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*Report on the Medical and Mental Health
Programs of the Dallas County Jail*

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INTRODUCTION

In December of 2004, the Dallas County Commissioners Court contracted with Health Management Associates (HMA) to perform a comprehensive review of the medical and mental health services at the Dallas County Jail. HMA, in order to assure a highly qualified and comprehensive review, subcontracted with Dr. Michael Puisis, a specialist in correctional health with significant experience in both operating jail health services and reviewing such programs across the country, to perform the on-site analysis.

Dr. Puisis worked in leadership positions in health services at Cook County Jail in Chicago for more than a decade and spent his last five years there as its medical director. From 1996-1999, Dr. Puisis was the Regional Medical Director for the State of New Mexico for Correctional Medical Services and, since 1999, has worked as a consultant on correctional health care for jail and prison systems across the country. He is a member of the National Commission on Correctional Health Care Task Force for the revision of the *Standards for Health Services in Jails*, has been a consultant to the US Department of Justice on jail and prison health conditions, is a reviewer for the Centers for Disease Control (CDC) for the *Prevention and Control of Tuberculosis in Correctional Facilities*, and is a member of the National Commission on Correctional Health Care's Physician Panel on Clinical Practice. Finally, Dr. Puisis has published widely on correctional health issues. In addition to Dr. Puisis, the HMA team on this project has consisted of Pat Terrell and Dr. Terry Conway, two Principals with significant experience in the organization of public sector clinical services operations.

The report that follows is presented in two parts: 1) the first-person assessment of Dr. Puisis, and 2) the recommendations that were developed from both the intensive analysis of Dr. Puisis and interaction between Dr. Puisis and the rest of the HMA team. In the process of the review, only the main jail complex was studied, but conclusions drawn from the evaluation at the main complex can be generalized to the detention facilities as a group. While this evaluation did not address the female care at the George Allen Center, most of the recommendations apply to that facility as well.

The report is formatted to answer a series of questions posed as deliverables in HMA's contract with the Commissioners' Court. Each question is addressed in Dr. Puisis' review, followed by a discussion of the relevant issues. The recommendations at the end of the report define a set of objectives that will provide direction for specific actions needed to improve the health care services in the Dallas County Jail.

FINDINGS ON THE MEDICAL AND MENTAL HEALTH PROGRAMS
OF THE DALLAS COUNTY JAIL

Michael Puisis, DO

January, 2005

I was asked to review medical and mental health care at the Dallas County Jail by Health Management Associates (HMA). Health services were to be reviewed in a structured format answering multiple questions regarding care delivery. In order to accomplish this task, I toured the jail and spent eight days in the facility, reviewed documents and medical records, interviewed staff from the jail and medical vendor, and interviewed various officials whose agencies interact with the jail in the delivery of medical or mental health care.

Medical and mental health care services are provided at the Dallas County Jail under a contract with University of Texas Medical Branch (UTMB) and, thus, UTMB was a significant focus of this analysis. Both the Sheriff's staff and UTMB were very cooperative in my review. While UTMB would not provide financial information related to its allocation of County funds (the budget) and I was not able to obtain pharmacy utilization information, there was full cooperation of the medical and administrative staff in every other aspect of this process. I want to thank the many people who, though understaffed, obviously work extremely hard in a very challenging environment with a dedication that I found admirable. I hope they are able, if they review this report, to separate the criticisms of the program from their clinical dedication to their work.

OVERVIEW

Since October of 2002, Dallas County has provided medical care through a contract with the University of Texas Medical Branch. This contract is supported by County funds through Parkland Hospital and is monitored by Parkland Hospital. The contract is comprehensive and capitated on a per diem per inmate charge. Parkland Hospital, in turn, is reimbursed by the contractor for inpatient, outpatient and emergency care at a negotiated rate. The medical vendor is obligated for all costs of care, including pharmacy costs, excluding some specific psychotropic medication costs.

The Dallas County detention facilities include several adult jail facilities and three small juvenile facilities. This review only included a review of the main jail complex (Lew Sterritt and North Tower). Excluding the three small juvenile facilities, the census and capacity at the adult facilities during the time of my review was:

	<u>Census</u>	<u>Capacity</u>
<i>Main Complex</i>		
North Tower	2954	3292
Lew Sterritt	1268	1478
<i>Other Jails</i>		
Suzanne Kays	937	1008
George Allen	693	791
<i>Unassigned</i>	212	
<u>Totals</u>	6064	6569

Most medical and mental health high-acuity patients are housed in the main complex which is the reason for focusing on those facilities. The Lew Sterritt Center includes an intake area and a medical infirmary (which is basically protected housing) and a West Tower that contains most of the closed and open behavioral observation cells for inmates with mental illness. The North Tower facility contains some female housing, including female observation cells, and a large male general population. The George Allen Center has a female infirmary and houses both men and women of all classification levels. The Kay Center is a minimum-security facility with a single nurse station. Data from 2002 show that in that year, 58% of inmates were discharged within 5 days of incarceration. Approximately 11% of inmates stay longer than 60 days. From current census data, 14% of inmates are females.

DELIVERABLE #1: *Closely observe the intake processes at Dallas County Jail and /or other Dallas County detention centers (i.e. how quickly and accurately is mental illness or potential suicide detected, how detainees are directed into care after such detention, etc.).*

Typical Expectations for Intake Screening

Conducting intake screening evaluations is an important activity that establishes the clinical requirements necessary to safely house inmates in a jail. This process addresses immediate health care needs of new inmates and assists in assigning special housing via classification.

Intake evaluations should include both arrival screening and intake physical examinations. The purpose of arrival screening is to assess the general well being of an inmate immediately upon his/her arrival in the institution in order to identify emergency conditions that must be addressed upon entry to the facility, facilitate the immediate transfer to a hospital or to identify chronic conditions, medications and any current problems that should be identified in this population. This screening is typically performed by nurses or other health care personnel and should both identify conditions that require immediate attention prior to completion of a physical examination and ensure continuation of prescribed medications.

Arrival screening typically consists of a structured history of the inmate's mental health and medical problems and previous therapy, visual inspection, vital signs, and entry testing for tuberculosis (Mantoux skin test) with follow-up. Patients identified by this screening as requiring immediate attention are referred for mental health or medical physician review or examination as indicated. Inmates should also, at this time, be instructed on how to access health care and mental health care once they are housed in the facility.

Intake assessments or examinations are evaluations that should take place anywhere from hours to two weeks after an inmate arrives in the facility. The time period between arrival and the examination is determined by whether the detainee has a medical or

mental health condition that requires evaluation. Inmates are prioritized based on safety concerns and evaluated in a time-frame appropriate for their clinical condition(s).

Intake physical examinations have two purposes:

1. follow-up of recognized medical or mental health problems identified on arrival screening, and
2. performance of age, population, and gender specific interventions and examinations that update appropriate screening, counseling and other interventions (vaccinations) that are appropriate for the inmate.

Follow-up of known or new medical or mental health problems are one major focus of intake physical examinations. This activity ensures the prompt continuation of necessary medication for all inmates with chronic medical and mental health conditions.

Physicians, psychiatrists or licensed prescribers should be available on-site or on-call to initiate necessary medication whenever required for a newly arrived inmate. The arrival screening process should identify the priority of examination for newly screened inmates. Persons with more potentially serious chronic illness (i.e., active psychosis, suicidal, type 1 diabetes mellitus, coronary artery disease, cancers under treatment, etc.) should be referred from arrival screening for early physician appointments to establish a baseline examination for their chronic mental or medical illness, as well as completing their age and gender specific health appraisal interventions. Typically, a physician or psychiatrist should examine persons with serious medical or mental health problems. This should occur early (e.g. within 24-72 hours of arrival).

The Dallas County Jail Reception Screening Process

The Dallas County reception screening process is ineffective. Officers perform medical reception screening in the Dallas County Jail. There are no medical policies governing how officers screen and officers receive no training to screen. Officer screening is not accomplished under medical supervision. The scant medical policy on reception screening that does exist merely indicates that once an officer identifies a problem, he/she refers it to the intake nurse.

Detainees are interviewed by screening officers prior to obtaining a booking number. Ostensibly this is done so that if an inmate is identified with a serious medical problem, they can be referred to Parkland Hospital before they are incarcerated or can be referred for mental health diversion. There are financial considerations in this practice. If an inmate is sent to Parkland prior to booking, then UTMB is not liable for the cost of hospitalization.

Two separate screening questionnaires are used by officers as they screen inmates. Both are self-report forms. One is the Mental Disability/Suicide Intake Screening Form and the other is the Medical Screening Form. These forms are not incorporated into the medical record.

Detainees line up for reception screening by officers in multiple lines perpendicular to a long counter behind which screening officers stand. At any one time, as many as four lines of inmates present at this counter. Detainees stand in one of these lines approximately one to two feet apart. Officers standing behind a counter perform the Medical Screening Form as the inmates approach. The arresting officer may be standing immediately behind or next to the detainee. The detainees that I observed were in the process of taking clothing off, giving articles to arresting officers, and attempting to pay attention to the transfer of their property to officers. The room where officer reception medical and mental health screening occurs is a large room that is both the screening area and throughway for the entire intake process. Dozens of staff are walking around, inmates are sitting on benches waiting in line, people are loudly talking, there are multiple conversations creating a chaotic situation. In this context, officers are publicly asking questions about health concerns, whether detainees are suicidal, past psychiatric history, etc. Neither the officers nor the detainees appeared to be paying much attention to the task. This screening process is not a specialized officer assignment and any officer may fill this role. There is no training for any of these staff. It is highly likely that officers would not understand the reasons for asking the screening questions that they are to ask inmates. One officer in the intake area admitted to me that it was likely that inmates with certain medical or mental health conditions might not want to reveal it under these circumstances.

Public screening for medical or mental health purposes is not appropriate and for this reason, standard-setting regulatory agencies (e.g. National Commission on Correctional Health Care) require that clinical encounters occur in a setting of privacy so that accurate information is obtained.

In the Dallas County system, officers currently identify approximately 30% of detainees as having a medical or mental health problem and refer them to the Registered Nurses in intake for further evaluation. However, several independent staff members in mental health as well as in medical services cited that, in their opinion, officers miss approximately 25-35% of detainees with medical problems. These detainees may subsequently be identified if the detainee requests health services once incarcerated. The 25-35% of detainees with health problems missed by screening officers is approximated based on the number of health requests that subsequently reveal medical conditions. However, substantial numbers of detainees are discharged within the first several days of incarceration. Only approximately 42% of inmates remain in the jail longer than 5 days. Therefore, it can be estimated that a considerable number of persons missed at intake do not even place a request because they are discharged prior to being able to place a request. This would mean that the number of detainees with health conditions missed by screening officers exceeds 35%, conservatively. Because it can not be predicted with any certainty that those missed will be released from custody, it is very likely that persons with serious illness are missed who will remain in the facility. This assumption was ultimately validated upon my subsequent review of medical records.

When an officer identifies a mental health or medical problem at this reception screening, the detainee is referred to one of two Registered Nurses in the intake area. Nurses review

the officer screening forms and then perform a Central Intake Evaluation Form that includes vital signs, a pulse oximeter reading and a number of questions regarding history of medical or mental health illnesses as well as medication history. Nurses will decide which of these patients will need subsequent evaluation or special housing. The paper forms of persons who are referred by nurses in intake for follow up evaluation are then scanned at a later time into the electronic medical record. This group represents only a small percentage of persons entering the jail (approximately 30%). The electronic medical record is not utilized in the intake area.

The self-report questionnaire completed by a nurse is performed in a clinic room in which both intake nurses are simultaneously interviewing inmates. Officers enter the room with the inmate and can listen to the interview or even stand next to the inmate. On the day I observed intake, officers were standing nearby, sometimes listening and sometimes talking to other staff or simply waiting for the nurse to complete the interview. This situation does not ensure confidentiality and may result in less than accurate history. After this evaluation, the nurse makes a decision about whether the detainee is referred for specialized medical or mental health housing. Only persons referred by a nurse at intake are followed up by mental health or medical staff on subsequent days. This is why the intake process is so important.

As of December 8th, I was told that there were 89,000 persons incarcerated, for an approximate average of 260 persons a day, during 2004. In November, approximately 81 persons a day (30% of those daily incarcerated) were referred to a nurse for medical or mental health problems. Of the 81 persons evaluated by nurses daily, approximately half (41 per day) were referred for a secondary evaluation or placed in special housing. The breakdown was:

- 26 referred daily for mental health evaluation;
- 13 referred to the infirmary;
- 1.5 referred for follow up medical evaluation;
- 0.5 per day referred emergently to Parkland Hospital.

The decision regarding whether a medical follow up will occur is made at a later time by nursing staff in the housing units. Mental health referrals are somewhat different. All those deemed by intake nurses as having mental health problems will be referred to mental health liaisons for a follow up evaluation. However, intake nurses receive no training in mental health screening and perform their evaluation based on legacy experience.

Using the November statistics for Dallas County, approximately 30 people a day (10% of persons incarcerated) are referred for mental health screening. The American Psychiatric Association (APA) estimates that approximately 20% of persons in correctional facilities have serious mental illness. Given that clinical staff at the Dallas County Jail estimate that officer screening misses about 15-30% of those with mental illness and that many people are discharged before they are discovered, it is highly likely that between 10 to 25 people a day go through the intake process without having their mental illness identified.

These missed opportunities to pick up illness result in detainees having to place sick call requests and increase the evaluation burden later in the clinical process and can result in detainees being unsafely housed.

The paperwork related to detainees who will be referred for evaluation are placed in a central location and subsequently delivered to either medical units or to the mental health unit. All mental health referrals are delivered to the 3rd floor mental health offices on the 3rd floor of the Sterritt building.

Mental health liaisons are the primary mental health evaluators. Typically, they have Bachelor level training. Referrals from intake nurses are delivered to a clerk in the mental health offices who distributes them to mental health liaisons. Mental health liaisons do their routine work on weekdays. On weekends, limited staff is available to perform screenings (only serious problems –e.g. suicidal inmates – are examined) and, therefore, on Mondays most of the weekend referrals have accumulated and result in a higher number to be seen. This results in a catch-up process in which liaisons attempt to complete evaluations of referrals.

