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August 24, 2012

Ms. Patricia Bazin
 Health Care Services Branch Administrator
 Department of Human Services, Med-QUEST Division
 601 Kamokila Blvd., Ste. 518
 Kapolei, HI 96707-2021

Re: Updated CCS Behavioral Health Data Book and CY 2013 Rates

Dear Patti:

Per your request, we have produced an updated data book for behavioral health services included in the Community Care Services Program (CCS) contract. In addition, we have updated calendar year 2013 rates for this program.

The revision is due to the availability of more recent pharmacy claims data for this population. Milliman received calendar year 2011 claim data from QExA plans who have been managing and paying pharmacy claims for CCS members. This calendar year 2011 data replaces the calendar year 2008 data as the base year for the pharmacy component of the CCS rate. Annual trend rates were not changed although these claims were trended for two years rather than five.

A table is shown below including rates for different tax scenarios for potential bidders.

| | Calendar Year 2013 CCO Per Member Monthly Capitation Rates | | | |
|------------------------|--|-------------|-----------------------------|---------------|
| | Base Rate | Premium Tax | General Excise Tax Rate (2) | |
| | | Rate (1) | Oahu | Other Islands |
| Males and Females < 40 | \$934.66 | \$976.30 | \$978.70 | \$1,016.98 |
| Males and Females 40+ | \$828.63 | \$865.55 | \$867.68 | \$901.61 |

- (1) Premium Tax load is 4.265% . Rates are rounded to two decimal places.
- (2) General Excise Tax load is 4.5% for Oahu and 4% for all other islands.

This letter and attachments are intended for the use of the State of Hawaii Department of Human Services (DHS) for use with the Community Care Services Program (CCS) managed care program. It is our understanding that the information contained in this report may be utilized in a public document. To the extent that the information contained in this report is provided to third parties, the document should be distributed in its entirety. Any user of the data must possess a certain level of expertise in actuarial science and health care modeling so as not to misinterpret the data presented.

Milliman makes no representations or warranties regarding the contents of this report to third parties. Similarly, third parties are instructed that they are to place no reliance upon this report prepared for DHS by Milliman that would result in the creation of any duty or liability under any theory of law by Milliman or its employees to third parties. Other parties receiving this report must rely upon their own experts in drawing conclusions about the DHS capitation rates, assumptions and trends. It is the responsibility of each BHO to determine the adequacy of the rates for their risk, management, and contractual obligations.

Rate Development

We have developed rates for a Behavioral Health Organization (BHO) to case manage, authorize, and facilitate the delivery of behavioral health services to Medicaid eligible adults who have serious mental illness (SMI) or serious and persistent mental illness (SPMI) who are in the QUEST Expanded Access (QExA) health plans.

We have developed rates based on CCS claims data from calendar year 2008 data for members to be included in this program except for pharmacy which is based on calendar year 2011 data for CCS members. Claims are not necessarily from specific members currently in the program, but rather the subset of CCS members from that period who have now been allocated to the QExA program rather than QUEST members who used to be served by the CCS program.

We have chosen to use the calendar year 2008 data as a base year for medical costs since the state has serious concerns with the quality of current medical data available for these members. As stated above the pharmacy is based on calendar year 2011 data provided by QExA plans.

Membership was determined on a monthly basis as those who had CCS claims and were Medicaid eligible in that month with a rate code that would subsequently be transitioned into the QExA program. An April 2012 snapshot of membership is as follows:

| <u>Population</u> | <u>Members</u> |
|-------------------|----------------|
| Less than 40 | 195 |
| 40 and over | 619 |

Completion factors were not applied to medical claims because claims data included 12 months of claims run-out and proved to be complete. A completion factor of 1.002 was applied to pharmacy claims to account for additional run-out.

We have assumed that rebates have not been removed from pharmacy costs and that in the future the state will collect rebates directly. Therefore we have not made a rebate adjustment.

Unlike the 2008 data, which included only CCS paid drugs, the 2011 data includes all drug expenditures for these clients. Using the 2008 data we eliminated 0.1% of the drug expenditures by drug class because they were deemed primarily non mental health related. The remaining drug classes which represented 99.9% of the drug spend are listed below. When using the 2011 data we assumed all drugs in the drug classes listed below remained with the CCS population. The same costs will be removed from the QExA rates prospectively. All other pharmacy costs for these members remain with QExA.

