

## Appendix Q – Data Book

### SECTION A – Introduction and Basic Information

As part of the Michigan Department of Corrections (MDOC) RFP 07118200193 to provide prisoner health care services, which includes all MDOC correctional facilities, camps, Special Alternative Incarceration (SAI), and Re-entry Centers, this supplemental data (narrative and models) is being made available to prospective bidders. The data supplement contains various utilization and cost information for costs incurred in Time Period 1 (4/01/05-3/31/06), Time Period 2 (4/01/06-3/31/07), and Time Period 3 (4/01/07-9/30/07). It is intended that the information shown in this data supplement will aid potential bidders in the development of per prisoner per month (PPPM) rate bids.

Bidders are to submit PPPM rates based on the five (5) levels of inmate acuity shown below. The definitions and criteria of the acuity levels are provided in the RFP in Appendix H.

<b>Acuity Level</b>
A – Non Medical Camp
B – Medical Camp or Facility (low level medical)
C – Low Level Medical Facility Only
D – High Level Medical Facility Only
E – Inpatient (Special Needs) Medical Setting

The PPPM rate is composed of a broad variety of healthcare services including both on-site and off-site care. This data supplement provides historical utilization and cost values, as well as a series of adjustments made to the data and assumptions the MDOC believes bidders should consider when preparing their bids.

The historical data is provided for three time periods on a statewide basis for evaluation of overall utilization and claim cost trends. This data is discussed and presented in Section B. A discussion of trend rates, including issues that MDOC believes are important for all bidders to consider, are shown in Section C. Acuity based data is provided for Time Period 3 and is discussed and presented in Section D. Section E contains miscellaneous information that a bidder may find useful.

Any additional data the MDOC decides to release based on either subsequent analysis performed by the state or a specific topic addressed by bidders in the question and answer periods will be released via posting on the DMB website as an attachment to the RFP.

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### SECTION B – Base Period Data

The base period data is defined by the MDOC contract year period. Three time periods are summarized in the based period data: Time Period 1 (4/01/05-3/31/06), Time Period 2 (4/01/06-3/31/07), and Time Period 3 (4/01/07-9/30/07). All data has been summarized based on the incurred date of the claim or service. Claims that are incurred during the experience periods and paid through March 31, 2008 are included in the summaries. The Incurred date is defined as the date of service for most care, including the date of admission for inpatient stays.

#### *On-site Primary Care*

On-site primary care is care provided by Medical Practitioners or MPs (physicians, nurse practitioners or physicians assistants) while the inmate is at the camp, correctional facility, or Duane Waters Health Center. The data available to value these services is not based on an incurred claim inventory, but rather is based on the MDOC listing of FTEs at each facility in the state.

The allocation of FTEs for Time Period 3 includes 47.2 physicians, and 37.5 mid-levels (note this is the current allocation of FTEs in Time Period 3 – the winning bidder may choose to have a different allocation of FTEs). These FTEs are assumed to work 1,840 hours per year and are paid according the contracted hourly rate. For Time Period 3, these rates were \$107.05 and \$49.69 for physicians and mid-levels respectively. Because these costs are not assignable to specific inmates, a fixed PPPM value is added to all acuity levels. The total value of these services is shown on the cost model, and is split by physician and mid-level.

#### *Specialty Care*

Specialty care is provided at non-MDOC facilities, with the exception of some specialty services that are provided on site at Duane Waters Health Center, and generates a medical claim record similar to health records of other programs including those of Medicaid, Medicare or Commercial insurance claims. Each claim contains ICD-9 diagnosis codes as well as UB 92 revenue codes for inpatient and outpatient services, or CPT-4 and HCPC procedure codes for professional or miscellaneous services. These codes allow identification of the precise nature of the service for each claim.

The following adjustments were made to the base period data:

- Remove all psychiatric and substance abuse claims (these services are not part of this RFP)
- Remove all Prescription drug claims (Rx is excluded from this RFP, however, drugs billed on an inpatient claim are included)
- Completion Factors – completion factors to be applied to Time Period 2 and 3 were developed for broad categories. Completion factors are necessary to reflect that some claims that are yet to be paid for the incurral period (commonly referred to as Incurred but Not Reported or IBNR). By using the six months of incurral data in Time Period 3 along with six months of claims run-out, the adjustments are minimal. The table below shows the factors applied to the historical data.

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Category of Service	Contract Year 10	Contract Year 11
Inpatient	0.9987	0.9799
Outpatient	0.9992	0.9835
Professional Other	0.9992	0.9875

The base period data is shown on page 4 of this data supplement. The base period data contains annual utilization per 1,000, average cost per unit of service and the PPPM cost. (Note that Annual Utilization per 1,000 x Average Cost per Service/12,000 = Per Prisoner Per Month Cost). The units in the utilization column vary with the type of service. For inpatient claims, the unit is shown both as admits and days in the hospital. For all other types of services it represents a unit of service such as an office visit, exam, or surgery. Note that the split between medical and surgical admissions is dependent on the diagnosis codes available in the data. The CMS DRG grouper v.24 was used to determine the splits.

In addition to the utilization and cost values, the historical trend rates underlying the utilization, cost per service, and PPPM values are displayed. Specific considerations regarding the trend rates are discussed in Section C.

### *Other Categories of Service*

Under each of the four major categories of service (IP, OP, Other and Professional), there is a catch-all bucket called “Other”. The following specifies the types of service in these buckets:

- IP – Maternity related services for the mother only
- OP – Observation room, cardiovascular, Physical/Speech/Occupational therapy, blood, and non-delivery maternity costs
- Other – supplies and hearing aids
- Professional – Therapeutic injections, and miscellaneous medicine (venipuncture, chemotherapy, otorhinolaryngology and others)

### *Appropriation Considerations*

The values shown in the cost model reflect the full cost of medical services with the following exceptions:

- Pharmacy costs
- Mental health and substance abuse services
- Administrative fees

Bidders should note that there are multiple state appropriations that will fund this contract.