Before the liaisons can evaluate the patients, they must locate them. Accommodations for person with mental and medical illness will be described later in this report. However, serious mentally ill can be housed in any one of a number of closed behavior observation or open behavior observation cells. Liaisons look up the location of each of their patients individually on the custody inmate tracking system. On a daily basis, their entire caseload of patients may have changed locations. This occurs unpredictably and without notice, as will be described later. Once they have located inmates on their caseload, they must then locate an officer to escort them to the housing unit so that they can interview the inmate. No one is permitted to see inmates who are housed in closed observation cells for clinical evaluations without an escort. There are about four times as many clinical staff as there are officers. The result of this disparity is that there is competition for officer time, creating a drag on the efficiency of the mental health workers and reducing the number of individuals that can be evaluated in a day. In addition, those inmates missed at intake screening, those with newly diagnosed conditions, those who have problems with their medications or with appointments all write requests for care that the liaisons have to evaluate. For the liaison for the 3rd and 4th mental health floors with the majority of mental health patients, there are approximately 25-30 inmate health requests on a daily basis. About half of these inmates already have appointments. Those who have appointments are not seen even though they may have a need to talk to someone about some aspect of their care before their appointment. Those without appointments must be located and are then placed in the queue to be seen. They are seen after the intake referrals are seen. However, because the liaison is engaged seeing intake referrals and has difficulty in getting an officer for escort, many of these individuals who place requests to be seen are discharged from the jail before the liaison can see them. Some of these may have had mental illness that was missed at intake screening.

After the liaison sees an inmate, the inmate may be moved. Additionally, a nurse or custody staff may have assigned an inmate to one of the closed observation cells and no one may know they are there. One liaison I talked to prints a list once a week of all inmates housed on units that he is assigned to. He then tours the units and individually questions the patient regarding whether the patient has a problem and whether he has been seen. There is no method to determine an aggregate caseload for any of the practitioners. Many practitioners have developed their own unique methods of attempting to track patients that are housed on units to which they are assigned. Even though these checks are performed, there is no guarantee that someone who was missed will be seen because of the aforementioned backlogs and custody restrictions. Further, the list printed up from the custody computer contains no clinical information; it only has housing information. So the weekly rounds are blind clinically. The purpose is only to identify a crisis patient by interviewing patients, in which case the liaison will look them up.

Thus, the steady state of this system is one in which there is incomplete intake screening, delayed subsequent evaluations and a steady attrition of unscreened inmates by virtue of being discharged from the jail before they can be evaluated.

Additionally, the electronic record is useful for looking up clinical records in one of the offices, but the system adds additional work for mental health staff. All mental health patients must be seen cell side. Therefore, all notes are written on single progress notes or pre-printed forms and are later scanned into the electronic record. However, as clinicians are seeing patients, their evaluations never occur with the benefit of a medical record. While the electronic record is a useful way to retain records, the current arrangement defeats the main purpose of having a medical record--that clinicians can review past evaluations as they are seeing patients. Looking up patient locations, scanning paper copies of progress notes into the record, and maintaining personal lists of patient caseloads consumes up to 30% of liaison time.

DELIVERABLE #2: *Evaluate the capacity of the intake and other jail staff to diagnose detainees.*

Intake

There is no one assigned to the intake screening process licensed to diagnose either medical or mental health conditions. In this respect, there is UUno capacity to diagnose illness at intake. The screening process exists not to identify disease but to assign housing to inmates. To a certain extent, nurses make referrals and some patients are referred to Parkland Hospital, to mental health and to the infirmary. Many inmates do not have their chronic illness identified through the intake process. For those whose condition is identified, the subsequent evaluation of the status of their disease is dependent on nurses in the housing units. Follow up evaluation seldom occurs by a physician; this only occurs if a second nurse on the housing unit refers the patient to a

physician. Significant numbers of persons with clinical conditions never receive an evaluation by a clinician other than a nurse.

The intake nurses are Registered Nurses capable of performing assessments but are not trained or licensed to diagnose. Occasionally they perform minor treatments, but mostly they make housing assignments (infirmary, closed or open observation, general population, etc.). Practically, nurses manage intake without direction from any advanced level practitioners (nurse practitioner, physician assistant, psychiatrist or physician). For inmates who have new problems, or a condition that appears complicated, the nurses in intake can contact the on-call physician to discuss the problem over the phone. However, in reality, consultation with a physician occurs for only a very small number of inmates.

For the month of November as an example, the nurses made 81 calls to the physician on call. This volume amounts to 2.7 calls a day out of 260 admissions to the jail. As will be discussed in a later section, significant numbers of persons in a jail situation can be expected to have a chronic disease. If looked at from the perspective of persons referred to the nurse from custody officers, nurses call a physician for 3% of inmates referred to them by custody officers.

The National Commission on Correctional Health Care estimated expected rates of selected chronic illnesses. For the following diseases the average rates nationally were: asthma--8.5%, diabetes--4.8%, and hypertension--18.3%. Other common conditions include epilepsy, alcoholism (and alcohol withdrawal syndrome), other substance abuse withdrawals, sequelae of traumatic injuries and infectious diseases (HIV, tuberculosis, sexually transmitted disease, etc.). The cumulative rate of persons with a chronic illness or other medical condition is unknown but can be expected to be somewhere around 30%. In Dallas County, intake nurses screen on average 81 patients a day. Twenty-six are referred to mental health. If all of the others are assumed to be medical patients, then this would equate to approximately 21% of incoming inmates being identified as medical patients, below the expected number anticipated. As with mental health conditions, it appears that many detainees with medical problems are missed by officer screening.

The nursing review of inmates sent to them consists of a review of the officer screening questionnaires and completion of another medical questionnaire with vital signs. The medical questionnaire includes a listing of medications. The physical examination only includes vitals signs. There is no formal required visual inspection of the detainee. The examination is not conducted in private; it is in a room shared by two nurses. Two simultaneous examinations are being conducted and there are officers present as well as visitors to the officers. Thus, inspection is only incidental to the interview. For asthma patients, a pulse oximeter reading is evaluated. This is not a useful screening evaluation of asthma; expiratory peak flow testing of persons with asthma is not done. Pulse oximeter testing should be ordered by a physician because nurses in this system do not understand the purpose of this test and using it for asthma can result in dangerous mistakes being made.

In the intake area, an examination of an inmate behind a curtain can be performed, but it appears to be the exception rather than the rule based on my observation of the process. In this arrangement, the effectiveness of screening for serious medical conditions is significantly reduced.

After intake nurses complete paperwork for inmates referred to them, they send that documentation for persons with medical conditions to nurses in the housing units to which the inmate is being sent. The following day, every day, nurses on those units receive a pile of referrals from intake. On weekends, these back up somewhat because a physician is unavailable to review referrals. Nevertheless, an assigned nurse evaluates every one of these referrals. This takes a considerable amount of time. The intake sheet is scanned into the medical record and the nurse may write a brief note for selected patients. Some patients are seen by the nurse.

There is no policy or procedure for how inmates who come into the jail at intake are to receive their medication or be referred to a physician. Only certain persons will be started on medication from intake. The operating practice appears to be that if a patient brings medication in with them in a labeled container, intake nurses will allow them to have several days worth of medication. If they do not have medication with them, intake nurses will either call a physician or note the medication on the intake sheet for follow up in the housing unit. Given that only approximately 2.5 calls per night are made to a physician, not very many patients on medication have prescriptions written from intake. For the majority of patients on medication, the nurse on the housing unit will send an electronic reminder to a doctor indicating that certain patients need medication prescribed.

The nurse is the person who also evaluates intake referrals, makes any necessary notations, may see some patients, and may refer them for physician review. Physicians will thus see only a fraction of incoming persons with chronic illness. Based on discussions with staff and further validated by medical chart review, it appears that only about 25% of incoming inmates with a chronic illness are actually physically seen by a physician following intake. For most patients, their care involves physicians or nurses reviewing an electronic version of a scanned intake form written by a nurse who is seeing patients in a setting without privacy and not having performed a physical assessment.

This practice of review of electronic record is the dominant form of clinical encounter at the facility and accounts, I believe, for the fact that virtually none of the medical charts I reviewed reported physical examinations of the patients. This practice may be a result of lack of clinical staff, a problem which I do believe exists. However, an examination of the effect of the electronic record on reducing clinical examinations should be performed.

Even in the most efficient version of this process, a physician will prescribe medication for a patient the day following intake without having evaluated them.

Patients with chronic illness also may never be adequately evaluated in this system. Physicians must not only review intake reminders, charts, and prescribe medication for intake patients but are also responsible for seeing patients who request to be seen in sick

call via the kite system that will be described later. In one physician's case, he is also responsible for managing all of the tuberculosis patients. This amount of work results in physicians managing all illness by reviewing electronic reminders that nurses send them. The net result of this practice is that only nurses manage face-to-face care of patients and virtually no one obtains a clinical examination appropriate for their condition. In addition, the nurses' description or documentation of the patient's illness may not be accurate. This may result in patients with serious illness being described less seriously by nurses and therefore ignored by busy physicians. It appears from chart reviews that this is occurring as a usual pattern.

Sick Call and Evaluation of Inmate Requests for Care

Sick call is a process in which inmates in the jail population are evaluated based upon requests for care or in follow up of already established care. Access of this type is fundamental to the 8th Amendment Constitutional rights of inmates. The sick call process in Dallas County Jail is not adequate and its steady state is that inmates, by attrition, leave the jail before being seen more frequently than being appropriately evaluated. The system suppresses utilization by virtue of the multiple barriers to access.

Inmate health requests are called kites in this system. Inmates request care by filling out a form stating their reason for requesting to receive care. The distribution of these kite forms to inmates and the delivery of completed kites are mediated by officers. In most correctional systems, both for privacy and to ensure that officers do not destroy or mislay an inmate's request, inmates are permitted to have access to paper kite forms and to a locked container in which to place their kite. The reasoning is that if only health care staff have access to the locked containers, delivery directly to a health care person would be ensured. However, because officers handle kites in the Dallas County Jail, confidentiality is not ensured and transfer of requests to health care is dependent upon the trust of officers to transmit the information to medical staff.

In most correctional systems, the number of inmate health requests is typically around 10% of the incarcerated population on any given day. It is important to put into perspective the fact that inmates have no access to any over-the-counter medication or freedom to seek any type of care or assistance without first going through medical staff. For that reason, they seek help through the medical services. These requests therefore include assistance for minor complaints mixed in with complaints for care for very serious illness. The manner in which a request is written does not often portray the seriousness of the actual problem. Therefore, it is imperative that each request be evaluated in order to determine the needs of the inmates.

The exact number of kites inmates fill out is not an officially recorded statistic, but some nurses maintain the number of kites received. Because of the lack of secure transmission of inmate requests from inmates to health care staff, inmates may be requesting care via kites that health care staff do not always receive. Official statistics are only kept for the

number of kites scheduled for appointments and responded to in writing which may not necessarily include all of the kites inmates fill out. I reached this conclusion because of the low percentage of kites (4%) received by the health care staff compared to an expected number (10%) that is seen in a typical correctional facility. In this system, with imperfect intake screening, lack of physician examinations for those with chronic disease, and with delays in getting medication, it should be expected that the numbers of kites should be much higher than the 10% typically seen in other correctional systems because more people will attempt to obtain necessary services.

As an example of the Dallas County system, I looked at the North Tower sick call and kite process. Nurses in the North Tower perform sick call, evaluate kites, and respond to emergencies. They are so overwhelmed by the number of requests for care relative to their staffing level that they have accepted seeing only a percentage of inmates who need care. Nurses evaluate kites by going to the housing units where inmates reside and doing a brief evaluation at a desk near the control tower. For clinical conditions, this is not acceptable practice, and is only acceptable as a crude form of triage. There is no privacy and no acceptable place to examine patients. For the North Tower, nurses receive approximately 120 health care requests a day. This represents only approximately 4% of inmates, which is lower than typically seen in correctional settings (making me believe that the process of officers handling sick call requests is not optimal and may be a barrier to inmates getting their request to health care staff).

In any case, nurses have staffing to evaluate these health care requests only two days a week. Correctional health standards require that these requests be evaluated within 24 hours. Requests that are not evaluated are not entered into the electronic record; only those seen are entered. On the two days the nurse sees patients she will see approximately 70 persons in about 4 hours. This is approximately three and a half minutes per patient, a very brief evaluation given that this includes the time it takes to travel between housing units and to move patients through a line. The quality of clinical evaluation can only be crude triage sufficient to determine whether a patient should be seen in sick call in the clinic. The remainder of the shift will be spent in entering data about these visits into the computer. However, since nurses receive approximately 120 requests a day on a 5-day-a-week basis, nurses are only evaluating about 25% of requests that they receive. About 40% of requests are responded to in writing; the remaining 60% are triaged for scheduled appointments in sick call.

Sick call is a clinical evaluation that the nurse performs in the clinic so that an appropriate evaluation can occur with privacy and with appropriate equipment. There are multiple barriers to inmate access in this process. The first barrier is simply the number of scheduled visits relative to the available staff to see patients. All requests for nurse sick call are entered into a computer and then enter a queue. Each day a clerk prints out the queue of patients who are still incarcerated but have not yet been seen. Many more people are scheduled than can be seen. Nurses work two shifts, seven days a week and see about 30 people per shift. Statistics on the actual number persons seen was not available; only the number of persons scheduled. Nurses indicated to me that patients continually leave before they are seen.

The availability of officers is also a problem in ensuring access. During the daytime hours, officers will bring only one inmate to the clinic at a time. This is a tremendous drag on the efficiency of staff. If both the doctor and the nurse are available for evaluating patients, the process is even slower. For reasons that are not clear, officers in the evening will bring inmates in groups that allow for greater efficiency and permits nurses to see more patients on the evening shift. Nurses indicated that on evening shifts they can see up to 70 patients a shift. The quality of these evaluations is not monitored. Nevertheless, not all patients are seen who need to be seen and are reentered into the queue, which is kept at a steady state only by attrition. On the day of my visit, nurses were seeing patients who had initially placed requests in late November, or 6 weeks previous.