Behavioral Health Pharmacy Classes Included

| Drug Class |
|---|
| Dibenzapines / Quinolinone Derivatives / Benzisoxazoles |
| Antipsychotics - Misc. |
| Anticonvulsants - Misc. |
| Selective Serotonin Reuptake Inhibitors (SSRIs) |
| Valproic Acid |
| Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) |
| Antidepressants - Misc. |
| Anticonvulsants - Benzodiazepines |
| Benzodiazepines |
| Opioid Antagonists |
| Attention-Deficit/Hyperactivity Disorder (ADHD) Agents |
| Butyrophenones |
| Modified Cyclics |
| Alpha-2 Receptor Antagonists (Tetracyclics) |
| Amphetamines |
| Monoamine Oxidase Inhibitors (MAOIs) |
| Antianxiety Agents - Misc. |
| Antiparkinson Anticholinergics |
| Antimanic Agents |
| Combination Psychotherapeutics |
| Phenothiazines |
| Stimulants - Misc. |
| Antihistamines - Phenothiazines |
| Opioid Agonists - Non-Patch |
| Antihistamines - Ethanolamines |
| Tricyclic Agents |
| Agents for Chemical Dependency |

Although we have not applied any management discount factors to the base year data, we have reviewed the annual trend rates used in the development of managed care rates for the Medicaid managed care programs by service line. These were the basis for applied trends shown below.

| <u>Service Type</u> | <u>Utilization</u> | <u>Cost</u> |
|---------------------|--------------------|-------------|
| Inpatient Hospital | 1.000 | 1.020 |
| Outpatient Hospital | 1.020 | 1.015 |
| Professional | 1.020 | 1.010 |
| Pharmacy | 1.025 | 1.030 |

Because of the unusually long trend period (5 years) from the base data year (for medical services) of 2008 to the contract period of 2013, the DHS has implemented a risk corridor to protect both themselves and the BHO. Note that these updated rates are based on a more recent pharmacy base year and require a shorter trend period, the pharmacy costs will remain part of the risk corridor calculation.

We have assumed a case management and administration component of \$382.50 PMPM. This is based on the amount currently paid to the CCS organization for this purpose.

After a review of the claim data by island and age/gender bands, we found that the only credible cost differences for this population was for members under 40 years old and those 40 years old and older.

The cost models provided are intended to provide as much detail as possible for a BHO to review the historical costs of this program. We have therefore provided HCPCS level detail for most of the professional costs and pharmacy models by drug class split by single-source brand, multi-source brand and generic.

The attached data book includes the following exhibits:

| <u>Exhibit</u> | <u>Description</u> |
|----------------|--|
| 1a | CCS Cost Model - Males and Females < 40 |
| 1b | Pharmacy Detail - Males and Females < 40 |
| 2a | CCS Cost Model - Males and Females 40+ |
| 2b | Pharmacy Detail - Males and Females 40+ |

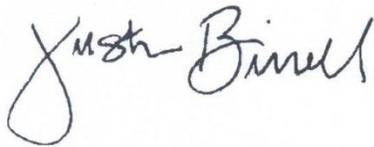
Additional Notes

This analysis has relied extensively on data provided by the state. While we have performed numerous checks of reasonableness and have made adjustments where necessary, we have not performed an independent audit of the data. Errors in data reporting may flow through the analysis, and as such would impact the results.

The above analysis is based on Milliman's experience in working with the projections of health care claim costs for the Medicaid population. Actual experience will vary from our estimated rates for many reasons, including trends in health status, changes in provider contracting, and other non-random and random factors. It is important that actual experience be monitored and that adjustments are made, as appropriate.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. I am a member of the American Academy of Actuaries, and I meet the qualification standards for performing the analyses in this report.

Sincerely,

A handwritten signature in black ink that reads "Justin C. Birrell". The signature is written in a cursive style with a large initial "J" and "B".

Justin C. Birrell, FSA, MAAA
Consulting Actuary

Exhibit 1a
Hawaii Medicaid CCS Behavioral Health Cost Model Summary
Non-Pharmacy Data Incurred 1/2008 - 12/2008, Paid Thru 12/2009
Pharmacy Data Incurred 1/2011 - 12/2011, Paid Thru 3/2012
Rates Effective Calendar Year 2013
All Islands
Males and Females < 40