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### Section B - Base Period Data

Acuity Level <b>Overall</b>	Time Period 1			Time Period 2			Time Period 3 - (6 Months Only)			Trend 2/1			Trend 3/2		
	Annual Utilization Per 1,000	Average Cost	PPPM	Annual Utilization Per 1,000	Average Cost	PPPM	Annual Utilization Per 1,000	Average Cost	PPPM	Annual Utilization Per 1,000	Average Cost	PPPM	Annual Utilization Per 1,000	Average Cost	PPPM
	<b>Inmate Years</b>			<b>49,526</b>			<b>51,506</b>			<b>50,983</b>					
<b>Off-Site Costs</b>															
<b>Hospital Inpatient - Admit</b>															
Medical	34.9	9,088.31	26.41	39.9	9,786.97	32.58	43.4	9,709.12	35.08	15%	8%	23%	12%	-1%	10%
Surgical	5.1	10,871.50	4.66	4.5	14,982.85	5.63	4.5	16,446.42	6.20	-12%	38%	21%	0%	13%	14%
Other	0.6	6,488.43	0.32	0.7	6,375.37	0.36	0.7	5,097.08	0.31	16%	-2%	14%	8%	-26%	-20%
<b>Total</b>	<b>40.6</b>	<b>\$9,276.93</b>	<b>\$31.39</b>	<b>45.1</b>	<b>\$10,254.69</b>	<b>\$38.57</b>	<b>48.6</b>	<b>\$10,267.85</b>	<b>\$41.58</b>	<b>11%</b>	<b>11%</b>	<b>23%</b>	<b>10%</b>	<b>0%</b>	<b>11%</b>
<b>Hospital Inpatient - Days</b>															
Medical	182.4	1,737.19	26.41	220.1	1,776.23	32.58	218.1	1,929.71	35.08	21%	2%	23%	-1%	12%	10%
Surgical	37.7	1,483.27	4.66	36.6	1,846.98	5.63	39.0	1,906.10	6.20	-3%	25%	21%	9%	4%	14%
Other	1.6	2,352.06	0.32	1.7	2,564.81	0.36	1.8	2,038.83	0.31	5%	9%	14%	9%	-26%	-20%
<b>Total</b>	<b>221.8</b>	<b>\$1,698.46</b>	<b>\$31.39</b>	<b>258.4</b>	<b>\$1,791.41</b>	<b>\$38.57</b>	<b>259.0</b>	<b>\$1,926.91</b>	<b>\$41.58</b>	<b>17%</b>	<b>5%</b>	<b>23%</b>	<b>0%</b>	<b>10%</b>	<b>11%</b>
<b>Hospital Outpatient</b>															
Emergency Room	150.8	\$1,035.31	\$13.01	168.2	\$1,108.49	\$15.53	190.9	\$1,193.14	\$18.98	12%	7%	19%	18%	10%	31%
Surgery	21.5	3,301.66	5.91	25.5	2,936.13	6.23	27.7	3,077.01	7.10	19%	-11%	6%	12%	6%	19%
Radiology	726.9	94.84	5.75	734.9	117.07	7.17	742.8	125.97	7.80	1%	23%	25%	1%	10%	12%
Lab & Pathology	6,283.1	11.52	6.03	6,254.5	12.42	6.47	5,872.8	13.47	6.59	0%	8%	7%	-8%	11%	2%
Other	1,065.8	50.31	4.47	983.4	52.87	4.33	1,488.9	31.99	3.97	-8%	5%	-3%	74%	-49%	-11%
<b>Total</b>	<b>8,248.1</b>	<b>\$51.15</b>	<b>\$35.16</b>	<b>8,166.4</b>	<b>\$58.40</b>	<b>\$39.74</b>	<b>8,323.1</b>	<b>\$64.07</b>	<b>\$44.44</b>	<b>-1%</b>	<b>14%</b>	<b>13%</b>	<b>3%</b>	<b>13%</b>	<b>16%</b>
<b>Other</b>															
Ambulance	1,058.6	34.89	3.08	1,101.7	36.56	3.36	1,202.8	39.18	3.93	4%	5%	9%	12%	10%	23%
DME & Prosthetics	10.7	253.01	0.23	12.3	220.52	0.23	11.0	185.92	0.17	15%	-13%	0%	-13%	-20%	-31%
Dental	31.9	174.51	0.46	28.3	196.97	0.47	26.2	210.44	0.46	-11%	13%	0%	-10%	9%	-2%
Other	509.5	10.26	0.44	15.5	126.75	0.16	15.8	129.83	0.17	-97%	1136%	-62%	3%	3%	6%
<b>Total</b>	<b>1,610.7</b>	<b>\$31.31</b>	<b>\$4.20</b>	<b>1,157.8</b>	<b>\$43.64</b>	<b>\$4.21</b>	<b>1,255.9</b>	<b>\$45.18</b>	<b>\$4.73</b>	<b>-28%</b>	<b>39%</b>	<b>0%</b>	<b>11%</b>	<b>5%</b>	<b>17%</b>
<b>Professional</b>															
Surgery	156.9	423.96	5.54	184.3	416.01	6.39	180.8	400.10	6.03	17%	-2%	15%	-3%	-5%	-7%
Inpatient Visit	215.0	88.42	1.58	274.6	88.19	2.02	288.7	92.64	2.23	28%	0%	27%	7%	7%	14%
Office / Home Visits	121.9	91.15	0.93	109.9	92.69	0.85	114.3	91.24	0.87	-10%	2%	-8%	5%	-2%	3%
Emergency Room Visits	159.8	111.53	1.48	182.5	120.00	1.82	210.1	127.35	2.23	14%	8%	23%	21%	8%	31%
Other Visits	116.1	132.54	1.28	128.2	131.84	1.41	121.4	133.16	1.35	10%	-1%	10%	-7%	1%	-6%
Radiology	440.2	47.45	1.74	502.6	48.87	2.05	536.2	48.63	2.17	14%	3%	18%	9%	-1%	8%
Lab & Pathology	90.6	42.52	0.32	98.7	47.52	0.39	96.9	47.91	0.39	9%	12%	22%	-2%	1%	-1%
Dialysis	222.8	240.93	4.47	202.5	243.06	4.10	176.9	260.32	3.84	-9%	1%	-8%	-16%	10%	-8%
Other	746.7	30.89	1.92	1,116.3	25.23	2.35	1,181.1	28.86	2.84	50%	-18%	22%	8%	20%	29%
<b>Total</b>	<b>2,269.9</b>	<b>\$101.91</b>	<b>\$19.28</b>	<b>2,799.5</b>	<b>\$91.62</b>	<b>\$21.37</b>	<b>2,906.3</b>	<b>\$90.59</b>	<b>\$21.94</b>	<b>23%</b>	<b>-10%</b>	<b>11%</b>	<b>5%</b>	<b>-1%</b>	<b>4%</b>
<b>On-Site Unit Cost</b>	FTEs	Fee	PPPM	FTEs	Fee	PPPM	FTEs	Fee	PPPM						
Physician	42.7	\$104.95	\$13.87	44.8	\$107.04	\$14.50	46.6	\$107.04	\$15.00						
Mid-Level	36.5	\$48.72	\$5.51	37.1	\$49.69	\$5.49	32.3	\$49.69	\$4.83						
<b>Total</b>	<b>79.2</b>		<b>\$19.38</b>	<b>81.9</b>		<b>\$19.98</b>	<b>78.9</b>		<b>\$19.83</b>			<b>3%</b>			<b>-1%</b>
<b>GRAND TOTAL</b>			<b>\$109.41</b>			<b>\$123.88</b>			<b>\$132.52</b>			<b>13%</b>			<b>9%</b>