Emergency responses appear to be of two types. When officers call nurses for an emergency, all clinical activity in the clinic stops and the nurse responds to the emergency. In addition to true emergencies, officers may call a nurse about a problem with a particular inmate that is seen as important but not as important as a crisis. These are requests from officers to see a patient because of the officer's sense that something more serious is wrong. These might not be true emergencies but are a reflection of the officer's attempt to bring a more urgent problem to the nurse's attention. Obviously, in a system that cannot address routine problems in a satisfactory time frame, many problems raise to the level of emergency. Yet, because officers are not expertly trained in medical evaluation, the exact nature of the problem is never entirely clear. These evaluations necessitate insertion of evaluations into a system which is already backlogged and nurses attempt, with the time available, to address these "emergency" requests as soon as they are able. I was told that nurses cannot see these "emergency" patients every day but try to catch up with them by the end of the week.

The physician's role in this process is equally ineffective. The multitude of intake forms that arrive each day to the nursing station are entered into the electronic record. The nurse refers to the physician, by way of electronic reminder, if the patient needs medication. The physician reviews these reminders as well as reviewing electronic referrals from nurses for patient care issues. Because there are so many requests, the physician reviews all of these requests electronically and makes decisions about whether to see patients based on the perceived needs of the patient. Between referrals from intake, nurse referrals for care and kite requests for services, the physician has to review approximately 50 charts a day, and the nurse indicated that this could be as high as 100. Approximately half may have chronic illness, according to staff. However the physician can only physically see about 10-15 people a day, meaning that almost 70% of the people who should be seen actually are seen. These types of defective systems result in negative feedback loops in which inmates who have problems are not seen and therefore generate more requests which are not evaluated and so on and so on.

DELIVERABLE #3: *Review and analyze deaths and suicide rates and attempted suicides at Dallas County Jails and other Dallas County detention centers. Evaluate any and all suicide prevention plans of Dallas County detention centers.*

Nationally, deaths in custody are not well studied. The United States Department of Justice began collecting crude data on deaths in local jails beginning in the year 2000, but these data have not yet been published. Death rates in correctional facilities, but particularly in jails, are difficult to determine because inmates are incarcerated and discharged so unpredictably that an accurate denominator for the rate is difficult to determine. Customarily, the average daily census is used as the denominator, but in the Dallas County Jail, where over 50% of those incarcerated leave before 5 days, the denominator of average daily census may bias the death rate even further. In addition, the exact age, sex and race of all inmates needs to be accounted for if the death rate is to be compared to any other death rate to avoid misinterpretation. Death rates for young persons (the typical incarcerated person is young) are much lower than the average death rate for Americans in general. Also death in the young is typically by accident; motor vehicle accidents and homicide are the major causes of accidental death in the young. These types of accidental deaths do not generally occur in jails. Therefore, the death rate in jails should be expected to be lower than an aged matched civilian population and lower than the overall civilian death rate and it will be difficult to calculate a rate at the Dallas County Jail except for crude estimates.

In Dallas County Jail, deaths are recorded by cause of death, although there is no formal mortality review so it is difficult to determine the accuracy of these designations and therefore to what degree deaths are occurring that are preventable. As an example, for the year 2004, three of the eleven deaths were listed as myocardial infarction and another three of the eleven were listed as cardiac arrest. For this age group, six of eleven deaths resulting from cardiac events would not be expected. Therefore the actual cause of death has probably been reported inaccurately and the actual causes of death may have been the result of a preventable death that should have been thoroughly reviewed. In fact, upon reviewing one of these deaths, the patient probably died of electrolyte abnormalities resulting from complications of end-staged liver disease that were known to staff but not treated in a timely manner. The reported cause of death did not reveal this fact.

Review of deaths, including suicides, should be performed for every death to include cause and contributing causes of death, a coroner's report, identification of any problems surrounding the care of the patient, determination if the death was preventable, and corrective action steps to correct problems identified. All deaths should result in an autopsy. Also, mortality review should be a first step of peer review of clinical staff when indicated. This information should be protected so that publicity and sensationalism does not interfere with improvement of clinical care. Clinical and administrative staff may not honestly review their practice if they know that their work will be subject to public scrutiny. These reviews do not occur for deaths in the Dallas County Jail.

In the year 2003, there were 13 deaths and in 2004 there were 11 deaths of inmates of the Dallas County Jail. If the average daily census is used as the denominator, the resulting death rate would be lower than that seen in the Texas Department of Corrections (216 per 100,000 vs. 294 per 100,000). However, the fact that 58% of inmates are released within 5 days may artificially lower the Dallas County number. For the year 2003, there were three reported suicides yielding a rate of approximately 50 per 100,000. Department of Justice statistics for jails in 1999 show a suicide rate on average for all jails of 54 per 100,000. This rate had been dropping steadily and no comparable data is available for the year 2003. For the year 2004, there was one suicide in the Dallas County Jail. There are no Department of Justice statistics available for this year but it should be expected that the one suicide was below the national average.

Texas is the only state in the United States where jail standards require that county jails maintain procedures for six critical suicide prevention components, including staff training, intake screening, communication, housing, supervision and intervention. While I did not review every one of these elements, intake officer staff received no training in suicide screening and the communication between mental health staff and correctional staff is informal at best. The main problem with this program lies with the interactions and collaboration between custody and mental health staff.

UTMB mental health policy on suicide prevention was written in February of 2004 but not one of the multiple staff I interviewed was aware of any UTMB policy in any area governing mental health care, including suicide prevention. In addition, that written policy does not address major components of the suicide prevention practices. Suicide prevention should be under the direction of mental health staff, yet, uniformly, the mental health staff I interviewed did not agree with existing suicide practices, especially the stripping inmates of all clothing.

Mental health staff do not formally review suicides. Staff I interviewed did not even know how many inmates had committed suicide. The numbers of attempted suicides are not tracked either. So there is no formal mechanism to meaningfully assess or review the suicide prevention program in place.

The current practice of suicide prevention consists of placement of anyone who suggests, or appears to be contemplating, suicide into a "suicide cell," which is a closed observation cell in which the inmate is under continuous lock down. There are two tiers designated as suicide tiers and there are 8 cells in each tier that are classified as suicide cells. These cells are visually checked by an officer, ostensibly at fifteen minute intervals, although this check is not formally logged. Of those individuals interviewed, all admitted that there is a very low threshold to placement in a suicide cell. This is both positive and negative. On the positive side, staff are alerted to the potential for suicide and refer for specialized housing for those individuals so suspected as suicidal. On the negative side, this assessment is seldom performed by a mental health staff member so the sensitivity of the classification is probably poor.

There are no statistics on the numbers of persons placed in suicide cells who are actually suicidal, but mental health staff told me that it is their perception that few of the persons placed in these cells are actually suicidal. Because inmates who are placed in these cells have all their clothes taken and are given a paper gown, the treatment is less than optimal. They must remain in the cell until a mental health evaluation occurs and they can be removed through classification. This is a crude process that has positive aspects but could be improved by increased supervision of mental health staff in the placement of persons into these cells and in the supervision and management of these individuals while in suicide cells.

The actual management of suicidal inmates includes 15-minute checks on the inmate by officers and daily (Monday through Friday) psychiatrist visits. On weekends, suicidal patients are not evaluated by a psychiatrist and therefore must wait until the first working day to have an evaluation. If the patient in a suicide cell is psychotic, the liaison will see the patients daily if necessary but no interventions are done except to make a psychiatrist appointment. All interviews are in public between the bars of the cell. Suicide patients are naked with a small piece of paper to cover themselves up. Anyone can place a patient into suicide watch, including custody. These cells, similar to any closed behavior observation cell, can have their classification changed by the classification officer so that not all persons in the suicide cells are suicidal. Intoxicated people, for example, are put in suicide cells as well, confusing the mental health staff regarding the reason for placement in a cell typically construed as suicidal. One of the mental health staff conjectured that 75% of people on suicide watch aren't suicidal (it was her belief that placement in a suicide cell is usually for punishment or because of intoxication).

3P1 is a suicide tank. The order to place someone in the suicide tank, a form completed by the mental health worker (PA or MD) on call. However, the clinician doesn't even know that their name has been used to make this placement. In effect, therefore, suicide watch doesn't require a physician order.

One problem that staff encounter is that they tour the unit without benefit of any record as to why the patient has been placed in a suicide cell. They must depend entirely on the interview with the inmate to try to uncover why the inmate is being housed there. If the inmate was placed in the cell from intake, the intake note will not yet be scanned into the record and is unavailable to the psychiatrist seeing the patient. Thus, clinical decisions are made without benefit of knowing what has previously occurred to the patient. For example, on the day of my visit, there were 5 patients in 3P1 on the suicide unit. It was not entirely clear why the patients had been placed in the cells based on interviews. If a patient has disorganized thoughts, there will be little to no reliable communication as to the patient's reason for being in the cell. Mistakes will result.

I checked the medical records for the five individuals in 3P1:

1. One patient had no information in the EMR related to why he was in a suicide cell.
2. The second patient had no documents in the EMR.
3. The third patient had no documents in the EMR

4. The fourth patient had no mental health problems in October when he came in. He got in a fight and said he might kill himself and the psychiatric nurse put him on the unit. The physician assistant had given a phone order for an antipsychotic medication without an evaluation.
5. For the fifth patient, there were no notes in the EMR relevant to this suicide watch. He was incarcerated March 3rd, 2004.

Four point restraints are not used in the Dallas County Jail and there is no place in which to apply four point restraints. There is a restraint chair in intake. Officers use it without a direct MD order in order to physically restrain combative inmates. I was told it is infrequently used.

DELIVERABLE #4: *Evaluate similarities and/or other connections between mental health care services and medical health care services for their effectiveness, appropriateness, potential for duplication of services, etc. & determine the appropriate health care provider to use for mental health care and medical care at the Dallas County detention centers.*

Staffing plans should evolve out of the requirements of policy and procedure and the mission of the health care program. Every correctional facility will have varying barriers to care, different needs, and different missions to provide care to inmates. Therefore, the mission of the health care services should be established. Policy should be developed to carry through on the stated mission. From this, appropriate staffing levels can be determined. The mission of the medical program at the Dallas County detention facilities is unclear. Most staff I spoke with have a survival mentality. They see their main purpose as trying to address the emergency of the day rather than being engaged in a health care program.

The Dallas County Jail medical program does not have existing policy that is in current use. UTMB developed a policy and procedure manual in February of 2004, but no staff I talked to acknowledged that there was a policy and procedure manual that they use. Some senior staff did not know one existed. Policy in that manual is not adhered to and there are some areas for which policy should be developed or improved. I also did not get a sense of the level of services desired by the County in its jail, including the public health mission or dental care. The development of a mission by the County followed by development of policies should be a high priority for medical and mental health services. Effective policies require that staff receive training related to the implementation of those policies and procedures on an ongoing basis so that expectations are clear. A system of auditing against policies should be performed on an ongoing basis to continually improve services as well as a means to monitor deliverables of the contract. None of these processes are currently performed in an effective manner.

Also, medical and mental health staff do not always coordinate their work together. There are no joint policies on sick call that are shared between mental health and medical staff. When a person on the mental health unit has a medical problem, it appears that

there are no arrangements for the patient to be seen for the medical problem. It also appeared difficult for patients on medical units to be evaluated for mental health problems. The psychiatrists used nursing staff to assist them in transcribing their prescriptions into the electronic record because of the time it otherwise took them to do that. After these nurses were pulled to perform sick call on the mental health unit it appeared that not all psychiatrists' prescriptions had signatures on them in the electronic record. Mental health and medical do not appear to be working as a team.

If the main priority of an organization is simply quelling emergencies, development of staffing plans will be ineffective. There is no question that there is a shortage of health care staff at the Dallas County Jail. However, UTMB has developed a staffing proposal in response to that perceived lack of staffing that is based on the existing practices at the jail that were mainly to quell emergencies. In that regard, staffing proposals are not as efficient as they could be and should have a different emphasis.

In addition, no financial information regarding budget lines is provided by UTMB to the County so that an adequate determination can be made of the use of County funds in providing medical services. This lack of transparency will make it difficult for the County to adequately assess the reasonableness of any additional funding for staffing. The ostensible reason for this lack of transparency is the UTMB considers its budget proprietary. However, in my opinion, budget lines in correctional programs are not so unique as to constitute anything proprietary or special. In addition, transparency reduces any perception that excessive profit is being made.

UTMB is also permitted to use administrative and other staff to manage other contracts they have. In principle, all budgeted hours for the Dallas County/ UTMB contract should be dedicated to work at Dallas County facilities unless the County gives specific permission otherwise. The Medical Director at the Dallas County Jail, for example, is the named "cluster" Medical Director for UTMB, which means that he is managing a total of 17,000 inmates in 9 different facilities. How much of his time can realistically be devoted to the Dallas County Jail? He is managing facilities other than Dallas County facilities even though his full time position is funded through the County contract. Several other jail staff are also used by UTMB to staff other jails or prison facilities. Given the lack of staffing at the jail, this practice should be prohibited by contract language, but it is not. All budgeted positions should be fully engaged at their budgeted hours in dedication to County work. There should be a means verify this and there should be a system of quarterly adjustments to the contract that account for under-filling of contracted positions, or approved excess staffing with pro-rated monetary adjustments.

UTMB has provided a proposed staffing plan that attempts to set new staffing ratios in order to improve services. The proposed staffing plan of UTMB is, in general, structured like a prison program and not a jail program, probably because the vast majority of their work is in prisons. Prisons have stable populations with significantly smaller intake programs than jails. UTMB has not taken this into consideration in structuring their program or their staffing proposal. Also, as a general practice, UTMB proposes or actually reduces higher level trained staff with less well trained staff. While there are

times when this is not only appropriate but also fiscally efficient, there are other times when the substitution will result in less than adequate clinical care and should not be done. For example, using pharmacy technicians to pass medication is legal but for certain high risk individuals (e.g. those mental health patients on psychotropics or for those with tuberculosis), nurses are better able to perform symptom assessment and adverse drug reactions.