| Cost Model Line | Benefit | Total Admits | Total Days/Services | Total Paid | Annual Admits Per 1,000 | Average Length of Stay | Medical Member Months (CY2008) | Rx Member Months (CY2011) | Paid PMPM |
|-----------------|--|--------------|---------------------|--------------|-------------------------|------------------------|--------------------------------|---------------------------|-----------|
| | | | | | | | 2,937 | 2,368 | |
| | CCS Claims Data | | | | | | | | |
| | Case Management / Administration Capitation | | 2,937 | \$1,123,313 | | | 12,000.0 | \$382.50 | \$382.50 |
| I99 | Inpatient Hospital Total | 10 | 128 | \$81,142 | 40.9 | 12.79 | 523.0 | \$699.90 | \$30.51 |
| O99 | Outpatient Hospital Total | | 248 | \$31,006 | | | 1,118.8 | \$134.69 | \$12.56 |
| | Professional | | | | | | | | |
| 80101 | Drug screen single | | 8 | \$43 | | | 36.1 | \$5.70 | \$0.02 |
| 85025 | Complete cbc w/auto diff wbc | | 51 | \$548 | | | 230.1 | \$11.29 | \$0.22 |
| 90772 | Ther/proph/diag inj, sc/im | | 156 | \$1,986 | | | 703.8 | \$13.38 | \$0.78 |
| 90801 | Psy dx interview | | 108 | \$11,677 | | | 487.2 | \$113.64 | \$4.61 |
| 90804 | Psytch office 20-30 min | | 95 | \$4,562 | | | 428.6 | \$50.47 | \$1.80 |
| 90805 | Psytch off 20-30 min w/e&m | | 189 | \$10,086 | | | 852.7 | \$56.08 | \$3.99 |
| 90806 | Psytch off 45-50 min | | 660 | \$46,794 | | | 2,977.5 | \$74.52 | \$18.49 |
| 90807 | Psytch off 45-50 min w/e&m | | 214 | \$17,075 | | | 965.4 | \$83.86 | \$6.75 |
| 90808 | Psytch office 75-80 min | | 69 | \$7,776 | | | 311.3 | \$118.44 | \$3.07 |
| 90809 | Psytch off 75-80 w/e&m | | 10 | \$1,165 | | | 45.1 | \$122.45 | \$0.46 |
| 90817 | Psytch hosp 20-30 min w/e&m | | 43 | \$2,409 | | | 194.0 | \$58.89 | \$0.95 |
| 90819 | Psytch hosp 45-50 min w/e&m | | 90 | \$7,308 | | | 406.0 | \$85.34 | \$2.89 |
| 90847 | Family psytch w/patient | | 40 | \$3,260 | | | 180.5 | \$85.66 | \$1.29 |
| 90853 | Group psychotherapy | | 27 | \$564 | | | 121.8 | \$21.97 | \$0.22 |
| 90862 | Medication management | | 874 | \$34,202 | | | 3,943.0 | \$41.13 | \$13.51 |
| 90870 | Electroconvulsive therapy | | - | \$0 | | | - | \$0.00 | \$0.00 |
| 99283 | Emergency dept visit | | 14 | \$442 | | | 63.2 | \$33.22 | \$0.17 |
| 99284 | Emergency dept visit | | 14 | \$985 | | | 63.2 | \$73.92 | \$0.39 |
| 99285 | Emergency dept visit | | 22 | \$2,592 | | | 99.3 | \$123.80 | \$1.02 |
| A0180 | Noner transport lodgng recip | | 72 | \$1,104 | | | 324.8 | \$16.12 | \$0.44 |
| A0427 | ALS1-emergency | | 1 | \$300 | | | 4.5 | \$315.30 | \$0.12 |
| A0428 | BLS | | - | \$0 | | | - | \$0.00 | \$0.00 |
| A0429 | BLS-emergency | | 12 | \$3,145 | | | 54.1 | \$275.48 | \$1.24 |
| H0004 | Alcohol and/or drug services | | - | \$0 | | | - | \$0.00 | \$0.00 |
| H0007 | Alcohol and/or drug services | | 426 | \$1,654 | | | 1,921.9 | \$4.08 | \$0.65 |
| H0020 | Alcohol and/or drug services | | - | \$0 | | | - | \$0.00 | \$0.00 |
| H0036 | Comm psy face-face per 15min | | 10,941 | \$23,415 | | | 49,359.4 | \$2.25 | \$9.25 |
| Z9002 | Alcohol and/or drug services | | 53 | \$1,437 | | | 239.1 | \$28.50 | \$0.57 |
| Z9004 | Comm psy face-face per 15min | | 71 | \$42,376 | | | 320.3 | \$627.28 | \$16.74 |
| Z9008 | Psytch off 75-80 w/e&m | | 17 | \$4,695 | | | 76.7 | \$290.27 | \$1.86 |
| All Other | All Other HCPCS | | 161 | \$1,683 | | | 726.3 | \$10.98 | \$0.66 |
| | Professional Total | | 14,438 | \$233,284 | | | 65,135.8 | \$16.98 | \$92.18 |
| Rx | Prescription Drug Total | | 3,794 | \$885,598.09 | | | 20,201.0 | \$247.66 | \$416.92 |
| | Total Medical | | 18,608 | \$1,231,030 | | | 86,978.6 | \$66.16 | \$552.16 |
| | CCS Total Capitation (Including Case Management and Admin) | | | \$2,354,343 | | | | | \$934.66 |

Exhibit 1b
Hawaii Medicaid QUEST Behavioral Health Pharmacy Summary by Drug Class
Pharmacy Data Incurred 1/2011 - 12/2011, Paid Thru 3/2012
Rates Effective Calendar Year 2013
All Islands
Males and Females < 40