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### SECTION C – Trend Considerations

One of MDOC's goals is to control inmate healthcare cost trends. MDOC believes the historical trend rates shown in Section B should be considered an upper bound on future PPPM trend rates.

In reviewing the historical trend information, the bidder should keep in mind that there can be systematic changes from year to year in how claims are submitted and in how utilization and average cost per service are calculated. Total dollars spent, however, are generally not subject to these types of fluctuations, and therefore, the PPPM trends should be considered more robust than utilization or cost per service trends.

#### *Utilization*

MDOC believes that bidders should assume savings are possible through utilization management. MDOC and the winning bidder will work together to identify systemic areas of efficiency that can be optimized resulting in savings to the state and the bidder. Examples of these kinds of savings include:

- Improvement of the on-site process of determining when medical care is necessary at an off-site facility
- Effectiveness and productivity monitoring of on-site Medical Practitioners
- Improvement in determining the most cost effective off-site setting to perform the service
- Increase in preventive care services before a health issue is required to be addressed off-site
- Improved concurrent review of inpatient admissions and timing of relocation of an inmate to most cost effective setting

#### *Cost per Unit of Service*

Another source of potential cost savings is the provider reimbursement level. The data book includes the historical reimbursement rates. Through this process it is possible for the prime contractor to realize savings for a different reimbursement structure.

#### Other Considerations

In addition to the above macro forces, there are issues in the underlying data that can explain some of the individual trend results. The following commentary is provided to prospective bidders to help explain some of the utilization and cost trend outliers.

- The current contract is a cost plus contract. Since the RFP price model is based on a PPPM basis, there is a natural financial incentive to maximize healthcare management.

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- Dialysis – The dialysis unit moved from a Jackson facility to Ryan Correctional Facility in Detroit where there is no secure unit available. The historical costs do not reflect this change.
- Opportunity days – An “opportunity day” occurs when a prisoner is in the Foote Hospital Secure Unit and is approved for discharge but a bed at an MDOC facility is not available. In the 6 months beginning 5/1/2007, MDOC experienced on average 252 days per month at Foote hospital while the inmate was waiting for a bed. The lack of available beds has been addressed and resolved and as a result opportunity days have decreased. In the next five months, from November 2007 to March 2008, opportunity days were reduced to an average of 19 days per month and in the most recent two months, it has been reduced to 0 days per month. These opportunity days have not been removed from the data, so a reduction in total inpatient utilization should be realized.
- In April of 2008, on-call doctors were added to the current contract. This has led to a reduction of ER runs by about 200 per month (which equates to about 47 runs per 1,000 inmates per year). The start of this program is new and it is unclear if this trend will continue.
- In December of 2006, a memo on chest pain protocol was issued and resulted in an increase in the number of ER runs due to chest pain. Training and a revised protocol are being developed to address this and ensure only medically necessary ER runs are utilized.
- In January 2008, testing at intake began for Hepatitis C. Neither the cost of testing nor the increased cost of care for positive results is reflected in the historical data.

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### SECTION D – Acuity Level Cost Model

The acuity level definitions are provided in the RFP in Appendix H. MDOC has tracked the acuity level of its inmates since September 2007. Because of the high level of turnover in this population, and the fact that an inmate’s acuity level can change, the current acuity assignments cannot be used to quantify acuity level claim costs for Time Periods 1 and 2.

Claim data from Time Period 3 was assigned to an acuity level based on the inmate acuity assignments maintained by MDOC. Approximately 15% of the total dollars in Time Period 3 are not mapped to an acuity level. Rather than attempting to re-create an acuity designation for these inmates, we have instead allocated a fixed dollar PPPM amount to each acuity level to account for the unmapped costs.

The acuity level cost models are provided on page 8 of this data supplement.

#### *Unmapped Acuity Inmate Cost*

There are two main causes for a claim not being mapped to an acuity level. The first is that the prisoner may not have been in the MDOC system at the time the original acuity assignments were made. The second (and more predominant) reason is that the inmate IDs on some of the claim files are not structured the same way MDOC inmate IDs are structured. Instead, they were a provider defined value and not mappable to the MDOC IDs. **The following is a complete list of the percentage of claims by service category that are not able to be mapped to an acuity level and are instead added as a fixed dollar amount to all acuity levels.**

Service Category	% Not Mapped to Acuity Level	Service Category	% Not Mapped to Acuity Level
Hospital IP		Other	
Medical	11%	Ambulance	9%
Surgical	13%	DME & Prosthetics	5%
Other	39%	Dental	6%
Hospital OP		Other	8%
Emergency Room	15%	Professional	
Surgery	4%	Surgery	8%
Radiology	14%	Inpatient Visits	15%
Lab/Pathology	35%	Office/Home Visits	24%
Other	71%	Emergency Room Visits	7%
		Other Visits	21%
		Radiology	9%
		Lab & Pathology	16%
		Dialysis	5%
		Other	9%

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**Section D - Acuity Level Cost Model**  
**Time Period 3 - (6 Months Only)**