The most serious deficiency of staffing is the lack of qualified physician staff. The quality and mix of physicians and mid-levels is important because higher acuity patients are best managed by someone who has been trained to evaluate and treat the conditions patients have. There is no Board Certified Internist on staff, even though many people require this type of service and much of the morbidity and even mortality involves conditions that should be managed by an Internist. Most of the medical care of seriously ill patients is managed by nurses and physician assistants, who are either not trained to do so or are less well trained and can not be expected to adequately manage these types of conditions. There is also virtually no physician supervision of medical care provided by nurses, nurse practitioners, or physician assistants. This is a dangerous practice.

I question the rationale for several of the proposed UTMB recommendations for staffing changes. Specific concerns include:

1. Increasing administrative staff should not be approved unless existing staff are fully engaged at the jail and are not working other non-county UTMB programs.
2. Given the problems with intake screening, reduction of intake nurses and substitution with emergency medical technicians is a questionable decision. The intake screening process should be significantly revamped and improved.
3. Decreasing the ratio of physicians to physician assistants (from approximately 1:1 to 1:1.7) will only increase the unsupervised practice that appears to result in poor outcomes.
4. Maintaining tuberculosis screening staff at four persons is insufficient to conduct screening in the manner stipulated. The County should realistically consider what staffing is necessary and compare the cost of this staffing to the cost of instituting an x-ray screening program.
5. The infirmary staff is grossly understaffed and does not include a physician who is in charge of this unit. This unit should be directed by an Internist. The existing arrangements create liability concerns and are dangerous.
6. The Suzanne Kays facility with over 600 inmates has only a half time mid-level provider. This is inadequate.
7. While nursing is currently understaffed under any circumstances, future staffing is somewhat dependent on correctional practices. Most important of these is the

ability of officers to transport inmates for scheduled appointments and evaluations. If correctional staff maintain current practices in movement of inmates, significantly higher numbers of nurses will be necessary to adequately care for patients.

8. The mental health program staffing consists of a response to security's need to absolutely control inmate housing as well as any movement of the inmate. The lack of appropriate housing for necessary clinical programming as well as inadequate programming results in a staffing plan that is a response to a bad program.
9. The electronic medical record and the continual movement of inmates by correctional classification staff actually increases the burden of work on clinical staff by forcing them to do significant clerical work to look up locations and to re-enter data into the electronic record that has already been captured in a different format. This is a system problem that might be solved by re-designing the system. Alternatively, more staff will be required to address these inefficiencies.

For jails, the most important program elements of any effective health care system are: accurate and early identification of those with medical and mental illness, continuation of existing treatment regimens or initiation of necessary care, and appropriate placement of those with a higher probability of harm if they are housed in general population. With this in mind, specific goals of the Dallas County jail would be the following:

1. Improve the screening of inmates so that those with mental or physical illness are diagnosed.
2. Establish an acute crisis unit for mental health patients that are severely disturbed or suicidal. Admission and discharge to this unit would be by order of a psychiatrist. Movement within this unit would be under direction of a psychiatrist. The unit should allow for establishment of a therapeutic milieu.
3. Create an intermediate (step-down) care mental health unit for disturbed patients and as a transition unit before sending an inmate with mental illness to general population. The rules for entry and discharge and management would be similar to an acute unit but the patient mix and therefore the therapeutic aims of this unit would be different from the crisis unit.
4. Establish an infirmary unit that is managed similar to a skilled nursing unit or an accredited correctional infirmary. This unit should not merely be for protected housing but should include the capability of intravenous therapy for selected patient.
5. Develop and implement a tuberculosis control plan and public health program and develop realistic staffing for that plan.

6. Establish a realistic inmate health request (kite) and sick call process and determine realistic staffing from that.
7. Establish a plan for managing patients with chronic physical and mental illness for persons in general population and similarly develop a staffing plan from that plan.
8. Review the mission of dental care and develop a staffing plan for that purpose.

Policies should be written to accurately describe how these missions will be accomplished and then a staffing plan can be developed. Several general principles should be used in guiding staffing choices.

1. The care of the most complicated medical patients should be provided by Board Certified Internal Medicine physicians, not mid-level providers. Patients with HIV infection should be managed by a physician with expertise in AIDS care. Patients with tuberculosis should be managed by someone with experience in managing tuberculosis.
2. The infirmary unit should include required physician notes on a daily basis for persons who are not in the infirmary for purposes of housing only. All patients in the infirmary should have a physician note weekly, at a minimum.
3. Patient encounters for clinical care should include a physical examination. This will change staffing numbers because it appears that physical examinations are not done for lack of time/staffing.
4. All patients (severely disturbed) on the acute crisis unit should have a psychiatrist evaluation daily (with a note).
5. A PhD level psychologist or a psychiatrist should be the managing director of the acute stabilization unit and intermediate care units.
6. All patients on an intermediate care unit should have a psychiatrist or psychologist note monitoring progress on a weekly basis. If a psychologist is monitoring the patient weekly, a psychiatrist should re-evaluate medication as often as necessary but every month at a minimum.
7. The choice of staff member to pass dose by dose medication should take into consideration the types of patients. For example, if pharmacy technicians pass medications for tuberculosis (directly observed therapy) or for severely disturbed mentally ill, they should receive specialized training in how to monitor side effects and progress of disease and have a mechanism to report their findings to the treating physician. Otherwise nurses should pass medications to this specialized population.

8. The intake function should be re-designed so that early diagnosis with physician evaluation of seriously ill patients occurs promptly after reception. This will reduce overall work and liability to the county. For mental health patients, earlier diagnosis and placement must occur as well.
9. Nurse staffing for the infirmary should be developed in accordance with what services are to be provided on the infirmary. At a minimum, the infirmary should always have a registered on the unit. If intravenous therapy is contemplated on the unit a greater ratio of nurses needs to be present. If all persons with diabetes are to be housed in protected housing in the current "infirmary", then staffing needs to be adjusted so that capillary blood glucose monitoring can be performed on a routine basis. At a minimum, all true infirmary patients should have a nursing note with vitals daily. For infirmary borders (special circumstances) vitals can be ordered less frequently.
10. All sick call evaluations should be performed by registered nurses, at a minimum.
11. Mid-level providers should not be primarily responsible for monitoring the most severely ill or disturbed patients. Their role should be restricted to monitoring stable chronic disease and chronic mentally ill patients, and conducting sick call evaluations as referred from nursing staff and to collaborating with physicians on a team in managing certain individuals (e.g. tuberculosis patients, HIV patients, diabetics, etc.).
12. The process of data input into the electronic record should be evaluated to ensure greatest efficiency of higher cost provider time.

DELIVERABLE #5: *Observe the physical housing accommodations (i.e. use of isolation, physical restraints, etc.) of medical, mental illness patients and mental health services in Dallas County jails and/or other Dallas County detention centers.*

Requirements of a medical and mental health program include identification of and safely housing those who are seriously medically ill, mentally ill, suicidal, in medical or mental health crisis, severely disturbed patients who are not in crisis, and those who have routine medical or mental health problems that require follow up. Where these persons are housed will increase or decrease the likelihood of life-threatening sequelae for individual inmates. The type of housing arrangement is also integral to the treatment for suicidal, severely medically ill, psychotic, severely disturbed patients, and tuberculosis patients.

There are significant physical barriers to inmates' access to mental health and medical care in the Dallas County Jail. Housing arrangements in the Dallas County Jail actually promote deterioration of clinical status. In addition, housing assignments are made for the convenience of the custody staff rather than in order to safely house medically and mentally ill persons. While housing assignment is done for the convenience of custody

staff, the housing assignment of individual inmates makes providing clinical care excruciatingly cumbersome for medical and mental health staff to the point of significantly reducing the efficiency with which they can manage patients. In addition, housing assignments are so unsafe for some persons that they are life-threatening.

Jail cells that are designated for use by medical and mental health patients are assigned by a sheriff's officer as part of classification. There are 4 medical or mental health specialized housing designations: infirmary, suicide, closed behavior observation and open behavior observation. Suicide is a variant of closed observation. A suicide cell is one of the cells located in a tier in which an officer is assigned to monitor. Closed observation cells are single cells in which inmates are locked up 23 hours a day alone. These are mostly used for mental health patients but can house medical patients. Open behavior observation cells are a tier of cells in which inmates are permitted to congregate in the day room during parts of the day; they are used for mental health patients. Infirmary cells are part of a single complex maze of tiers that are close to a nursing station.

The cell assignment process is initiated at intake by the nurse identifying only those persons identified as having a special need with a stamp that indicates suicide, infirmary, closed behavior observation, or open behavior observation. This sheet then is forwarded to a classification officer. In order to assign a cell, the classification officer will simply look up on a computer for an open bed in the designated area and assign the inmate to an open bed. The assignment is made in a matter of seconds. Except for suicide cells and tuberculosis cells all cells within a class are considered equal regardless of where they are located. This is a dangerous practice. For example, several of the closed observation cells of each tier are completely out of sight of the corridors and can only be visualized by walking into the recesses of the tier. Because officers make closed behavior observation assignment without any consideration of acuity, it is only a matter of chance as to whether a severely disturbed psychotic inmate is assigned to a cell where he/she can be easily seen versus a cell that is hidden from view. The officer makes this assignment without understanding or knowing the acuity of the patient. This can result in severely psychotic inmates being out of visual sight, a practice that can result in poor clinical outcomes. It is more important that clinical staff be able to see a patient than it is for custody staff to see a patient because clinical staff are trained to recognize signs and symptoms of mental illness while custody staff are not. No inmates are in continual visual sight of clinical staff.

With the exception of infirmary cells, these specialized cells can change designation at any time at the convenience of custody, based on the number of available cells. These cells are therefore "virtual cells" in that the configuration of open observation cells and closed observation cells is never the same month-to-month and are changed by rearranging cell types by the classification officer on the computer. As an example, if a tier of 13 cells has 4 closed behavior observation inmates occupying cells and another tier of 13 cells has 9 closed behavior observation inmates in it, the classification officer can combine these inmates into a single tier and free up the other tier for custody use. This practice occurs on a daily basis. Thus, patients, especially those with mental illness (even

those severely disturbed), are involved in a potentially life-threatening reassignment process after which mental health staff must continually search and re-search for their patients who are being moved about the jail by the classification staff without any regard for their clinical status.

All of this is occurring in front of a computer screen far away from the site of care and without any consideration from the mental health or medical staff except for the general recommendation to house in a closed observation cell. Because of this situation, mental health staff spend up to 30% of their work day in simply searching for their patients. Needless to say, many patients become lost in this process to the detriment of clinical care.

Closed behavior observation accommodations also have significant and serious clinical consequences. For the most part, all of these types of housing arrangements are anti-therapeutic and may be harmful. Suicide cells and closed behavior observation housing with 23 hours in-cell lock up and the lack of stimulation (especially for those cells out of visual contact) result in extreme isolation equivalent to a super-max prison. These types of arrangements have known to result in psychotic behavior. To use these types of arrangements for known psychotic inmates can only make treatment more difficult and may prolong their disease or increase the severity of symptoms.

Accommodations for the purposes of mental health clinical examinations are equally problematic. There is not a single proper clinical examination room in which a psychiatrist or other mental health staff can conduct a clinical evaluation of a patient. I have never been in a correctional facility where this has been the case. All clinical evaluations are conducted in inmate housing units in the open and without any aural or visual privacy. This arrangement is for the convenience of custody staff. It is inconvenient for officers to have to have to bring these inmates to a remote clinic. There are also insufficient officers to accomplish this even if it were required. Over time, everyone has adjusted to this abnormal situation to the detriment of clinical care.

These types of accommodations also result in a lack of access of inmates to clinical care. The rate-limiting step in obtaining access to inmates for the purpose of clinical examination is the availability of escort officers. For inmates in these closed behavior observation cells (of which there are well over 200 at any time in the North and West towers), all mental health and medical staff must have an officer escort them when they desire to see a patient. For the North and West towers of the Lew Sterritt Tower, there are approximately 20 mental health staff (8 liaisons, 2.5 psychiatrists, 3.8 mid-levels, 5.5 RNs) who compete for the time of 3 correctional officers who are assigned to this escort task. This situation excludes medical providers. Compounding this problem, clinical staff are not permitted to see inmates during meals and shift changes, further reducing time available to see inmates. Only approximately 7 hours per day is available to see inmates for mental health evaluations on a routine basis. Hypothetically, given these constraints, over a 7 hour day, 3 officers continually working would be spending approximately 9 minutes per patient, including the time it takes to open doors and move between tiers and cell blocks and engage different providers who desire their services.

This does not take into consideration the informal coordination amongst clinical staff as they compete for these services. It is, therefore, impossible for clinical staff to adequately assess the numbers of high-acuity patients on a daily basis. Evidence from interviews with clinical staff as well as from chart reviews demonstrates the reality of the lack of interval clinical evaluations even for severely disturbed patients or newly incarcerated patients.

For inmates housed in these closed behavior observation cells, treatment is further worsened because clinical staff are not permitted any contact except verbal contact with the inmate through the food port. If the clinician desires to have the patient evaluated out of the cell, a second officer must be present. This limitation virtually ensures that inmates are rarely, if ever, examined out of the cell. There is no privacy for these encounters. These are humiliating and anti-therapeutic encounters that merely give the psychiatrist an opportunity to perform a partial assessment of the patient. One of the major therapeutic modalities for schizoaffective disorders, for example, is psychosocial interventions. This never occurs. The extreme enforced physical isolation of these patients harms them. Custody concerns are dominant. It appears that the primary clinical consideration is prevention of suicide. Therapy is not a priority.