Member Months 2,368

| Drug Class | Total Scripts | Total Paid | Annual Utilization Per 1,000 | Average Cost Service | Paid PMPM | Total Generic Scripts | Total Generic Paid | Annual Utilization Per 1,000 | Average Cost Service | Generic Paid PMPM |
|---|---------------|------------------|------------------------------|----------------------|-----------------|-----------------------|--------------------|------------------------------|----------------------|-------------------|
| Dibenzapines / Quinolinone Derivatives / Benzisoxazoles | 1,298 | \$730,169 | 6,909.7 | \$596.98 | \$343.75 | 304 | \$51,562 | 1,616.7 | \$180.17 | \$24.27 |
| Antipsychotics - Misc. | 83 | \$42,897 | 442.9 | \$547.21 | \$20.20 | - | \$0 | - | \$0.00 | \$0.00 |
| Anticonvulsants - Misc. | 272 | \$21,514 | 1,446.0 | \$84.05 | \$10.13 | 212 | \$5,533 | 1,131.2 | \$27.63 | \$2.60 |
| Selective Serotonin Reuptake Inhibitors (SSRIs) | 294 | \$10,081 | 1,563.4 | \$36.43 | \$4.75 | 220 | \$3,216 | 1,173.9 | \$15.48 | \$1.51 |
| Valproic Acid | 182 | \$20,753 | 971.1 | \$120.73 | \$9.77 | 169 | \$18,372 | 901.7 | \$115.10 | \$8.65 |
| Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) | 107 | \$16,920 | 570.9 | \$167.43 | \$7.97 | 30 | \$4,133 | 160.1 | \$145.88 | \$1.95 |
| Antidepressants - Misc. | 110 | \$7,458 | 586.9 | \$71.78 | \$3.51 | 110 | \$7,458 | 586.9 | \$71.78 | \$3.51 |
| Anticonvulsants - Benzodiazepines | 222 | \$1,860 | 1,184.5 | \$8.87 | \$0.88 | 222 | \$1,860 | 1,184.5 | \$8.87 | \$0.88 |
| Benzodiazepines | 320 | \$3,028 | 1,702.1 | \$10.05 | \$1.43 | 319 | \$2,958 | 1,696.8 | \$9.85 | \$1.39 |
| Opioid Antagonists | 17 | \$1,189 | 90.7 | \$74.05 | \$0.56 | 17 | \$1,189 | 90.7 | \$74.05 | \$0.56 |
| Attention-Deficit/Hyperactivity Disorder (ADHD) Agents | 23 | \$5,472 | 122.7 | \$251.89 | \$2.58 | - | \$0 | - | \$0.00 | \$0.00 |
| Butyrophenones | 80 | \$5,331 | 426.9 | \$70.56 | \$2.51 | 80 | \$5,331 | 426.9 | \$70.56 | \$2.51 |
| Modified Cyclics | 100 | \$913 | 533.6 | \$9.67 | \$0.43 | 100 | \$913 | 533.6 | \$9.67 | \$0.43 |
| Alpha-2 Receptor Antagonists (Tetracyclics) | 88 | \$2,668 | 469.5 | \$32.11 | \$1.26 | 88 | \$2,668 | 469.5 | \$32.11 | \$1.26 |
| Amphetamines | 24 | \$3,501 | 128.1 | \$154.44 | \$1.65 | 19 | \$2,447 | 101.4 | \$136.37 | \$1.15 |
| Monoamine Oxidase Inhibitors (MAOIs) | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antianxiety Agents - Misc. | 57 | \$644 | 304.1 | \$11.97 | \$0.30 | 57 | \$644 | 304.1 | \$11.97 | \$0.30 |
| Antiparkinson Anticholinergics | 196 | \$1,707 | 1,045.8 | \$9.22 | \$0.80 | 196 | \$1,707 | 1,045.8 | \$9.22 | \$0.80 |
| Antimanic Agents | 42 | \$1,157 | 224.1 | \$29.17 | \$0.54 | 42 | \$1,157 | 224.1 | \$29.17 | \$0.54 |
| Combination Psychotherapeutics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Phenothiazines | 39 | \$2,018 | 208.1 | \$54.79 | \$0.95 | 39 | \$2,018 | 208.1 | \$54.79 | \$0.95 |
| Stimulants - Misc. | 9 | \$1,684 | 48.0 | \$198.11 | \$0.79 | 4 | \$690 | 21.3 | \$182.57 | \$0.32 |
| Antihistamines - Phenothiazines | 29 | \$1,393 | 154.7 | \$50.87 | \$0.66 | 29 | \$1,393 | 154.7 | \$50.87 | \$0.66 |
| Opioid Agonists - Non-Patch | 132 | \$2,665 | 704.3 | \$21.38 | \$1.25 | 132 | \$2,665 | 704.3 | \$21.38 | \$1.25 |
| Antihistamines - Ethanolamines | 35 | \$262 | 186.7 | \$7.93 | \$0.12 | 35 | \$262 | 186.7 | \$7.93 | \$0.12 |
| Tricyclic Agents | 33 | \$311 | 176.1 | \$9.98 | \$0.15 | 33 | \$311 | 176.1 | \$9.98 | \$0.15 |
| Agents for Chemical Dependency | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Total | 3,794 | \$885,598 | 20,201.0 | \$247.66 | \$416.92 | 2,460 | \$118,490 | 13,099.2 | \$51.10 | \$55.78 |