	<b>Acuity Level A - Non Medical Camp</b>			<b>Acuity Level B - Medical Camp or Facility (low level medical)</b>			<b>Acuity Level C - Low Level Medical Facility Only</b>			<b>Acuity Level D - High Level Medical Facility Only</b>			<b>Acuity Level E - Inpatient (Special Needs) Medical Setting</b>		
	Utilization	Average	PPPM	Utilization	Average	PPPM	Utilization	Average	PPPM	Utilization	Average	PPPM	Utilization	Average	PPPM
	Per 1,000	Cost		Per 1,000	Cost		Per 1,000	Cost		Per 1,000	Cost		Per 1,000	Cost	
<b>Inmate Years</b>			<b>25,477</b>			<b>14,861</b>			<b>8,506</b>			<b>1,973</b>			<b>165</b>
<b>Off-Site Costs</b>															
<b>Hospital Inpatient - Admit</b>															
Medical	5.0	6,465.99	2.68	22.0	9,095.91	16.66	75.8	9,186.84	58.05	370.3	9,923.13	306.24	1,001.9	12,684.28	1,059.07
Surgical	0.3	14,693.45	0.39	1.4	11,483.01	1.31	9.1	11,938.35	9.07	38.3	19,399.52	61.88	148.4	22,092.93	273.28
Other	0.3	4,777.16	0.13	0.5	4,674.48	0.21	0.5	5,204.19	0.21	2.1	3,951.40	0.68	0.0	0.00	0.00
<b>Total</b>	<b>5.6</b>	<b>\$6,839.63</b>	<b>\$3.20</b>	<b>23.9</b>	<b>\$9,131.46</b>	<b>\$18.18</b>	<b>85.4</b>	<b>\$9,458.17</b>	<b>\$67.33</b>	<b>410.7</b>	<b>\$10,776.23</b>	<b>\$368.80</b>	<b>1,150.4</b>	<b>\$13,898.30</b>	<b>\$1,332.34</b>
<b>Hospital Inpatient - Days</b>															
Medical	17.4	1,847.43	2.68	109.3	1,828.32	16.66	341.9	2,037.22	58.05	1,794.8	2,047.54	306.24	7,087.7	1,793.07	1,059.07
Surgical	2.4	1,959.13	0.39	10.6	1,491.30	1.31	66.0	1,649.66	9.07	375.5	1,977.36	61.88	1,533.8	2,138.03	273.28
Other	0.6	2,388.58	0.13	1.2	2,077.55	0.21	1.4	1,734.73	0.21	6.2	1,317.14	0.68	0.0	0.00	0.00
<b>Total</b>	<b>20.4</b>	<b>\$1,877.54</b>	<b>\$3.20</b>	<b>121.1</b>	<b>\$1,801.44</b>	<b>\$18.18</b>	<b>409.3</b>	<b>\$1,973.69</b>	<b>\$67.33</b>	<b>2,176.5</b>	<b>\$2,033.35</b>	<b>\$368.80</b>	<b>8,621.6</b>	<b>\$1,854.44</b>	<b>\$1,332.34</b>
<b>Hospital Outpatient</b>															
Emergency Room	79.7	\$656.00	\$4.36	168.2	\$1,034.17	\$14.49	319.4	\$1,119.40	\$29.79	846.2	\$1,543.27	\$108.82	912.0	\$1,902.52	\$144.59
Surgery	4.9	2,953.87	1.20	23.7	2,531.07	4.99	45.2	2,909.39	10.95	215.4	3,554.33	63.80	308.1	5,444.60	139.79
Radiology	34.2	269.75	0.77	89.9	508.22	3.81	137.2	702.52	8.03	1,658.3	546.82	75.57	5,089.8	694.79	294.70
Lab & Pathology	1,216.5	10.69	1.08	4,197.3	14.19	4.96	6,288.5	14.44	7.57	12,785.1	21.76	23.18	29,404.9	13.02	31.90
Other	40.5	21.77	0.07	467.8	22.16	0.86	961.7	21.79	1.75	7,723.6	19.01	12.24	21,234.2	17.49	30.94
<b>Total</b>	<b>1,375.9</b>	<b>\$65.27</b>	<b>\$7.48</b>	<b>4,946.9</b>	<b>\$70.64</b>	<b>\$29.12</b>	<b>7,752.0</b>	<b>\$89.93</b>	<b>\$58.09</b>	<b>23,228.6</b>	<b>\$146.51</b>	<b>\$283.61</b>	<b>56,949.0</b>	<b>\$135.26</b>	<b>\$641.91</b>
<b>Other</b>															
Ambulance	145.6	52.95	0.64	1,020.8	39.16	3.33	2,385.2	39.70	7.89	7,580.0	34.31	21.67	14,877.3	27.59	34.21
DME & Prosthetics	3.6	48.67	0.01	12.7	183.56	0.19	17.4	266.97	0.39	45.2	233.07	0.88	0.0	0.00	0.00
Dental	22.5	209.69	0.39	21.7	240.85	0.43	30.7	192.90	0.49	32.8	238.89	0.65	24.6	106.50	0.22
Other	11.9	75.17	0.07	12.1	127.46	0.13	23.3	180.18	0.35	39.0	187.34	0.61	0.0	0.00	0.00
<b>Total</b>	<b>183.6</b>	<b>\$73.52</b>	<b>\$1.12</b>	<b>1,067.3</b>	<b>\$45.98</b>	<b>\$4.09</b>	<b>2,456.6</b>	<b>\$44.56</b>	<b>\$9.12</b>	<b>7,697.1</b>	<b>\$37.12</b>	<b>\$23.81</b>	<b>14,901.9</b>	<b>\$27.72</b>	<b>\$34.43</b>
<b>Professional</b>															
Surgery	50.2	274.02	1.15	131.1	376.89	4.12	296.2	479.43	11.83	1,149.7	419.75	40.22	2,332.3	400.50	77.84
Inpatient Visit	17.3	110.23	0.16	113.7	97.22	0.92	451.2	93.89	3.53	2,371.3	91.63	18.11	11,293.0	86.05	80.98
Office / Home Visits	36.4	92.02	0.28	94.7	98.06	0.77	99.1	84.02	0.69	531.8	83.09	3.68	1,497.6	92.33	11.52
Emergency Room Visits	78.3	109.38	0.71	173.1	128.08	1.85	354.3	133.67	3.95	1,043.0	136.73	11.88	1,571.2	138.09	18.08
Other Visits	13.1	134.59	0.15	73.9	135.83	0.84	181.9	142.84	2.17	615.9	154.78	7.94	1,632.6	169.39	23.05
Radiology	145.8	36.16	0.44	384.9	48.12	1.54	790.8	49.40	3.26	3,625.8	52.83	15.96	9,488.6	60.67	47.97
Lab & Pathology	10.3	68.32	0.06	50.7	65.48	0.28	105.5	56.42	0.50	731.9	46.05	2.81	1,816.7	49.15	7.44
Dialysis	0.0	0.00	0.00	25.3	258.29	0.55	27.6	242.38	0.56	3,973.8	261.66	86.65	834.7	256.71	17.86
Other	42.5	26.08	0.09	298.5	30.95	0.77	1,326.8	21.24	2.35	14,222.8	30.72	36.41	54,844.8	34.19	156.24
<b>Total</b>	<b>393.9</b>	<b>\$92.46</b>	<b>\$3.04</b>	<b>1,345.8</b>	<b>\$103.71</b>	<b>\$11.63</b>	<b>3,633.3</b>	<b>\$95.21</b>	<b>\$28.83</b>	<b>28,266.0</b>	<b>\$94.95</b>	<b>\$223.66</b>	<b>85,311.4</b>	<b>\$62.03</b>	<b>\$440.98</b>
<b>Unmapped Acuity Inmates Cost</b>			<b>\$16.89</b>			<b>\$16.89</b>			<b>\$16.89</b>			<b>\$16.89</b>			<b>\$16.89</b>
<b>Total Off-Site Costs</b>			<b>\$31.73</b>			<b>\$79.92</b>			<b>\$180.27</b>			<b>\$916.77</b>			<b>\$2,466.56</b>
<b>On-Site Unit Cost</b>															
Physician			\$15.00			\$15.00			\$15.00			\$15.00			\$15.00
Mid-Level			\$4.83			\$4.83			\$4.83			\$4.83			\$4.83
<b>Total</b>			<b>\$19.83</b>			<b>\$19.83</b>			<b>\$19.83</b>			<b>\$19.83</b>			<b>\$19.83</b>
<b>GRAND TOTAL</b>			<b>\$51.56</b>			<b>\$99.75</b>			<b>\$200.10</b>			<b>\$936.60</b>			<b>\$2,486.38</b>