Accommodations for those inmates in open behavior observation cells are also poor. These arrangements are ones in which inmates can leave their cells and congregate in an open day room for part of the day. These cells are used to house disturbed patients who are not acutely psychotic or suicidal. The acuity or diagnoses of inmates is not considered when making these assignments. The group of inmates who will be assigned to particular cells is purely by chance. This situation can result in bad outcomes. For example, if a schizophrenic psychotic inmate who talks to himself has just been stabilized in closed observation and is being discharged to an open behavior cell, he may be reassigned to an open tier with other inmates with manic disorder, depression or persons who were intoxicated. The mix of patients may result in inmate-on-inmate interactions that are harmful or violent. These units are not supervised in any meaningful way and not under any type of clinical control. There is no group or special therapy on the units. They are merely additional cells in proximity to mental health offices.

For all of the above reasons, correction of treatment of the mentally ill requires staffing changes, changes to the orientation of custody staff toward the mentally ill, housing changes and consideration of deficient officer staffing.

Accommodations for medical patients are not much better than for mental health patients. Some closed observation cells are used occasionally to house a medical patient. For example, female TB patients are housed in North Tower closed behavior observation cells. However, for all remaining medical patients, the only option for special housing is to be housed in the infirmary.

The accepted definition of a correctional medical infirmary is a designated area in which inmates are within sight and sound of a health professional. These units should be managed under written policies and procedures by a Registered nurse, 24 hours a day.

Admissions and discharges to the unit should only occur only under order of a physician. Physician rounds on patients are specified at certain intervals for different classes of patients. A medical record should be available on the unit and that part of the record that is part of infirmary care is separate from the record for the remainder care. These units are typically for inmates requiring skilled nursing care or advanced physician care that does not rise to the level of requiring care in an acute care hospital. The groups of cells that are designated as an infirmary in the Dallas County Jail do not meet these specifications. The cells that are called the infirmary unit are merely sheltered housing in which the most acute medical patients are housed.

The infirmary is a complex maze of nineteen separate housing units, almost all of which are out of sight or sound of nurses. A nursing station and administrative offices are located in a corridor that is surrounded by infirmary cells, but nurses cannot look into any single cell unit from their station. Most of the cells are physically separated from the nursing station by a winding maze of corridors. In addition, nurses must have officer escorts whenever they need to access any inmate. There are three officers assigned to cover the infirmary unit, but at any one time only one is usually available to escort inmates for infirmary movement or clinician visits to the inmate housing units. The officer escort requirement restricts access of staff to patients and creates a barrier on the infirmary unit for clinical care.

Within the infirmary, cell blocks have been assigned for alcoholics, diabetics, mobility handicapped, hearing handicapped, and for other medical conditions. These 14 cell blocks comprise approximately 180 beds. Infirmary housing is treated similar to any jail housing with the exception that it is next to a nursing station so that inmates can, theoretically, be watched more closely. Nurses do not round on patients daily except to visually inspect the cells. Patients place kites (requests for care) rather than have nurses check on them daily, as is the practice in a typical infirmary. The level of services is minimal. There are no specialized policies and procedures for this unit. Nurse staffing for these 180 inmates is 8 registered nurses for all three shifts, equaling approximately 2 nurses per shift, excluding any vacation or day-off coverage. Considering that nurses must distribute all insulin and most medication dose by dose, and that all interaction with an inmate must be accompanied by an officer escort, the barriers to access are so severe that care on this unit is not much different than general population units. Nurses can walk the corridor and look in on people, but clinical interactions are severely limited. For this reason, most monitoring of patients is visual through the glass of the tier, accounting for the dearth of vital sign assessments and monitoring (peak expiratory flow monitoring or capillary blood glucose testing, and physical examination by providers) that should occur on a unit of this type.

The unit does have a clinical examination room in the corridor adjacent to the nursing station, however, most actual clinical encounters are conducted cell side or in the dormitory style cell. The lack of access of nurses to the patients makes using intravenous therapy or any other labor-intensive monitoring or therapeutic care plan very difficult. In addition, the remoteness of some of the cells places potentially ill inmates out of contact with medical staff. Several of the cells are ostensibly negative pressure isolation

cells, important for the effective isolation of infectious patients. However, as will be described later in this report, these cells are not truly negative pressure cells. There is a negative pressure sputum induction room, but it is no longer used for that purpose.

Finally, the current dental unit is not adequate. This unit consists of a single chair and light, both of which are in poor repair. The room is not clean. The only procedure performed is extractions. There is no sink, no equipment except hand tools, and no receptacle for the patient to expectorate in the event this is necessary. The dentist operates with rudimentary tools and equipment. This situation is very crude and inadequate.

DELIVERABLE #6: *Evaluate and analyze the psychotropic drug usage of detainees for effectiveness and appropriateness & review pharmaceutical data and processes (e.g., utilization, cost, comparison of diagnoses to drugs prescribed, etc.).*

I was unable during my two separate visits to the Dallas County detention facilities to obtain any pharmacy utilization data, despite requesting it on both visits. For this reason, I was unable to analyze psychotropic or other drug utilization or the effectiveness and appropriateness of that utilization. Nevertheless, there were several observations that should result in follow-up action.

Patients who come into the jail, who are on medication for chronic illness or serious mental disorders, do not have their medication promptly restarted. The current system is dependent on whether an inmate brings labeled medication into the jail with them (which will seldom happen) and on the review of reminders that physicians perform on a Monday through Friday basis. This type of system will inevitably result in missed medication and delays, especially when an inmate comes in on a Friday and physicians are unavailable until Monday morning.

Also, patients returning from Parkland Hospital often come back to the jail on medication that is not covered on the UTMB formulary. As a result, there may be delays until their medication is re-initiated. The formulary used by UTMB should be approved by the Parkland contract monitor to prevent these problems. In addition, an improved system should be in place to coordinate medical transfers returning from Parkland Hospital to the jail. This will be covered in a subsequent section.

The formulary that exists for psychotropic medication reduces reliance on atypical psychotropic medications and SSRI medications other than generic fluoxetine. While the use of these drugs should be monitored on a continual basis, changing medications that inmates come into the jail on should not be summarily changed until a clinical evaluation has occurred.

DELIVERABLE #7: *Observe the processes for medical intake and assessment (particularly focusing on screening for tuberculosis and other communicable diseases) at Dallas County jails and/or other Dallas County detention centers.*

In 2003, there were 14,874 cases of contagious tuberculosis reported in the United States, with 1,594 (11%) in Texas. Correctional facilities have consistently higher rates of tuberculosis than the free-world population. In Texas, 112 cases of tuberculosis (7% of Texas' cases) were reported from a correctional facility at the time of diagnosis. This is second in the country only to Arizona in terms of the proportion of TB cases diagnosed in correctional facilities. The majority (53%) of reported tuberculosis cases in the United States are now accounted for by foreign-born individuals and approximately 26% of these are from Mexico. Hispanics account for approximately 28% of all cases of reported tuberculosis in the United States. Both of these population groups are heavily represented in Dallas County detention facilities. The expectation is that there would be a high prevalence of tuberculosis in the Dallas County Jail.

Dallas County detention facilities would therefore be classified as high-risk correctional facilities by Centers for Disease Control and Prevention. For a high-risk facility, the Centers for Disease Control (CDC) recommends that all inmates coming into correctional facilities receive screening for symptoms of tuberculosis (cough, weight loss, night sweats, etc.), screening for active tuberculosis disease, and screening and treatment of latent infection when it can reasonably be coordinated with local public health departments upon discharge from the correctional center.

Screening for symptoms consists of asking questions about tuberculosis symptoms (cough, weight loss, night sweats, etc.) of all inmates coming into the facility. Those inmates that provide positive responses would be evaluated by a clinician for other evidence of tuberculosis. Often, this process is linked to public health databases so that those persons already known by local health departments as having TB can be identified when they come into the detention facility. New York jail facilities, for example, have a linkage with the city health department TB database so that inmates who are suspicious for TB can have their TB record checked if one exists. Symptom screening for tuberculosis is not performed in the Dallas County Jail.

In addition to symptom screening, all inmates should be screened for active tuberculosis disease. There are currently two methods for doing this. One method is to perform Mantoux skin tests on all inmates who enter the facility. Those inmates with positive tuberculin tests would then obtain a follow up chest radiograph to assess for active tuberculosis disease. This process requires substantial coordination in order to be effective. Inmates are distributed all throughout the jail after intake. Additionally, they are frequently moved by custody for a variety of reasons and they are often not available in their housing unit because of court or other visits. The skin test process therefore requires that health care staff locate the inmate. After placement of the skin test, the staff must return to the inmate in approximately 72 hours to read the test. If the test is positive (indicating an infection), a follow up chest radiograph must be done to determine if the inmate has active tuberculosis disease.

In comparable jail systems, the proportion of inmates with positive tuberculin skin tests is approximately 15-20%, or higher. This will result in large numbers of inmates requiring chest radiographs. Those with abnormal chest radiographs should be isolated in negative pressure rooms until the diagnosis of TB has been excluded. Because of the time requirements of the screening process (locating inmates, 72 hour delay to read the test after placement, necessity of a follow up x-ray), the skin test method of screening for active disease has been known to take approximately two weeks before an active tuberculosis case is detected and many persons will enter and leave the jail unidentified. This also results in many potential exposures of other inmates and staff.

The principal aim of tuberculosis screening in a jail is to identify infectious persons and to reduce exposure to other inmates and staff. Therefore the inherent delays and inefficiencies of skin testing have prompted some large jail systems to use alternate methods. Some facilities have initiated programs of screening all incoming inmates with a chest radiograph. Cook County Jail, Los Angeles County Jail and Harris County Jail all have programs of using radiographic screening for tuberculosis. At Cook County Jail, the time required for diagnosis of tuberculosis was reduced from approximately 17 days to 2 days using screening radiographs and the numbers of persons identified with contagious tuberculosis tripled.

The Dallas County Jail TB screening program is basically non-existent. Symptom screening for tuberculosis is not performed at any point in the intake screening process. This can be corrected by including symptom screening questions in the intake questionnaire. In addition, inmates are not questioned as to whether they have had a previously positive tuberculin skin test in the past. To screen for active disease, UTMB performs skin testing but does not do this for all inmates and delays the process so that effectively many persons are discharged before the test can be applied, read, or followed up on as indicated. Also, there appear to be errors either in recorded skin test results or in performance of this test.

When the jail health services were operated by the Dallas County Health Department, 13 staff members were assigned to the TB program to screen for active TB disease. This number has been recently reduced to 4 (a nurse, one patient care assistant, and two certified medical assistants), yet they appear to be applying and reading the same number of skin tests as the 13 individuals from the Health Department did previously, although the number of recorded positive skin tests is now dramatically reduced. This simply does not make sense.

The UTMB TB staff work Monday through Friday. They obtain a list from the custody computer of persons who have been booked. The custody computer is used because it can provide the location of the inmates. They do not screen persons unless they have been in the jail for at least 3 days. After identifying those who have been booked and incarcerated for 3 days they go to the inmate's cell and apply the skin test in the cell. This system is not very effective and is evident in reported statistics.

The State Department of Health sent a letter to UTMB in October of this past year warning them that they were non-compliant with tuberculosis reporting requirements of the Health and Safety Code of State Statutes. The jail then began reporting statistics. Despite not knowing the number of active tuberculosis that occurred prior to October of 2004, the jail did report TB skin test data for the past year. These data indicate that for the past eleven months, 27,856 TB skin tests were applied and 22,574 skin tests were read. Of these, only 274 were positive greater than 10 mm. This rate of skin test positivity is approximately 1%, a result that, in my experience, is simply not credible. It can be expected that the rate of skin test positivity would be somewhere between 15% and 25% or higher.

In a discussion with a University of Texas Southwestern (UTSW) Infectious Disease specialist at Parkland Hospital who is head of the Infection Control Department, the employees at Parkland Hospital have a 20% skin test positive rate and house staff (resident physicians) had a 2% positive rate. It is simply not believable that house staff have a greater rate of tuberculosis skin test positive reactions than inmates in the jail by a factor of 2, and that employees at Parkland have a rate that is 20 times greater than the inmates. The jail data are either erroneous or result from bad technique.

In 2000, the Centers for Disease Control from Atlanta, in cooperation with the Dallas County Department of Health and Human Services, used DNA fingerprinting to attempt to see if there were any similarities between tuberculosis cases that had occurred in Dallas County and the surrounding areas in the years around 1998. Not all cases were tested. The study identified a cluster of cases (cases with identical DNA fingerprinting-indicating transmission from a common source) which they called cluster 242. There were 76 total cases in cluster 242. The most common ecology risk factor of potential transmission was having been incarcerated in the Dallas County Jail. The study found that 28 of the 76 total cases in the cluster (37%) had been incarcerated at some point, indicating that the jail was not only a high risk TB facility but that it might be playing a role in amplifying tuberculosis spread into the community. Nineteen of 41 patients whose tuberculosis was infectious at the time of diagnosis either were or had been inmates at the jail, although only 3 of the nineteen were diagnosed at the jail.

This situation appears to be an ongoing problem. From January to October of 2004, Parkland Hospital reported 83 cases of tuberculosis, with 19 of these having had been inmates at the jail at some point and 7 of the 83 were admitted directly from the jail when they were diagnosed. These data reflect that tuberculosis remains a major problem at the jail, that patients with active disease are probably missed by screening and the statistics reported by UTMB indicating a 1% skin test positivity rate are not credible and reflect a broken screening program.

Using the UTMB jail skin test data and jail admission data, it can crudely be estimated that UTMB screens about 30% of incoming inmates but about 70% of those staying more than 5 days. This misses significant numbers of persons. But the test itself appears to be performed so poorly that it cannot adequately screen for pulmonary tuberculosis.

Several conclusions can be drawn. The jail does not maintain accurate statistics for tuberculosis. They do not adequately screen for this disease. This inadequacy results in the jail being a focus of amplification of tuberculosis spread both within the jail as well as into the community at large. Persons with TB from the jail are part of a larger pattern of tuberculosis spread into the community that has been verified by very accurate data.