Exhibit 1b
Hawaii Medicaid QUEST Behavioral Health Pharmacy Summary by Drug Class
Pharmacy Data Incurred 1/2011 - 12/2011, Paid Thru 3/2012
Rates Effective Calendar Year 2013
All Islands
Males and Females < 40

Member Months 2,368

| Drug Class | Total Multi-Source Brand Scripts | Total Multi-Source Brand Paid | Annual Utilization Per 1,000 | Average Cost Service | Multi-Source Brand Paid PMPM | Total Single-Source Brand Scripts | Total Single-Source Brand Paid | Annual Utilization Per 1,000 | Average Cost Service | Single-Source Brand Paid PMPM |
|---|----------------------------------|-------------------------------|------------------------------|----------------------|------------------------------|-----------------------------------|--------------------------------|------------------------------|----------------------|-------------------------------|
| Dibenzapines / Quinolinone Derivatives / Benzisoxazoles | 454 | \$292,102 | 2,417.1 | \$682.72 | \$137.52 | 540 | \$386,505 | 2,875.9 | \$759.23 | \$181.96 |
| Antipsychotics - Misc. | 83 | \$42,897 | 442.9 | \$547.21 | \$20.20 | - | \$0 | - | \$0.00 | \$0.00 |
| Anticonvulsants - Misc. | 49 | \$14,706 | 261.4 | \$317.76 | \$6.92 | 10 | \$1,275 | 53.4 | \$134.99 | \$0.60 |
| Selective Serotonin Reuptake Inhibitors (SSRIs) | 73 | \$6,865 | 389.5 | \$99.57 | \$3.23 | - | \$0 | - | \$0.00 | \$0.00 |
| Valproic Acid | 13 | \$2,381 | 69.4 | \$193.95 | \$1.12 | - | \$0 | - | \$0.00 | \$0.00 |
| Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) | 12 | \$1,921 | 64.0 | \$169.49 | \$0.90 | 65 | \$10,866 | 346.8 | \$176.99 | \$5.12 |
| Antidepressants - Misc. | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Anticonvulsants - Benzodiazepines | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Benzodiazepines | 1 | \$70 | 5.3 | \$74.02 | \$0.03 | - | \$0 | - | \$0.00 | \$0.00 |
| Opioid Antagonists | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Attention-Deficit/Hyperactivity Disorder (ADHD) Agents | - | \$0 | - | \$0.00 | \$0.00 | 23 | \$5,472 | 122.7 | \$251.89 | \$2.58 |
| Butyrophenones | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Modified Cyclics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Alpha-2 Receptor Antagonists (Tetracyclics) | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Amphetamines | - | \$0 | - | \$0.00 | \$0.00 | 5 | \$1,054 | 26.7 | \$223.11 | \$0.50 |
| Monoamine Oxidase Inhibitors (MAOIs) | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antianxiety Agents - Misc. | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antiparkinson Anticholinergics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antimanic Agents | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Combination Psychotherapeutics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Phenothiazines | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Stimulants - Misc. | - | \$0 | - | \$0.00 | \$0.00 | 5 | \$994 | 26.7 | \$210.54 | \$0.47 |
| Antihistamines - Phenothiazines | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Opioid Agonists - Non-Patch | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antihistamines - Ethanolamines | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Tricyclic Agents | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Agents for Chemical Dependency | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Total | 685 | \$360,942 | 3,649.6 | \$558.71 | \$169.92 | 648 | \$406,166 | 3,452.2 | \$664.67 | \$191.21 |

Exhibit 2a
Hawaii Medicaid CCS Behavioral Health Cost Model Summary
Non-Pharmacy Data Incurred 1/2008 - 12/2008, Paid Thru 12/2009
Pharmacy Data Incurred 1/2011 - 12/2011, Paid Thru 3/2012
Rates Effective Calendar Year 2013
All Islands
Males and Females 40+

| | |
|--------------------------------|--------------|
| Medical Member Months (CY2008) | 6,883 |
| Rx Member Months (CY2011) | 7,365 |