## Appendix Q – Data Book

### SECTION E – Miscellaneous Summaries

In addition to the cost models provided in Sections B and D, two miscellaneous summaries are provided on pages 10 and 11. Note these summaries are provided only for Time Period 3.

#### *ICD-9 Diagnosis Code – Top 10 Summary*

The first summary shows the top 10 diagnosis codes for the statewide population as well as for the individual acuity levels. There are different ways to determine the top 10. The left side of the summary displays the top 10 most frequent diagnosis codes while the right side displays the top 10 highest total paid amount.

There can be more than one diagnosis on a claim. For this analysis, however, we only include the first diagnosis code on a claim in calculating the values. The inmate column represents the unique number of inmates that incurred the specific diagnosis, while the frequency represents the count of the total number of claims with the diagnosis.

#### *ICD-9 Diagnosis Code – Condition Groupings*

The second summary combines the diagnosis codes into condition groupings. Many of these groupings are specific disease categories (asthma, diabetes, certain types of cancer, etc) while others are not necessarily diseases but common symptoms (chest pain, fractures, abdominal pain, etc).

The same metrics are provided in this summary as the diagnosis code summary. It should be noted that the total dollars paid is calculated based only on those claims that fell within the diagnosis code grouping. Therefore, the average paid amount in this summary should not be interpreted as the average paid amount for an inmate with this condition. Rather, it is the average paid amount for a claim where the first diagnosis code falls within the condition grouping.

## Appendix Q - Data Book

### Section E - Summary of ICD9 Diagnosis Codes

#### All Acuties

Frequency Rank					Paid Amount Rank						
Diagnosis	Description	Time Period 3			Diagnosis	Description	Time Period 3				
		Inmates	Frequency	Paid			Avg Pd	Inmates	Frequency	Paid	Avg Pd
78650	CHEST PAIN NOS	2,036	13,015	2,832,234	217.61	78650	CHEST PAIN NOS	2,036	13,015	2,832,234	217.61
78659	CHEST PAIN NEC	821	4,329	2,281,027	526.92	78659	CHEST PAIN NEC	821	4,329	2,281,027	526.92
78900	ABDOMINAL PAIN UNSPECIFIED SITE	747	2,595	654,525	252.23	585	CHRONIC RENAL FAILURE	136	1,446	2,141,097	1,480.70
585	CHRONIC RENAL FAILURE	136	1,446	2,141,097	1,480.70	41401	CORONARY ATHEROSCLEROSIS OF NATIVE CC	205	1,019	1,573,405	1,544.07
78039	OTHER CONVULSIONS	262	1,257	393,979	313.43	185	MALIGNANT NEOPLASM, PROSTATE	95	1,163	782,764	673.06
78609	RESPIRATORY ABNORMALITY NEC	384	1,245	188,797	151.64	V5811	CHEMOTHERAPY	29	324	755,907	2,333.05
7802	SYNCOPE AND COLLAPSE	292	1,240	485,138	391.24	78900	ABDOMINAL PAIN UNSPECIFIED SITE	747	2,595	654,525	252.23
V707	EXAMINATION, CLINICAL RESEARCH	1,097	1,213	13,450	11.09	41071	SUBENDOCARDIAL INFARCTION, INITIAL	44	173	581,270	3,359.94
1629	M-NEOPLASM, BRONCHUS/LUNG NOS	61	1,169	535,835	458.37	1629	M-NEOPLASM, BRONCHUS/LUNG NOS	61	1,169	535,835	458.37
185	MALIGNANT NEOPLASM, PROSTATE	95	1,163	782,764	673.06	99673	COMPLICATION, RENAL DIALYS DEV/GRFT	36	231	525,316	2,274.10