The problems with TB control extend beyond simply screening for tuberculosis and include the clinical management of disease. In fact, the clinical management of TB disease may be partly responsible for the potential for TB spread within the jail. The jail personnel do not manage patients with active tuberculosis disease appropriately. After persons are identified who have positive skin tests, the nurse refers them to a provider designated as the TB physician. In the recent past, a nurse practitioner was responsible for this function but now a physician has been given this responsibility. This physician has no experience in managing patients with tuberculosis and he has so much else to do that he actually spends very little time managing people with tuberculosis. There is a nursing protocol to perform routine chest x-rays for persons with positive skin tests and the physician is designated to follow up on these, but at the time of my visit there was confusion regarding where the x-ray reports should go and it appeared that over the recent time period there has been no follow up of abnormal x-rays. The physician seemed unaware of any TB protocol for management of active disease. The physician who manages TB does this as an additional assignment and indicated that he has difficulty in getting tuberculosis smears back from the laboratory. In my review of several tuberculosis records, I did not find anyone who had a documented tuberculosis sputum smear in the record.

The records of tuberculosis cases demonstrate significant problems with TB identification and management. One patient gave a history of previously positive skin test at intake. Four days later, a chest x-ray was ordered that was performed 4 days after that (8 days after intake) that showed probable tuberculosis. Cultures were ordered the following day. There were no follow up notes and it appeared that the inmate was discharged from the jail. I could not identify the cultures as done in the medical record. The same inmate returned to the jail seven months later. He told the nurse at intake that he had been treated for active tuberculosis in the past year. He received no other evaluation. Symptom screening for his disease did not occur even though he had a history of active disease. He did not have a review of his prior medical record nor was an x-ray obtained. Either one of these would have identified active tuberculosis. Instead, he was placed on the mental health unit because he had bipolar disorder. Over a week later the inmate coughed up a large amount of blood and was sent to Parkland Hospital where active tuberculosis was identified. There was no contact tracing of the persons exposed in this case and multiple inmates and staff were unnecessarily exposed to contagious tuberculosis and were not tested to see if they had acquired the disease.

A second patient gave a history of HIV disease. There was no intake screening for tuberculosis despite the fact that this inmate had a significant risk factor for tuberculosis (HIV disease). Two days after incarceration, he told a physician assistant that he had been on two drugs for tuberculosis in Fort Worth. There was no physical examination of

the patient. He did not get an immediate x-ray, physical examination, or smears with cultures for tuberculosis. Five days later, without explanation, he was placed on two tuberculosis drugs without isolation. There were no medication records demonstrating that he received the medication. An x-ray was finally done 11 days after incarceration. It showed a cavity suspicious for tuberculosis. He should have been immediately isolated in a negative pressure room until smears were negative for tuberculosis. Instead, he was kept in general population and has been incarcerated for 4 months and has not had a physical examination, tuberculosis smear, or follow up x-ray. This is inadequate management and may result in spread of tuberculosis.

Another inmate did not have a medical intake screening, so I assume that the officers either did not identify any medical conditions or did not screen the patient. No tuberculosis skin testing was done for this patient through the intake process. At one point several months into incarceration, the patient became extremely ill and the illness was not identified until the inmate was in extremis. The patient was admitted to Parkland Hospital and found to have idiopathic thrombocytopenic purpura, a condition that resulted in treatment with high dose steroids. Steroids can cause multiple complications (including tuberculosis) that require that the patient be monitored. At a minimum at the start of his treatment as a baseline, a tuberculosis skin test should have been done. In any case, he had a significant disease for which he should have been monitored. Yet, for seven months since discharge from the hospital, there was only one examination in the medical record. Seven months after return from the hospital, the patient developed 104.6 fever with a pulse of 154 and a respiratory rate of 40. This was an extremely advanced illness. He told a nurse that he had been dizzy and weak for 2 months yet he had not been examined in follow up from his previous hospitalization. He went to Parkland Hospital, where pulmonary embolism and contagious pulmonary tuberculosis were diagnosed. The pulmonary embolism required therapy with a blood thinner for several months. The tuberculosis required therapy with four different medications. The meaning of this is that the inmate either had TB infection when he came into the jail which re-activated while on steroid medication in which case jail intake screening missed this, or he newly acquired TB disease while at the jail. Either possibility is problematic. After six weeks at the hospital he returned to the jail and was placed on a mental health unit. He wasn't examined upon return from the hospital and didn't receive either tuberculosis medication or his blood thinner for approximately three weeks. This was dangerous. For a period of five months he wasn't examined. His anticoagulation (thinning of the blood) status should have been checked monthly but over the five month period was only checked once. The one time it was checked it showed inadequate blood thinning that should have resulted in an adjustment of his medication. There have been no follow up x-rays or tuberculosis smears that should have been done to monitor his tuberculosis disease.

Another patient had a mental illness and arrived at the jail with packets of four tuberculosis drugs from the Austin Department of Health but was sent to the George Allen jail. A nurse at the George Allen jail identified the problem and wrote that the patient "was to be housed in a contagious single cell," so the patient was transferred to a single cell in the North Tower. Initially, the patient was started on only one tuberculosis

drug (INH). Two days after incarceration, a physician from the Department of Health communicated with the jail that the patient should be on at least 3 anti-tuberculosis drugs. The jail records document only two anti-tuberculosis drugs were prescribed. I could not determine how many drugs the patient actually took, but it appears that the patient only took two drugs. The patient's history was that 3 weeks prior to incarceration, the patient was diagnosed with active non-cavitary tuberculosis. Her tuberculosis smears were positive. About ten days after incarceration, after having been transferred to the North Tower, a nurse identified that the patient had not been taking medication since she had come into the jail. Subsequently, the patient agreed to take her medication, but I could not verify that she was taking more than two drugs. A two drug regimen would inadequately treat the tuberculosis and might result in resistant organisms. About six weeks after incarceration, a physician performed the first physical examination of the patient. The patient was described as thin. If her tuberculosis had been treated, she would be expected to gain weight. She no longer had cough. The doctor discontinued isolation but did not do so based on negative smears, cultures or x-ray. In fact, no follow up testing of her tuberculosis has occurred. Her mental illness was never addressed. Two referrals from the physician to mental health were unanswered.

The conclusions from these chart reviews are the following.

- Tuberculosis disease management is inadequate.
- Directly observed therapy (the standard of care of tuberculosis management) does not appear to be the standard at the jail.
- Sputum and culture testing is underutilized at the jail and there is no evidence that most patients get appropriately tested.
- Management and follow up of persons with active tuberculosis disease is not competently performed.
- Patients with serious disease are not examined at appropriate intervals.

An additional problem with tuberculosis management is that there is no Infection Control work that is done at the jail. A nurse practitioner is named as the person in charge of infection control but that is merely because she monitors HIV patients. No real infection control work is being done. Typically this would consist of monitoring and reporting rates of contagious and infectious diseases including tuberculosis, monitoring the negative pressure isolation rooms, performing contact tracing for persons who may have been exposed to an infectious case of tuberculosis, monitoring tuberculosis conversion rates of employees, tracking infections such as MRSA, syphilis, Chlamydia, gonorrhea, HIV, and any other reportable disease.

In this regard, an infection control team visited the jail from Parkland Hospital several years ago and identified that the negative pressure rooms were not actually functioning as negative pressure rooms for several reasons. Doors were imperfectly sealed and included food ports that disrupted containment. Because inmates could set off alarms indicating that the negative pressure was not working, the rooms were disabled. Thus, when inmates are housed "in isolation" at the jail, they are probably not in an effective negative pressure room. This can contribute to the spread of disease.

In addition, if an inmate is diagnosed with active contagious tuberculosis at the jail and has been incarcerated and undetected for any period of time, other inmates and employees who have been exposed to this individual are not tested to determine if they have acquired the disease from the infected individual. This is called contact investigation and is a fundamental aspect of tuberculosis control in any institution and should be instituted. It would be important for employees and inmates who have been infected to be offered preventive therapy for tuberculosis.

The lack of infection control practices surface in other areas as well. The Infection Control chief at Parkland Hospital indicated to me that methicillin resistant staph aureus (MRSA) infection is a significant problem for inmates coming to Parkland Hospital and that this becomes a problem for the hospital because it can spread within the institution and then into the community. Not all areas of the jail consistently report MRSA statistics, but for 5 months during the 2004 calendar year, over 200 MRSA cases were reported per month. This is an extraordinarily high number of cases, even for a correctional facility. In a site survey of the jail, the infection control team at Parkland identified several potential sources of spread. In one area where inmates were strip searched, chairs or other touch items which had potential for skin contact between multiple individuals were not disinfected between use. Hand hygiene for medical staff was very poor due to the lack of sinks to wash hands. The fact that most encounters occur cell-side means that it is virtually impossible to wash hands between patient contacts if such contacts occur. Alcohol based hand cleansers, which are currently the recommended manner of hand disinfection are not used at the jail. Also, it is not clear whether MRSA statistics are based on actual cultures or on presumed infection. This should be clearly stated. I did not have an opportunity to evaluate charts of specific cases, but did notice one episode of supposed MRSA in a record reviewed for mental health purposes.

In that case, a patient in a mental health observation cell, placed a health request for a "huge pimple, spider bite, or staph" on his back. A nurse saw him and wrote that he had a possible staph infection. Without a physician examination or culture of the abscess, a two-week prescription was written for bactrim, an antibiotic. There was no physician signature on the prescription. The wound should have been cultured, and a physician should have seen the patient.

Finally, there is no meaningful sexually transmitted disease screening performed at the jail, even though there are most likely high rates of certain conditions for people coming into the facility. This is a missed public health opportunity. Nationwide, jails that screen for sexually transmitted disease provide a significant public service to their communities in reducing the prevalence and spread of these diseases. This is particularly true for Chlamydia, gonorrhea and syphilis infections. Suspected rates of these diseases should be ascertained in conjunction with the Department of Health and a collaborative screening program should be initiated that is fiscally possible. Currently, intermittent screening of adolescents in the juvenile facilities is being done and for males 1-2% are positive for gonorrhea and 15-20% are positive for Chlamydia. These diseases typically are much higher in the female population. This represents a significant burden of disease.

DELIVERABLE #8: *Review and analyze multiple data sources and conduct interviews with key administration and/or management of Dallas County jails and/or other Dallas County detention centers, which shall include key administration and/or management of the Dallas County Hospital District, d/b/a Parkland Health and Hospital System (hereinafter, "Parkland") for the effectiveness of the similarities and/or connections between levels of care.*

Many local agencies have the potential to interact with jail staff to improve care for inmates at the jail. In the Dallas County Jail, there is a failure to establish viable linkages with these key groups. This is a dropped opportunity to improve services. Most of the agencies we interviewed indicated that they felt there was no outreach from UTMB to them and that the relationship could be improved. There are almost no interactions between the Dallas County Department of Health and UTMB regarding public health issues at the jail. While Department of Health staff continue to visit the jail to perform minimal sexually transmitted disease outreach, this work does not seem to be coordinated with UTMB staff to try to improve effectiveness. Administrative staff at the Department of Health indicated that UTMB staff do not communicate with them.

Parkland Hospital has a case manager at the hospital who is assigned to case-manage inmates. There are regular meetings between Parkland and UTMB, but issues of critical importance such as tuberculosis at the jail, multiple re-admissions for selected patients, or communications on other seriously ill patients seem not to be part of these regular meetings. Including a collaborative clinical review of problem cases in the format of a clinical conference may be beneficial, particularly to the jail staff.

Large numbers of inmates with mental illness are enrolled in NorthSTAR, the coordinating agency for mental health providers who care for the mentally underserved in the greater Dallas area. For the first four months of 2004, 31% of the inmates referred by officers to nurses and subsequently referred on for mental health evaluation and treatment in the jail were NorthSTAR enrollees. Nearly 70% of the NorthSTAR-enrolled inmates in the jail are served by one provider, Dallas Metrocare Services. Based on interviews with staff, this organization has both empathy and interest in the jail population. They have assigned 2 case-workers to the jail to identify NorthSTAR members in the jail and to serve as the case-managers for all NorthSTAR clients while they are incarcerated. These individuals perform social work services for inmates while they are incarcerated, attempt to arrange for aftercare when inmates are discharged and are involved in attempting to facilitate information transfer to jail personnel regarding prior treatment their clients had received at NorthSTAR clinics. Because such a large percentage of inmates are cared for by this organization, and because of their clear dedication to the population, I would strongly recommend a greater role for them in the mental health program for this population. One of their programs, the Special Needs Offender Program (SNOP) is specifically meant for mentally ill prison offenders who are discharged to the community and is a potential resource for discharged inmates.

An area where many organizations have attempted to collaborate in reducing the numbers of persons incarcerated with mental illness is Project Divert. This jail diversion program is a voluntary program in which recently booked inmates who have a mental illness are identified as such and redirected to mental health programs in lieu of incarceration. Three barriers exist to improving the numbers of clients involved in this program: the criteria for patient selection based on the criminal charges is said to be too restrictive, many of these persons may be homeless and unless housing is part of the aftercare arrangement recidivism may not be reduced, and lastly, inmates must be enrolled in NorthSTAR in order to participate.

Of inmates with mental illness entering the jail, only approximately 31% are enrolled in NorthSTAR. NorthSTAR is the equivalent of a managed care organization for the poor with mental illness. Even though inmates are potential clients of NorthSTAR organizations, inmates who are not already enrolled in NorthSTAR are excluded from the diversion program, reducing potential clients by up to 70%. The exclusion of almost 70% of inmates from this program creates a situation where those who may most benefit from diversion are excluded by virtue of lack of having a mental health provider. Project Divert aims to serve the population of persons with serious mental illness (schizophrenia, bipolar disorder, etc.). These persons by virtue of their disorder (and possibly combined with homelessness) are less likely to be organized enough to enroll in any type of ongoing mental health treatment. Consideration should be given to opening up the diversion program to anyone with serious mental illness, regardless of whether they are already enrolled in a mental health program and to enrolling them if accepted into diversion. The effect of the current system is to ignore a large segment of the mentally ill; those who have no mental health coverage or provider. This is exacerbated because there is no advocate group for the uncovered, uninsured inmates with mental illness. The Dallas Area NorthSTAR Authority (DANSA) is chartered to be an oversight authority over mental health care in the greater 7 county area. However, they do not believe that their oversight extends to inmates, even though inmates reside in the seven county area over which they have authority. The effect of this perception is that inmates not enrolled in a NorthSTAR mental health program (which is 70% of the inmates) do not have the benefit of the oversight of DANSA and do not obtain the benefit of diversion.