| Cost Model Line | Benefit | Total Admits | Total Days/Services | Total Paid | Annual Admits Per 1,000 | Average Length of Stay | Annual Utilization Per 1,000 | Average Cost Service | Paid PMPM |
|-----------------|--|--------------|---------------------|----------------|-------------------------|------------------------|------------------------------|----------------------|-----------|
| | CCS Claims Data | | | | | | | | |
| | Case Management / Administration Capitation | | 6,883 | \$2,632,867 | | | 12,000.0 | \$382.50 | \$382.50 |
| I99 | Inpatient Hospital Total | 11 | 38 | \$30,746 | 19.2 | 3.45 | 66.2 | \$893.33 | \$4.93 |
| O99 | Outpatient Hospital Total | | 820 | \$82,152 | | | 1,578.3 | \$107.93 | \$14.20 |
| | Professional | | | | | | | | |
| 80101 | Drug screen single | | 140 | \$1,010 | | | 269.5 | \$7.58 | \$0.17 |
| 85025 | Complete cbc w/auto diff wbc | | 68 | \$730 | | | 130.9 | \$11.29 | \$0.12 |
| 90772 | Ther/proph/diag inj, sc/im | | 159 | \$2,041 | | | 306.0 | \$13.49 | \$0.34 |
| 90801 | Psy dx interview | | 211 | \$22,726 | | | 406.1 | \$113.20 | \$3.83 |
| 90804 | Psytch office 20-30 min | | 217 | \$10,544 | | | 417.7 | \$51.07 | \$1.78 |
| 90805 | Psytch off 20-30 min w/e&m | | 319 | \$16,731 | | | 614.0 | \$55.12 | \$2.82 |
| 90806 | Psytch off 45-50 min | | 1,541 | \$110,016 | | | 2,966.1 | \$75.03 | \$18.55 |
| 90807 | Psytch off 45-50 min w/e&m | | 361 | \$27,826 | | | 694.9 | \$81.01 | \$4.69 |
| 90808 | Psytch office 75-80 min | | 24 | \$2,714 | | | 46.2 | \$118.84 | \$0.46 |
| 90809 | Psytch off 75-80 w/e&m | | 76 | \$8,954 | | | 146.3 | \$123.83 | \$1.51 |
| 90817 | Psytch hosp 20-30 min w/e&m | | 37 | \$2,127 | | | 71.2 | \$60.42 | \$0.36 |
| 90819 | Psytch hosp 45-50 min w/e&m | | 83 | \$6,847 | | | 159.8 | \$86.70 | \$1.15 |
| 90847 | Family psytch w/patient | | 26 | \$2,090 | | | 50.0 | \$84.50 | \$0.35 |
| 90853 | Group psychotherapy | | 160 | \$3,766 | | | 308.0 | \$24.74 | \$0.63 |
| 90862 | Medication management | | 1,238 | \$48,213 | | | 2,382.9 | \$40.93 | \$8.13 |
| 90870 | Electroconvulsive therapy | | 14 | \$994 | | | 26.9 | \$74.61 | \$0.17 |
| 99283 | Emergency dept visit | | 12 | \$491 | | | 23.1 | \$43.04 | \$0.08 |
| 99284 | Emergency dept visit | | 29 | \$2,190 | | | 55.8 | \$79.37 | \$0.37 |
| 99285 | Emergency dept visit | | 25 | \$2,980 | | | 48.1 | \$125.28 | \$0.50 |
| A0180 | Noner transport lodgng recip | | 428 | \$5,570 | | | 823.8 | \$13.68 | \$0.94 |
| A0427 | ALS1-emergency | | 1 | \$300 | | | 1.9 | \$315.30 | \$0.05 |
| A0428 | BLS | | - | \$0 | | | - | \$0.00 | \$0.00 |
| A0429 | BLS-emergency | | 15 | \$3,904 | | | 28.9 | \$273.53 | \$0.66 |
| H0004 | Alcohol and/or drug services | | 229 | \$928 | | | 440.8 | \$4.26 | \$0.16 |
| H0007 | Alcohol and/or drug services | | 769 | \$2,999 | | | 1,480.2 | \$4.10 | \$0.51 |
| H0020 | Alcohol and/or drug services | | 1,850 | \$4,436 | | | 3,560.9 | \$2.52 | \$0.75 |
| H0036 | Comm psy face-face per 15min | | 24,208 | \$49,472 | | | 46,595.5 | \$2.15 | \$8.34 |
| Z9002 | Alcohol and/or drug services | | 56 | \$3,356 | | | 107.8 | \$62.99 | \$0.57 |
| Z9004 | Comm psy face-face per 15min | | 71 | \$36,144 | | | 136.7 | \$535.03 | \$6.09 |
| Z9008 | Psytch off 75-80 w/e&m | | 15 | \$5,788 | | | 28.9 | \$405.58 | \$0.98 |
| All Other | All Other HCPCS | | 316 | \$1,874 | | | 608.2 | \$6.23 | \$0.32 |
| | Professional Total | | 32,698 | \$387,763 | | | 62,937.0 | \$12.46 | \$65.37 |
| Rx | Prescription Drug Total | | 12,904 | \$2,389,706.41 | | | 22,087.5 | \$196.47 | \$361.63 |
| | Total Medical | | 46,460 | \$2,890,368 | | | 86,669.0 | \$62.21 | \$446.13 |
| | CCS Total Capitation (Including Case Management and Admin) | | | \$5,523,235 | | | | | \$828.63 |

Milliman

Exhibit 2b
Hawaii Medicaid QUEST Behavioral Health Pharmacy Summary by Drug Class
Pharmacy Data Incurred 1/2011 - 12/2011, Paid Thru 3/2012
Rates Effective Calendar Year 2013
All Islands
Males and Females 40+