#### Acuity Level A - Non Medical Camp

Frequency Rank					Paid Amount Rank						
Diagnosis	Description	Time Period 3			Diagnosis	Description	Time Period 3				
		Inmates	Frequency	Paid			Avg Pd	Inmates	Frequency	Paid	Avg Pd
78650	CHEST PAIN NOS	252	864	184,049	213.02	78650	CHEST PAIN NOS	252	864	184,049	213.02
78900	ABDOMINAL PAIN UNSPECIFIED SITE	125	328	75,244	229.40	72888	RHABDOMYOLYSIS	24	102	114,401	1,121.58
78659	CHEST PAIN NEC	88	304	113,070	371.94	78659	CHEST PAIN NEC	88	304	113,070	371.94
9597	LOWER LEG INJURY NOS	121	209	15,184	72.65	7802	SYNCOPE AND COLLAPSE	48	171	83,857	490.39
7802	SYNCOPE AND COLLAPSE	48	171	83,857	490.39	V5811	CHEMOTHERAPY	4	56	79,781	1,424.66
7295	PAIN IN LIMB	108	162	18,454	113.92	5409	ACUTE APPENDICITIS NOS	16	53	78,296	1,477.29
95901	HEAD INJURY, UNSPECIFIED	87	155	28,477	183.72	78900	ABDOMINAL PAIN UNSPECIFIED SITE	125	328	75,244	229.40
7242	LUMBAGO	62	137	22,912	167.24	486	PNEUMONIA, ORGANISM NOS	22	77	56,873	738.61
V707	EXAMINATION, CLINICAL RESEARCH	126	133	1,463	11.00	78903	ABDOMINAL PAIN RIGHT LOWER QUADRANT	35	81	51,976	641.67
71947	PAIN IN JOINT, ANKLE/FOOT	98	131	5,851	44.67	5920	CALCULUS OF KIDNEY	31	120	51,157	426.31

#### Acuity Level B - Medical Camp or Facility (low level medical)

Frequency Rank					Paid Amount Rank						
Diagnosis	Description	Time Period 3			Diagnosis	Description	Time Period 3				
		Inmates	Frequency	Paid			Avg Pd	Inmates	Frequency	Paid	Avg Pd
78650	CHEST PAIN NOS	583	3,006	678,601	225.75	78650	CHEST PAIN NOS	583	3,006	678,601	225.75
78659	CHEST PAIN NEC	234	855	480,375	561.84	78659	CHEST PAIN NEC	234	855	480,375	561.84
78900	ABDOMINAL PAIN UNSPECIFIED SITE	194	582	173,488	298.09	41401	CORONARY ATHEROSCLEROSIS OF NATIVE CC	28	172	254,862	1,481.75
V707	EXAMINATION, CLINICAL RESEARCH	423	456	5,057	11.09	78900	ABDOMINAL PAIN UNSPECIFIED SITE	194	582	173,488	298.09
7802	SYNCOPE AND COLLAPSE	86	313	119,039	380.32	4275	CARDIAC ARREST	4	35	173,454	4,955.83
78039	OTHER CONVULSIONS	60	282	83,825	297.25	41071	SUBENDOCARDIAL INFARCTION, INITIAL	11	40	125,780	3,144.51
78609	RESPIRATORY ABNORMALITY NEC	96	268	47,886	178.68	7802	SYNCOPE AND COLLAPSE	86	313	119,039	380.32
78605	SHORTNESS OF BREATH	130	256	39,001	152.35	0389	SEPTICEMIA NOS	6	21	105,524	5,024.96
79431	ABNORMAL ELECTROCARDIOGRAM	205	229	6,908	30.17	4111	INTERMEDIATE CORONARY SYNDROME	41	219	101,785	464.77
78651	PRECARDIAL PAIN	86	228	33,711	147.86	5920	CALCULUS OF KIDNEY	45	213	93,219	437.65

#### Acuity Level C - Low Level Medical Facility Only

Frequency Rank					Paid Amount Rank						
Diagnosis	Description	Time Period 3			Diagnosis	Description	Time Period 3				
		Inmates	Frequency	Paid			Avg Pd	Inmates	Frequency	Paid	Avg Pd
78650	CHEST PAIN NOS	676	4,526	1,059,134	234.01	78650	CHEST PAIN NOS	676	4,526	1,059,134	234.01
78659	CHEST PAIN NEC	279	1,409	825,445	585.84	78659	CHEST PAIN NEC	279	1,409	825,445	585.84
78900	ABDOMINAL PAIN UNSPECIFIED SITE	258	815	215,073	263.89	41401	CORONARY ATHEROSCLEROSIS OF NATIVE CC	87	356	543,836	1,527.63
78039	OTHER CONVULSIONS	111	610	184,034	301.70	78900	ABDOMINAL PAIN UNSPECIFIED SITE	258	815	215,073	263.89
78651	PRECARDIAL PAIN	134	379	60,854	160.56	41071	SUBENDOCARDIAL INFARCTION, INITIAL	14	52	203,527	3,913.98
V707	EXAMINATION, CLINICAL RESEARCH	325	366	4,093	11.18	78039	OTHER CONVULSIONS	111	610	184,034	301.70
41401	CORONARY ATHEROSCLEROSIS OF NATIVE CC	87	356	543,836	1,527.63	185	MALIGNANT NEOPLASM, PROSTATE	33	201	161,425	803.11
7802	SYNCOPE AND COLLAPSE	96	343	108,550	316.47	41021	AMI, INFEROLATERAL WALL, INITIAL	4	11	157,734	14,339.41
78609	RESPIRATORY ABNORMALITY NEC	115	339	49,816	146.95	5849	ACUTE RENAL FAILURE NOS	14	82	128,910	1,572.07
4111	INTERMEDIATE CORONARY SYNDROME	58	321	121,844	379.58	41041	AMI, INFERIOR WALL, INITIAL	7	22	124,673	5,666.97