DELIVERABLE #9: *Assess the existence of chronic disease management, specifically observing and analyzing the first five (5) days of incarceration for ER utilization.*

Inmates with chronic diseases, if identified, are primarily managed by nurses. As discussed previously, many inmates with medical conditions are missed at intake screening. Those who are identified with chronic disease and are on medication have their diseases and medications listed on the Central Intake Evaluation Form. These are sent to clinical areas and reviewed by nurses. The expected prevalence of chronic illness in correctional populations exceeds the number of persons screened by the nurse in intake. Thus, an unknown number of persons with chronic disease are missed at intake but can be conservatively estimated at 10% of incoming inmates.

On medical units, nurses enter all data of persons who require medication into the electronic medical record and reminders are sent to physicians for those who are on medication so that the doctor can prescribe medication. One exception to this process is persons with epilepsy, for whom intake nurses typically call the doctor for a verbal order for a prescription. However, this process for all the rest of the inmates with chronic disease results in frequent delays of medication. For example, if a person comes in on Thursday evening and a nurse writes a reminder to the physician on Friday, the physician may not get the reminder until Monday and the patient may not get their medication until Wednesday. The inability to promptly get medicines ordered is a significant problem and was evidenced in chart reviews. The lack of continuity of medication along with the absence of physician evaluations can only promote deterioration of clinical status ultimately resulting in unnecessary hospital and emergency room visits.

Persons with chronic illness should be examined by a physician to determine the clinical status of their disease. The process of arrest and incarcerations is disruptive for the inmate. Frequently, when they are arrested they will not have their medication with them. They may not have had consistent care in the community. Thus, their disease status may have deteriorated from a usual state or may not be in good status. For these reasons, it is important that inmates with chronic disease see a physician who knows how to manage the illness they have. This does not occur at the Dallas County Jail.

At intake, if an officer sends an inmate to the intake nurse, the nurse does only a brief assessment. The main function is to decide if the patient requires hospital admission or special housing. The nurse will send persons with diabetes to the infirmary, pregnant women to the Allen Center, and persons with disabilities to the infirmary. Based on the nurse's judgment of the acuity of the patient, an inmate may be sent to the infirmary for monitoring. But there are only approximately 180 beds in the protected housing infirmary unit. If 20-30% of inmates have some form of chronic illness that means that well over 1000 persons with some type of chronic illness are housed in the remainder of the jail facilities.

The method of monitoring these patients is poor to non-existent. Their disease, including medications, is listed on the intake form and delivered to the nurse's station in their new housing unit. Subsequently, the nurse will review the sheet, send a reminder to the physician for medications, and make a judgment about whether the physician needs to see the patient. The physician will review the electronic reminders and the electronic record charts of patients referred by the nurse. This can be a large number of charts. I was told that this is between 30 to 60 records but can be as high as 100. Of these, the physician may see between 10 to 15 patients a day. In this system, therefore, physicians are only seeing a fraction of the persons with chronic illness accounting for the virtual absence of physical examinations discovered on chart reviews. This is a significant lack of access to care. In discussing chronic disease management with one of the physicians he indicated that for chronic disease charts from intake he will only pick the most severe cases to evaluate. He said mostly nurses manage these patients and he oversees through emails. Most of the 10-15 patients he sees are actually not patients with chronic disease but are episodic problems (back pain, boils, etc.). Of the 10-15 patients he sees he estimated that

about 3-5 have chronic disease. He does very little lab testing on chronic illness patients and, because of the infrequency of visits, when he does prescribe medication, he orders prescriptions for 12 months.

There are no policies, procedures or chronic care guidelines that are used in the management of chronic diseases. There is no mechanism to track individuals who have a chronic illness, there are no required interval visits, there are no required laboratory tests used to monitor individuals with chronic illness, and there is no mechanism in place to assign acuity to patients with chronic illness. Therefore, management of these individuals is similar to that of all other inmates. Inmates with chronic disease are seen when their condition deteriorates to an urgent status while the others usually are discharged prior to being seen. This type of system, as evidenced by chart review, results in disease deterioration to the point of requiring hospitalization in multiple individuals. Management of chronic diseases mostly consists of physicians reviewing the electronic record of nursing notes describing interactions with the patient. Very few persons with chronic illness are actually physically examined.

Even when persons are hospitalized, upon their return they are not usually examined. Their record may be reviewed but, based on chart reviews, it is not even clear that this is occurring. This lack of attention to persons with very problematic disease results in repetitive hospitalizations that, with sound ambulatory management, would be prevented. Review of selected diseases illustrates the manner in which chronic diseases are managed at the jail.

Asthma and hypertension are typically the most prevalent chronic diseases in the correctional populations; asthma being more prevalent in the younger population with hypertension becoming more prevalent as the population ages. For asthma, monitoring of symptoms and peak expiratory flow rates are standards of care. Yet this is not done at the Dallas County Jail. At intake, a pulse oximeter is used to evaluate persons with asthma, but this test is not a useful monitoring test for this disease. Nurses at intake will not provide an asthma rescue inhaler unless the oxygen saturation is abnormal, but this test would not be abnormal in an asthmatic until the patient was so ill as to require intubation. This is a bad practice that should be discontinued. Although peak flow meters are present in the jail, I did not find a single instance in which they were used. One patient who had ten admissions to the hospital for out-of-control asthma was clearly not getting his prescribed medication as ordered.

A nurse practitioner manages all HIV disease at the jail. She has about 100 patients on her caseload with HIV infection at any one time and about 30% rotate out of the jail weekly. At intake, the medications get noted and the nurse assigns the patient to an HIV tank or to general population if the inmate wants. There is no female HIV tank. The HIV tanks are in the west tower on the 5th and 6th floors and are usually full. The intake nurse assigns housing. After patients arrive on the floor, as with other patients, the nurse will write an email to the nurse practitioner documenting the arrival of the patient on the floor. Nurses will also email to her regarding other problems the HIV patients have. She gets about 40-50 emails a day. There will be 5-10 new patients a day.

Patients with chronic illness, including HIV, are usually not examined in a clinical examination room. They are mostly evaluated cell side. So, similar to mental health clinicians, the nurse practitioner must first locate her patients. The first task in the morning is to identify from the correctional computer the list of persons housed in the HIV cells and she compares that to her existing list to identify new persons. Her interaction with new patients is a cell side interview. If they know what their CD4 count is and seem to know a lot about their disease, she will start medication. If not, she will check with their civilian provider. She may do an HIV test to verify HIV positivity. Most people get medication in a week to 10 days.

She sees as many people she can. She thinks she sees all patients who remain at the facility by the end of week. Inmates are permitted to keep their HIV medication on their person. There is a state program in existence that supplies HIV medication for a small co-pay fee available to inmates, but it appears that this program is not accessed. She does not use UTMB's telemedicine service, even though it is available. She works on her own. There is no medical supervision over her work. When she is off on vacation, the coverage doctor is a retired surgeon who has no experience managing HIV patients. He was not trained in HIV management but the nurse practitioner told me that he has a "John's Hopkins HIV book," so at least he has a reference. She works with doctors at the Amelia Hart clinic at Parkland when she has a problem and calls them about 2 times a month.

Because of the large caseload of patients, the difficulty in finding and interviewing patients and because she does not work every day of the week (she works only Monday through Thursday), people are not re-started on their medication promptly after incarceration. This can be a problem in promoting resistance. Not all individuals are examined thoroughly and physicians are not involved in the management of persons with this disease. Management of patients with HIV is relatively complicated due to the variety of opportunistic infections that can occur and because of the complicity of drug interactions that exist for HIV medications. In addition, the choice of what medications to use is complicated. For these reasons, it is recommended that an HIV expert be involved in the management of all patients with HIV infection. This does not occur. The nurse practitioner can call a physician if she wants, but this occurs for only a small number of patients. UTMB had plans to utilize telemedicine for HIV care but this has not materialized. HIV patients at the jail used to be followed in the Amelia Hart clinic, a Parkland/UTSW staffed HIV clinic, but this is no longer occurring. Currently, persons with HIV do not have adequate access to a physician.

Insulin dependent diabetics must be housed in the infirmary. There are several infirmary tiers in which they can be housed. Patients on the infirmary are followed by a nurse practitioner. Very few of these patients are ever physically examined by a doctor. Almost no one gets a hemoglobin A1c, a blood test that is commonly used to monitor long term control of diabetics. A surgeon who provides coverage is the responsible physician for the unit, even though most of the patients have Internal Medicine problems. Even if a physician were available to see patients, access to those patients is extremely

poor. During daytime hours, three officers are assigned to the infirmary. One is engaged in transporting inmates, one is assigned to the officer station and only one is available for escorting inmates to the examination room. Effectively, this prevents anything but cell side visual inspections through the glass wall for most patients. Clinical staff are not permitted access to inmates except with an officer escort. Because there are so few officers, very few individuals are examined or evaluated. During evening shifts there are fewer officers and the situation is worse. Thus, the housing unit into which the most seriously ill patients are sent has barriers which prevent examinations, evaluations and treatments resulting in poor outcomes. Chart reviews demonstrate the lack of physical examinations even in seriously ill patients.

The nurses that I interviewed verified problems with getting patients seen on the infirmary unit. There are occasionally problems with even getting inmates to the nursing station. On some days, no inmates are brought out for vital signs. For example, nurses monitor persons with potential for withdrawal with vital signs at regular intervals, but nurses often have trouble getting to these patients. The mix of staff on this unit is also not appropriate for an infirmary unit with large numbers of patients with significant chronic illnesses. UTMB is actually redesigning the staffing ratios to less well trained staff (patient care attendants and assistants instead of nurses). Some assistant staff are useful and cost efficient, but the proportionate decrease in nurses capable of performing assessments on a unit of this type is not prudent from a clinical perspective.

DELIVERABLE #10: *Assess the potential for reduction of transfers from Dallas County jails and/or other Dallas County detention centers to Parkland for tests, specialty care, inpatient admissions, etc., review a sampling of medical records for adherence to AHRQ national quality indicators and review aggregate utilization data for clinic, emergency, diagnostic, and inpatient transfers.*

Utilization review of off-site medical consultation and hospitalization, if done at all, does not result in any aggregate reports or conclusions. UTMB does not maintain a utilization log of transfers to Parkland. This information is only available from the correctional officers transport log. Information is also available from Parkland Hospital on the number of hospital admissions, including the number of days for each admission and a diagnosis. Also available was the Parkland Hospital Ambulatory Services Case Management Program report detailing the number of scheduled and actual visits of inmates to multiple clinics and specialty testing services. Several conclusions can be drawn from this limited data.

For a one-year period (December 1, 2003 to November 30, 2004), there were 309 hospital admissions (25.75 per month) for a total of 2,182 hospital days for the year, or 181 days per month. The average length of stay is 7.06 days per patient. Of these 309 hospital admissions, 37 exceeded 15 days length of stay and 8 exceeded 30 days length of stay. This is a long length of stay for many admissions and reflects persons being admitted with late stage of disease necessitating longer hospital stays. This information is consistent with findings on chart reviews in which inmates did not receive timely care

and ultimately required hospitalization with more serious disease necessitating longer hospitalization.

The Agency for Healthcare Research and Quality (AHRQ) is a Federal agency that has developed a set of measures that can be used with hospital inpatient diagnosis data to identify potential preventable hospitalizations and thereby assess the quality of ambulatory care. Using these indicators with the addition of 3 other diseases that are usually preventable (fluid overload with end-stage renal disease, encephalopathy, and cellulitis) some potentially preventable hospital days are identified. Cellulitis, in particular, is a problem condition at the jail and may indicate hygiene conditions as well as lack of early referral for evaluation of minor infections. Using these diagnoses as indicators of ambulatory care at the jail is useful as a way to improve the quality of care at the jail as well as reduce unnecessary hospitalization. These potentially preventable days amount to approximately 22% of hospital days and indicate that there is considerable room to improve ambulatory care.

DIAGNOSIS	ADMISSIONS	HOSPITAL DAYS
CELLULITIS	40	262
ASTHMA	11	86
CHF	9	34
HYPERTENSION	4	26
GANGRENE	3	11
SEPSIS	3	48
FLUID OVERLOAD ON DIALYSIS	2	5
ENCEPHALOPATHY	2	9
KETOACIDOSIS	1	5
TOTAL	75	486

Of some concern is the large number of cases exceeding fifteen days. These should be reviewed to assess whether problems at the jail are deteriorating to the extent that inmates are going to the hospital at a later stage of disease or whether the ability of the jail to accept inmates back on the infirmary is adequate. Several charts that I reviewed documented care given to patients who were re-admitted multiple times for the same condition, indicating a failure to follow-up with an adequate management strategy, necessitating repeated and unnecessary admissions. These types of preventable admissions indicate poor quality of care, but also result in excess cost for the hospitalization as well as for the security staff that must guard the inmate while hospitalized.

Despite the opportunities that exist to review existing data to try identifying unusual trends, reducing hospital stays and improving quality, there is no data that is used by medical staff to review, in aggregate, the types of clinical cases that are being transported to Parkland Hospital for hospitalization or specialty services. Parkland Hospital

maintains this data, but, to the best of my knowledge, there is no communication between Parkland and jail staff to discuss utilization or any other issues.

Off-site appointments for specialty services mostly occur at Parkland Hospital clinics. Typically, this type of data would be reviewed to identify trends in specialty care that may indicate system problems with health care delivery, or to identify trends in specialty care so that specialized care might be brought on-site. In addition, review of these data assists in identifying ways to reduce transportation to local area hospitals and specialty clinics by improving the array of services onsite. Information from Parkland Hospital shows that, for a year's worth of specialty appointments, inmates show up only 66% of the time. Whether the inmate was still incarcerated is not identified. This type of data could be used in a combined Parkland/Jail Quality Improvement manner to improve overall show rates and identify why inmates are not arriving for their appointments.

