage and cost data. We may be able to provide some direction on that.

Report introduction: We must state that our report is based on the following assumptions --- and then list them. Topics such as total expenses of $10m, number of prescription per offender of 1.5, proportion of offenders with prescription 2/3, etc. should be mentioned. We also should note that our recommendations are to optimize care and reduce costs.

Formulary: Brief discussion of the formulary indicated team agreement that the formulary is pretty good but not well followed. This appears to be a deficiency.

Purchasing: While discussing formulary the team indicated it wanted to state that the system to evaluate purchasing was a deficiency and a system should be set up.

Site Visits: The team discussed site visits. We decided that we would start with phone calls to Arthur Nelson at Texas Tech (Sorofman) to determine who in Texas we can talk to about their pharmacy program. Contacts will be sought for Wisconsin (Temple will get a contact) and Pennsylvania and any suggested corrections systems they recommend. Sorofman will work with Temple on the calls. Questions should center on staffing, clinical services, MUE services and data collection. Also we discussed visiting CCF or MTCF to see how the DHS/IDOC relationship works.

IPDC: Iowa Prescription Drug Corp was again discussed. We are going to recommend that IDOC try to work with the drug redistribution system of IPDC that is supported by the State to get reduced cost, quality drugs to offenders.

Purchasing: We will develop a recommendation that the DAS put out an RFP for a Pharmaceuticals Group Purchasing Organization bid to provide pharmaceuticals. The bid should require that the GPO have a local wholesaler partner.

Report writing: The group feels that they will have their final report by the end of March.

Our next meeting will be March 2, 2010 from 10 to 2 in Iowa City.

End of meeting at approximately 1:45pm.

Iowa Department of Corrections
Pharmacy Evaluation Project
Meeting #7
April 9, 2010
Iowa City, Iowa
10am to 200pm

Attendees: Abramowitz, Paul; Miller, James; Nelson, Steve; Sorofman, Bernard; Temple, Thomas R.; Trewet, CoraLynn; Wegmann, Brian

The entire meeting consisted of discussing a near final draft of the evaluation team report. All comments were directed at the document.