#### Acuity Level D - High Level Medical Facility Only

Frequency Rank					Paid Amount Rank						
Diagnosis	Description	Time Period 3			Diagnosis	Description	Time Period 3				
		Inmates	Frequency	Paid			Avg Pd	Inmates	Frequency	Paid	Avg Pd
78650	CHEST PAIN NOS	353	3,612	734,967	203.48	585	CHRONIC RENAL FAILURE	86	1,226	1,876,819	1,530.85
78659	CHEST PAIN NEC	153	1,326	654,134	493.31	78650	CHEST PAIN NOS	353	3,612	734,967	203.48
585	CHRONIC RENAL FAILURE	86	1,226	1,876,819	1,530.85	78659	CHEST PAIN NEC	153	1,326	654,134	493.31
185	MALIGNANT NEOPLASM, PROSTATE	42	831	509,961	613.67	41401	CORONARY ATHEROSCLEROSIS OF NATIVE CC	68	403	623,676	1,547.58
5856	CHRONIC RENAL FAILURE	58	717	265,517	370.32	185	MALIGNANT NEOPLASM, PROSTATE	42	831	509,961	613.67
78900	ABDOMINAL PAIN UNSPECIFIED SITE	122	606	139,002	229.38	V5811	CHEMOTHERAPY	13	161	468,667	2,910.97
1629	M-NEOPLASM, BRONCHUS/LUNG NOS	27	524	298,220	569.12	99673	COMPLICATION, RENAL DIALYS DEV/GRFT	33	185	452,857	2,447.88
41401	CORONARY ATHEROSCLEROSIS OF NATIVE CC	68	403	623,676	1,547.58	99673	COMPLICATION, RENAL DIALYS DEV/GRFT	33	185	452,857	2,447.88
7802	SYNCOPE AND COLLAPSE	47	367	165,713	451.53	4280	CONGESTIVE HEART FAILURE	39	198	320,079	1,616.56
78609	RESPIRATORY ABNORMALITY NEC	96	356	41,807	117.44	1629	M-NEOPLASM, BRONCHUS/LUNG NOS	27	524	298,220	569.12

#### Acuity Level E - Inpatient (Special Needs) Medical Setting

Frequency Rank					Paid Amount Rank						
Diagnosis	Description	Time Period 3			Diagnosis	Description	Time Period 3				
		Inmates	Frequency	Paid			Avg Pd	Inmates	Frequency	Paid	Avg Pd
78650	CHEST PAIN NOS	47	407	63,782	156.71	1625	M-NEOPLASM, LOWER LOBE, LUNG	4	206	172,083	835.36
1629	M-NEOPLASM, BRONCHUS/LUNG NOS	7	208	50,247	241.57	486	PNEUMONIA, ORGANISM NOS	20	103	128,578	1,248.33
1625	M-NEOPLASM, LOWER LOBE, LUNG	4	206	172,083	835.36	1749	M-NEOPLASM, FEMALE BREAST NOS	2	152	127,772	840.60
78659	CHEST PAIN NEC	21	174	86,961	499.78	V5811	CHEMOTHERAPY	5	19	100,224	5,274.95
78609	RESPIRATORY ABNORMALITY NEC	24	159	30,491	191.77	1619	M-NEOPLASM, LARYNX NOS	2	96	89,796	935.37
1749	M-NEOPLASM, FEMALE BREAST NOS	2	152	127,772	840.60	78659	CHEST PAIN NEC	21	174	86,961	499.78
20300	MULTIPLE MYELOMA W/O REMISSION	1	118	18,957	160.65	431	INTRACEREBRAL HEMORRHAGE	1	3	82,863	27,627.80
486	PNEUMONIA, ORGANISM NOS	20	103	128,578	1,248.33	51881	RESPIRATORY FAILURE	8	87	67,997	781.58
1619	M-NEOPLASM, LARYNX NOS	2	96	89,796	935.37	78650	CHEST PAIN NOS	47	407	63,782	156.71
1991	M-NEOPLASM NOS	1	93	12,385	133.17	4148	CHRONIC ISCHEMIC HEART DISEASE NEC	6	35	60,090	1,716.86

## Appendix Q - Data Book

### Section E - Summary of ICD9 Conditions

All Acuties									
Frequency Rank					Paid Amount Rank				
Condition	Time Period 3				Condition	Time Period 3			
	Inmates	Frequency	Paid	Avg Pd		Inmates	Frequency	Paid	Avg Pd
Chest Pain	2,174	18,862	5,475,245	290.28	Chest Pain	2,174	18,862	5,475,245	290.28
Condition Not Assigned	5,190	13,308	3,854,275	289.62	Coronary Artery Disease	468	3,942	3,952,149	1,002.57
Abdominal Pain	1,197	5,162	1,449,483	280.80	Condition Not Assigned	5,190	13,308	3,854,275	289.62
Coronary Artery Disease	468	3,942	3,952,149	1,002.57	Renal Failure	214	2,873	2,948,859	1,026.40
Renal Failure	214	2,873	2,948,859	1,026.40	Prosthetic Device Complication	114	670	1,562,012	2,331.36
Fractures	591	2,495	1,006,962	403.59	Abdominal Pain	1,197	5,162	1,449,483	280.80
Dyspnea	783	2,403	332,426	138.34	Cancer - Lung, Bronchi, Pleura	65	2,317	1,124,281	485.23
Cancer - Lung, Bronchi, Pleura	65	2,317	1,124,281	485.23	Fractures	591	2,495	1,006,962	403.59
Open Wound	740	2,076	572,054	275.56	Cancer - Prostate Gland	98	1,176	787,830	669.92
Epilepsy (Convulsions and Seizures)	298	1,767	689,460	390.19	Drug Poisoning	231	1,051	727,243	691.95

Acuity Level A - Non Medical Camp									
Frequency Rank					Paid Amount Rank				
Condition	Time Period 3				Condition	Time Period 3			
	Inmates	Frequency	Paid	Avg Pd		Inmates	Frequency	Paid	Avg Pd
Condition Not Assigned	1,227	2,407	492,919	204.79	Condition Not Assigned	1,227	2,407	492,919	204.79
Chest Pain	289	1,297	330,381	254.73	Chest Pain	289	1,297	330,381	254.73
Fractures	237	939	314,236	334.65	Fractures	237	939	314,236	334.65
Open Wound	342	803	181,910	226.54	Abdominal Pain	215	731	236,731	323.84
Abdominal Pain	215	731	236,731	323.84	Open Wound	342	803	181,910	226.54
Arthralgia	301	502	46,674	92.98	Coronary Artery Disease	17	97	130,224	1,342.51
Head Injury	148	285	38,479	135.01	Appendicitis	18	94	120,984	1,287.06
Back Sprain or Strain	100	256	48,921	191.10	Kidney Stones	47	235	117,369	499.44
Cellulitis	82	238	104,269	438.10	Rhabdomyolysis	24	102	114,401	1,121.58
Kidney Stones	47	235	117,369	499.44	Cellulitis	82	238	104,269	438.10