Telemedicine equipment does exist at the facility and could be more fully used to reduce hospital trips. Telemedicine was used with Parkland previously for orthopedics, emergencies, and for HIV care. The extent of that use was not clear. Now no telemedicine clinics are done.

In order to get a better sense of what problems existed with ambulatory care at the jail, I reviewed several charts of persons who had admissions to the hospital that had a higher likelihood of being preventable. Because there was no clinical data available on hospitalizations from UTMB staff, the officer's transportation log was used to identify cases. The cases chosen were randomly chosen from only two months of recent hospital admissions. These reviews demonstrate that there are significant jail ambulatory care management problems and many preventable hospital days as well as clinical quality issues.

One patient didn't have his chronic illnesses identified for over 6 weeks after intake despite having many abnormal symptoms, vital signs, and clinical manifestations. After he finally was clinically examined, multiple laboratory tests were ordered on two different occasions several days apart, none of which were evaluated. For one of the laboratory results, the chart documents that the laboratory had called to notify the jail that the laboratory result was a critical value. Still the patient had no physical examination follow up or follow up of his laboratory tests. Several days later the inmate was unable to breathe, was admitted urgently to Parkland and died.

Another patient had several problems. One of his problems was hyperthyroidism. This condition causes a fast pulse when it is inadequately controlled. This patient had a fast pulse for over 9 months and his hyperthyroidism was basically not controlled or even appropriately evaluated for almost a year. During this same time period, he developed a leg infection that was complicated because he had diabetes. The infection was so poorly managed that it necessitated 10 separate hospital admissions for 53 hospital days over a 6 month period. There were periods during this time when he was not even examined while at the jail. This form of systemic incompetence was an extremely costly series of preventable hospitalizations in addition to the clinical consequences to the patient.

Another patient had a history of severe asthma for which he had been intubated five times in the past when he was a civilian. This indicates a very high-risk patient. This part of his history was not picked up at intake screening. Medication he said he customarily took was not provided to him for several days. When he did receive medication he only received some of his medications. Over a three month period he had six separate hospital admissions totaling 41 hospital days along with five other emergency room visits necessary to manage his out-of-control asthma. Despite these repeated life-threatening asthmatic emergencies, he was examined at the jail by a physician or physician assistant only twice over a three month period. Peak flow monitoring, which is the standard method of monitoring patients with asthma was not performed at the jail except once. That single episode occurred when Parkland Hospital sent a peak flow monitor back with the patient along with his medications. In fact, the jail does have peak flow monitors but never uses them in the evaluation of asthmatics. This costly and potentially life threatening series of episodes was probably entirely preventable.

Yet another patient had a history of hypertension, prior tuberculosis and heart disease taken at intake. The intake screening missed the fact that he had advanced cirrhosis and probable mental status alterations. His care was provided by physician assistants (one a medical physician assistant and another psychiatric physician assistant). The patient was examined initially by one of the physician assistants and given medication appropriate for someone with cirrhosis of the liver but the examination was not thorough and the documentation in the record did not have sufficient information to determine what exactly was wrong with the patient and why the physician assistant had treated the patient in the manner that was done. Shortly after that, the second physician assistant (the psychiatric one) diagnosed organic brain syndrome and prescribed haloperidol a major psychotropic medication that has only marginal indication for this condition. In addition, because the patient had cirrhosis, the haloperidol was contraindicated. The patient wasn't evaluated again for about 3 months when he had collapsed. Initially, the nurse called a mid-level provider who recommended that the patient be monitored. What this meant was not clear from the documentation. He was sent to the infirmary. There is nothing in the medical records that documents monitoring of any kind. The next day the patient was admitted to Parkland Hospital. There was no examination or note in the record to describe what had happened. He returned from Parkland about 2 weeks later and the notes by jail physicians do not clearly describe what his medical condition is or what had occurred at Parkland or what had occasioned his admission. One note indicated that the medical staff were trying to get him into a nursing home. He had yet to receive a physical examination (almost two months) since discharge from the hospital at the time I reviewed the medical record.

Several conclusions can be drawn from these examples.

- There are many preventable hospitalization days that are both costly and result in liability exposure to the County and UTMB.
- The lack of competent physician intervention in the care of seriously ill patients is extreme.
- Patients seldom are physically examined when necessary.

- Patients returning from the hospital are never examined upon return in a timely manner, if at all.
- Providers do not appear to review past medical records as they evaluate patients. If providers are only focused on what they may be doing or what they have done, they will miss important information documented by other providers. Seldom does a patient see the same provider. In this sense, the electronic record appears to actually be a barrier to continuity of care.
- The quality of medical care is extremely incompetent.

Contract monitoring by Parkland Hospital is effective for several reasons. UTMB does not fully disclose information that is necessary to evaluate program success. Financial data is not provided by UTMB to Parkland. Performance objectives are described so generically as to be not useful to perform program evaluation. In addition, the system of care is not accurately and honestly addressed in these evaluations. For example, "Intake Mental Health Referrals" is a performance objective and is listed as "target met." This indicator is meant to measure whether any inmate needing psychiatric care is examined within 7 days for routine care. However, because "many inmates are released before mental health staff can access them," the review considered that the target was met. This assessment, however, ignores the fact that the kite system and referral system is so broken that few if any patients are seen via the referral process. To consider that performance is adequate because patients are discharged before being seen is not accurate.

Similarly, the "Intake Screening" performance objective is meant to measure whether inmates referred to health services during intake screening receive a central intake evaluation. This received a "target met" designation implying that persons with medical conditions are evaluated via the intake process. Virtually none of the patients with chronic illness received an adequate evaluation as evidenced in chart review. The indicators miss the point. There has been an absence of review of critical cases in order to identify problem areas.

**RECOMMENDATIONS FOR IMPROVING MEDICAL
AND MENTAL HEALTH SERVICES AT
DALLAS COUNTY JAIL**

1. Medical autonomy must be established at the jail over medical programs meaning that access to all medical and mental health units should be under control of clinical staff and clinical staff should be the final decision makers on any clinical decision. Inmates with severe illness, particularly mental illness, should not be moved at the discretion of classification staff. This is best accomplished by establishing specific units for crisis management patients as well as an intermediate care mental health unit.
2. Monthly meetings that are formal and have minutes should exist between custody staff and medical staff to identify problem areas of concern. These problem areas should be studied and improvements attempted through a quality improvement process.
3. A set of policies and procedures that realistically and practically describe the practices at the jail should be developed, trained against and established at the jail. These policies should be produced by medical leadership staff in collaboration with other key staff members. For some policy, the correctional leadership will have to participate and agree to the policy (e.g. intake screening, transportation, etc.). These policies should include the Sheriff's (or designee) signature as acknowledgement of acceptability. Unless the Sheriff's staff support these policies they will not work.
4. If the current arrangement with a medical vendor continues (and that should be thoroughly assessed), Parkland Hospital should create an audit system that very specifically audits against contract expectations including clinical indicators for care. These audits should be performed at specific intervals and would be a major mechanism of contract monitoring. Monthly reports of key service areas (number of inmate requests, number of requests seen, skin tests applied, etc.) should be reported from the vendor to the contract monitor. The monitor should determine what the scope of these reportable items.
5. All staff assigned to this contract should be fully engaged in providing services at the Dallas County Jail and the services delivered should be clearly delineated in the contract budget. A staffing plan, including credentialing requirements, should be agreed to by the County. A system of quarterly adjustments should reconcile approved over use of staff or under use of staff and would be reflected in subsequent payments.
6. Medical staff should perform intake screening.
7. Medical screening should be conducted with aural privacy. Examinations should also be conducted with visual privacy.
8. Medical screening should result in continuation of medication for inmates within 24 hours. For persons on insulin, therapy must be continued immediately.

9. Screening evaluations should all be included into the medical record, whether they are performed by correctional staff or medical staff.
10. An automatic system of referral should occur for any inmate with a mental health or medical condition identified at intake that results in a physical examination by a clinician appropriate for the level of illness. For mental health evaluations, this will mean bachelor level or higher persons screen and refer complicated to a psychologist who can complete the evaluation for complicated patients. For medical patients a physician or physician assistant should evaluate and examine patients with chronic disease early (1-3 days of booking) depending on the level of acuity of their illness.
11. A crisis stabilization unit should be established for housing suicidal and severely disturbed mental health patients that creates a permanent and fixed housing arrangement for inmates until such time that they are discharged from the unit by a clinician authorized to do so. Admission to this unit should be by a licensed psychologist or a psychiatrist. Correctional staff must oversee security so that the unit is secure but within those security restrictions, mental health leadership should have authority and autonomy to establish a unit with a therapeutic milieu so that inmates can be housed in a therapeutic manner. This unit should include daily rounds by a psychiatrist and or psychologist and be monitored by mental health staff on a continual basis during day and evening hours.
12. An intermediate mental health unit should be established in order to house inmates with severe mental illness who do not rise to the level of the acute stabilization unit. The oversight and rules on this unit should be similar to the acute unit except for the indications for admission.
13. A correctional infirmary should be established that includes clinical autonomy similar to the mental health units described above. This unit would include unimpeded access to examination of inmates, daily rounds by physicians and nurses with documented notes, and a level of staffing commensurate with the desired goals of the jail. A Board Certified Internist should manage this unit.
14. Sufficient clinical space should be identified so that there are sufficient clinical examination rooms to examine patients.
15. Establishment of a chronic disease program that include Board Certified or Eligible Internist or Family Practitioners who manage patients occasionally transferring care of less complicated patients to mid-level providers who assist them. This type of program is best performed as a team with physicians, mid-level providers, nurses and clerical staff working as a team. This program should include chronic care guidelines specific for the commonest illness at the facility and the ability to track, and examine inmates on a regular basis or as often as needed in order to manage their chronic illness.

16. All sick call requests should be scanned or otherwise incorporated into the medical record.
17. The system of sick call should be staffed so that routine clinics can be timely accomplished. Mid-level providers or physicians should see patients and examine them in clinical settings appropriate for a clinical examination. Statistics should reflect the number of requests submitted with the date, the date of first evaluation and the date of follow up referral examination.
18. A system of confidential transfer of inmate health requests from inmates to health care staff should be instituted. This is most often done by installing locked boxes in which inmates may drop their health requests. Health care staff pick these up. This eliminates custody staff from any involvement in the process except to give inmates blank forms and writing instruments if they do not have them.
19. A system should be established so that medical patients on mental health units are seen and examined and mental health patients on medical units are seen and examined.
20. Symptom screening for tuberculosis should be instituted.
21. The screening for tuberculosis with skin testing should be improved so that it is effective or consideration should be given to instituting chest x-ray screening of all incoming inmates.
22. TB and HIV management should be under the direction of a physician knowledgeable and experienced in the treatment of these diseases.
23. An infection control program should be established that tracks, contagious and infectious diseases, reports appropriately to the Department of Health, ensures reasonable contact tracing via an exposure control plan within the facility, and establishes appropriate blood borne pathogen and other infection control policies and procedures. This program should use the expertise of Parkland Hospital, UTSW and the Dallas County Department of Health and should develop linkages to these organizations in the follow up care of their patients.
24. Negative pressure isolation rooms should be inspected by a someone certified to do so on a regular basis and maintained so that true negative pressure is assured.
25. Management of methicillin resistant staph aureus (MRSA) should be reviewed and improved. Consultation should be obtained in this area. Significant improvement of the hygiene of the facility will be necessary to thwart this important and emerging pathogen.

26. Strong consideration should be given to screening selected persons for sexually transmitted diseases in conjunction with the intake process. This should be developed in coordination with the Department of Health and, if they are willing, the UTSW/Parkland.
27. The process of nurses and liaisons providing front line evaluations of inmates is burdensome due to the lack of correctional staff to move patients for appointments. It should be established whether increased officer escort staff will be available. After that is done, an assessment of nurse and liaison staffing should be done so that there is sufficient staff to evaluate inmate health requests and conduct preliminary evaluations. Obviously, the system that is mutually agreed upon by corrections and medical and mental health staff will have a bearing on staffing considerations.
28. Problems with data entry and management in the electronic record should be identified and studied through a quality management process. All patients should be seen with a medical record. Because the record is electronic should not prohibit this from occurring. Policy should be developed that delineates how clinicians shall use the medical record.
29. The medical vendor should develop a written strategy (codified in policy) for the contractor (County) specifying what the operational procedure will be in the event the electronic medical record becomes disabled. There should also be defined in writing an exit strategy that defines the condition and format of records upon termination of the contract with the existing vendor or in the event the software becomes unsupported.
30. Consider utilizing the MetroCare organization in collaboration with the Department of Psychiatry at UTSW to assist in organizing and staffing the mental health programs at the Dallas County Jail.
31. Pharmacy services should be evaluated. All prescribed medications should be delivered within one to two days. Barriers to this should be identified and corrected.
32. Utilization should be monitored in collaboration with Parkland Hospital. Patterns of hospital admissions should be studied for trends in order to make improvements that reduce overall hospitalization. Specialty service trends should be analyzed in order to identify frequently used services so that those services can be brought onsite, if possible, in order to reduce unnecessary transportation of inmates. In this context, telemedicine is underutilized.
33. Mortality review should be instituted for all deaths. Under the current circumstances, this is best done by outside experts. This is probably best performed by Parkland Hospital as they are responsible for monitoring the

contract and could bring expertise to the evaluation. This should be done in the format of a mortality review committee to which jail staff participate.

34. The jail should consider accreditation by the National Commission on Correctional Health Care as this accreditation would help to structure reforms.
35. All inmates transferring from another facility or returning from hospitalization or off-site specialty appointment should be examined by a physician with a day to ensure that prescriptions and follow up care is initiated.
36. The mission of the dental program should be reviewed and augmented. If available, a licensed dentist from Parkland or the medical school should review the dental equipment and dental operatory and advise the jail on how to improve the existing dental facility. Probably this unit should be rebuilt with adequate equipment.
37. A request should be made so that inmates with mental illness can initiate enrollment into NorthSTAR upon incarceration.
38. Dallas County Jail mental health leadership should continue to be involved with the County in assuring the success of the mental health diversion program.