Member Months 7,365

| Drug Class | Total Scripts | Total Paid | Annual Utilization Per 1,000 | Average Cost Service | Paid PMPM | Total Generic Scripts | Total Generic Paid | Annual Utilization Per 1,000 | Average Cost Service | Generic Paid PMPM |
|---|---------------|--------------------|------------------------------|----------------------|-----------------|-----------------------|--------------------|------------------------------|----------------------|-------------------|
| Dibenzapines / Quinolinone Derivatives / Benzisoxazoles | 3,262 | \$1,704,925 | 5,582.8 | \$554.58 | \$258.01 | 694 | \$115,449 | 1,188.6 | \$176.39 | \$17.47 |
| Antipsychotics - Misc. | 371 | \$186,566 | 634.6 | \$533.87 | \$28.23 | - | \$0 | - | \$0.00 | \$0.00 |
| Anticonvulsants - Misc. | 920 | \$69,199 | 1,574.5 | \$79.81 | \$10.47 | 804 | \$23,142 | 1,375.5 | \$30.55 | \$3.50 |
| Selective Serotonin Reuptake Inhibitors (SSRIs) | 1,274 | \$45,717 | 2,179.9 | \$38.08 | \$6.92 | 1,039 | \$15,521 | 1,778.6 | \$15.85 | \$2.35 |
| Valproic Acid | 559 | \$58,520 | 957.0 | \$111.04 | \$8.86 | 487 | \$39,610 | 833.6 | \$86.29 | \$5.99 |
| Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) | 410 | \$64,454 | 701.5 | \$166.85 | \$9.75 | 141 | \$15,824 | 241.8 | \$118.83 | \$2.39 |
| Antidepressants - Misc. | 414 | \$33,757 | 708.4 | \$86.54 | \$5.11 | 414 | \$33,757 | 708.4 | \$86.54 | \$5.11 |
| Anticonvulsants - Benzodiazepines | 798 | \$6,568 | 1,365.2 | \$8.74 | \$0.99 | 798 | \$6,568 | 1,365.2 | \$8.74 | \$0.99 |
| Benzodiazepines | 1,423 | \$13,291 | 2,435.5 | \$9.91 | \$2.01 | 1,422 | \$13,269 | 2,433.8 | \$9.90 | \$2.01 |
| Opioid Antagonists | 22 | \$7,527 | 37.7 | \$362.25 | \$1.14 | 18 | \$2,724 | 30.9 | \$160.22 | \$0.41 |
| Attention-Deficit/Hyperactivity Disorder (ADHD) Agents | 31 | \$5,717 | 53.2 | \$195.25 | \$0.87 | - | \$0 | - | \$0.00 | \$0.00 |
| Butyrophenones | 181 | \$7,040 | 310.4 | \$41.18 | \$1.07 | 179 | \$6,919 | 307.0 | \$40.93 | \$1.05 |
| Modified Cyclics | 477 | \$7,138 | 816.4 | \$15.88 | \$1.08 | 477 | \$7,138 | 816.4 | \$15.88 | \$1.08 |
| Alpha-2 Receptor Antagonists (Tetracyclics) | 176 | \$3,764 | 301.9 | \$22.65 | \$0.57 | 176 | \$3,764 | 301.9 | \$22.65 | \$0.57 |
| Amphetamines | 151 | \$24,743 | 259.0 | \$173.49 | \$3.74 | 128 | \$16,218 | 219.5 | \$134.15 | \$2.45 |
| Monoamine Oxidase Inhibitors (MAOIs) | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antianxiety Agents - Misc. | 223 | \$2,768 | 382.5 | \$13.14 | \$0.42 | 223 | \$2,768 | 382.5 | \$13.14 | \$0.42 |
| Antiparkinson Anticholinergics | 338 | \$3,203 | 578.0 | \$10.06 | \$0.48 | 338 | \$3,203 | 578.0 | \$10.06 | \$0.48 |
| Antimanic Agents | 167 | \$3,184 | 286.4 | \$20.19 | \$0.48 | 167 | \$3,184 | 286.4 | \$20.19 | \$0.48 |
| Combination Psychotherapeutics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Phenothiazines | 53 | \$2,285 | 90.9 | \$45.65 | \$0.35 | 53 | \$2,285 | 90.9 | \$45.65 | \$0.35 |
| Stimulants - Misc. | 54 | \$2,176 | 92.6 | \$42.67 | \$0.33 | 45 | \$1,013 | 77.2 | \$23.83 | \$0.15 |
| Antihistamines - Phenothiazines | 145 | \$4,632 | 248.7 | \$33.83 | \$0.70 | 145 | \$4,632 | 248.7 | \$33.83 | \$0.70 |
| Opioid Agonists - Non-Patch | 1,095 | \$126,568 | 1,874.6 | \$122.61 | \$19.15 | 1,013 | \$89,112 | 1,734.0 | \$93.32 | \$13.49 |
| Antihistamines - Ethanolamines | 180 | \$1,172 | 308.7 | \$6.89 | \$0.18 | 175 | \$1,147 | 300.1 | \$6.94 | \$0.17 |
| Tricyclic Agents | 166 | \$2,329 | 284.7 | \$14.85 | \$0.35 | 166 | \$2,329 | 284.7 | \$14.85 | \$0.35 |
| Agents for Chemical Dependency | 13 | \$2,464 | 22.3 | \$200.65 | \$0.37 | 9 | \$1,883 | 15.4 | \$221.50 | \$0.28 |
| Total | 12,904 | \$2,389,706 | 22,087.5 | \$196.47 | \$361.63 | 9,113 | \$411,460 | 15,599.1 | \$47.90 | \$62.27 |