Acuity Level B - Medical Camp or Facility (low level medical)									
Frequency Rank					Paid Amount Rank				
Condition	Time Period 3				Condition	Time Period 3			
	Inmates	Frequency	Paid	Avg Pd		Inmates	Frequency	Paid	Avg Pd
Chest Pain	624	4,257	1,262,848	296.65	Chest Pain	624	4,257	1,262,848	296.65
Condition Not Assigned	1,633	3,086	650,423	210.77	Coronary Artery Disease	114	787	749,905	952.87
Abdominal Pain	345	1,305	403,101	308.89	Condition Not Assigned	1,633	3,086	650,423	210.77
Coronary Artery Disease	114	787	749,905	952.87	Abdominal Pain	345	1,305	403,101	308.89
Fractures	169	712	256,508	360.26	Fractures	169	712	256,508	360.26
Dyspnea	194	582	93,936	161.40	Cardiac Arrhythmia	122	240	200,830	836.79
Hepatitis	113	481	174,448	362.68	Kidney Stones	58	350	186,645	533.27
Open Wound	165	433	120,185	277.56	Drug Poisoning	49	235	179,338	763.14
Hypertension	193	408	93,338	228.77	Hepatitis	113	481	174,448	362.68
Arthralgia	245	407	46,822	115.04	Prosthetic Device Complication	19	100	154,681	1,546.81

Acuity Level C - Low Level Medical Facility Only									
Frequency Rank					Paid Amount Rank				
Condition	Time Period 3				Condition	Time Period 3			
	Inmates	Frequency	Paid	Avg Pd		Inmates	Frequency	Paid	Avg Pd
Chest Pain	714	6,489	2,022,902	311.74	Chest Pain	714	6,489	2,022,902	311.74
Condition Not Assigned	1,358	3,237	864,333	267.02	Coronary Artery Disease	176	1,448	1,541,462	1,064.55
Abdominal Pain	384	1,679	474,584	282.66	Condition Not Assigned	1,358	3,237	864,333	267.02
Coronary Artery Disease	176	1,448	1,541,462	1,064.55	Abdominal Pain	384	1,679	474,584	282.66
Epilepsy (Convulsions and Seizures)	131	910	343,312	377.27	Epilepsy (Convulsions and Seizures)	131	910	343,312	377.27
Dyspnea	241	612	76,973	125.77	Drug Poisoning	101	429	264,769	617.18
Fractures	113	528	235,703	446.41	Peripheral Vascular Disease	49	277	241,111	870.44
Hepatitis	95	475	151,965	319.93	Cellulitis	85	401	235,819	588.08
Drug Poisoning	101	429	264,769	617.18	Fractures	113	528	235,703	446.41
Open Wound	136	405	116,123	286.72	Renal Failure	44	278	228,719	822.73

Acuity Level D - High Level Medical Facility Only									
Frequency Rank					Paid Amount Rank				
Condition	Time Period 3				Condition	Time Period 3			
	Inmates	Frequency	Paid	Avg Pd		Inmates	Frequency	Paid	Avg Pd
Chest Pain	366	5,256	1,456,058	277.03	Renal Failure	110	2,199	2,352,719	1,069.90
Condition Not Assigned	605	3,281	1,288,683	392.77	Chest Pain	366	5,256	1,456,058	277.03
Renal Failure	110	2,199	2,352,719	1,069.90	Condition Not Assigned	605	3,281	1,288,683	392.77
Coronary Artery Disease	123	1,313	1,179,697	898.47	Coronary Artery Disease	123	1,313	1,179,697	898.47
Abdominal Pain	175	1,002	252,681	252.18	Prosthetic Device Complication	54	397	1,093,662	2,754.82
Cancer - Colon/Rectum	11	939	361,270	384.74	Cancer - Prostate Gland	43	839	513,587	612.14
Cancer - Lung, Bronchi, Pleura	28	848	446,562	526.61	Cancer - Lung, Bronchi, Pleura	28	848	446,562	526.61
Cancer - Prostate Gland	43	839	513,587	612.14	Congestive Heart Failure	45	232	368,343	1,587.68
Dyspnea	175	646	78,028	120.79	Cancer - Colon/Rectum	11	939	361,270	384.74
Anemia	51	532	248,605	467.30	Abdominal Pain	175	1,002	252,681	252.18

Acuity Level E - Inpatient (Special Needs) Medical Setting									
Frequency Rank					Paid Amount Rank				
Condition	Time Period 3				Condition	Time Period 3			
	Inmates	Frequency	Paid	Avg Pd		Inmates	Frequency	Paid	Avg Pd
Chest Pain	49	617	154,100	249.76	Condition Not Assigned	80	523	326,983	625.21
Condition Not Assigned	80	523	326,983	625.21	Cancer - Lung, Bronchi, Pleura	8	484	229,533	474.24
Cancer - Lung, Bronchi, Pleura	8	484	229,533	474.24	Pneumonia	21	124	179,109	1,444.43
Dyspnea	44	245	41,675	170.10	Stroke, Cerebral	10	121	165,792	1,370.18
Cancer - Breast	2	177	132,107	746.37	Coronary Artery Disease	12	119	161,410	1,356.39
Cancer - Metastatic	8	177	101,753	574.87	Chest Pain	49	617	154,100	249.76
Cancer - Larynx	2	173	142,645	824.53	Cancer - Larynx	2	173	142,645	824.53
Anemia	15	161	40,477	251.41	Cancer - Breast	2	177	132,107	746.37
Cancer - Non Hodgkin's Lymphoma	3	128	75,839	592.49	Prosthetic Device Complication	8	66	109,315	1,656.29
Pneumonia	21	124	179,109	1,444.43	Cancer - Metastatic	8	177	101,753	574.87