Exhibit 2b
Hawaii Medicaid QUEST Behavioral Health Pharmacy Summary by Drug Class
Pharmacy Data Incurred 1/2011 - 12/2011, Paid Thru 3/2012
Rates Effective Calendar Year 2013
All Islands
Males and Females 40+

Member Months 7,365

| Drug Class | Total | Total | Annual | Average | Multi-Source | Total | Total | Annual | Average | Single-Source |
|---|-------------------------------|----------------------------|--------------------------|-----------------|--------------------|--------------------------------|-----------------------------|--------------------------|-----------------|--------------------|
| | Multi-Source Brand Scripts | Multi-Source Brand Paid | Utilization Per 1,000 | Cost Service | Brand Paid PMPM | Single-Source Brand Scripts | Single-Source Brand Paid | Utilization Per 1,000 | Cost Service | Brand Paid PMPM |
| Dibenzapines / Quinolinone Derivatives / Benzisoxazoles | 1,432 | \$812,034 | 2,450.9 | \$601.66 | \$122.88 | 1,135 | \$777,442 | 1,943.2 | \$726.52 | \$117.65 |
| Antipsychotics - Misc. | 370 | \$186,329 | 632.9 | \$534.64 | \$28.20 | 1 | \$237 | 1.7 | \$250.45 | \$0.04 |
| Anticonvulsants - Misc. | 66 | \$28,768 | 113.2 | \$461.50 | \$4.35 | 50 | \$17,290 | 85.8 | \$366.12 | \$2.62 |
| Selective Serotonin Reuptake Inhibitors (SSRIs) | 234 | \$30,196 | 401.3 | \$136.63 | \$4.57 | - | \$0 | - | \$0.00 | \$0.00 |
| Valproic Acid | 72 | \$18,910 | 123.5 | \$278.08 | \$2.86 | - | \$0 | - | \$0.00 | \$0.00 |
| Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) | 4 | \$1,760 | 6.9 | \$465.83 | \$0.27 | 265 | \$46,870 | 452.8 | \$187.97 | \$7.09 |
| Antidepressants - Misc. | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Anticonvulsants - Benzodiazepines | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Benzodiazepines | 1 | \$21 | 1.7 | \$22.52 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Opioid Antagonists | - | \$0 | - | \$0.00 | \$0.00 | 4 | \$4,803 | 6.9 | \$1,271.36 | \$0.73 |
| Attention-Deficit/Hyperactivity Disorder (ADHD) Agents | - | \$0 | - | \$0.00 | \$0.00 | 31 | \$5,717 | 53.2 | \$195.25 | \$0.87 |
| Butyrophenones | 2 | \$121 | 3.4 | \$63.96 | \$0.02 | - | \$0 | - | \$0.00 | \$0.00 |
| Modified Cyclics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Alpha-2 Receptor Antagonists (Tetracyclics) | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Amphetamines | - | \$0 | - | \$0.00 | \$0.00 | 23 | \$8,525 | 39.4 | \$392.42 | \$1.29 |
| Monoamine Oxidase Inhibitors (MAOIs) | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antianxiety Agents - Misc. | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antiparkinson Anticholinergics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Antimanic Agents | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Combination Psychotherapeutics | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Phenothiazines | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Stimulants - Misc. | 1 | \$814 | 1.7 | \$861.79 | \$0.12 | 8 | \$350 | 13.7 | \$46.29 | \$0.05 |
| Antihistamines - Phenothiazines | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Opioid Agonists - Non-Patch | 77 | \$36,054 | 132.1 | \$495.75 | \$5.46 | 5 | \$1,402 | 8.6 | \$296.91 | \$0.21 |
| Antihistamines - Ethanolamines | 5 | \$24 | 8.6 | \$5.19 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Tricyclic Agents | - | \$0 | - | \$0.00 | \$0.00 | - | \$0 | - | \$0.00 | \$0.00 |
| Agents for Chemical Dependency | - | \$0 | - | \$0.00 | \$0.00 | 4 | \$581 | 6.9 | \$153.74 | \$0.09 |
| Total | 2,265 | \$1,115,031 | 3,876.2 | \$522.38 | \$168.74 | 1,526 | \$863,215 | 2,612.1 | \$600.10 | \$130.63 |