



HUSKY BEHAVIORAL HEALTH PHARMACY DATA

2/1/08 – 12/31/09

BACKGROUND

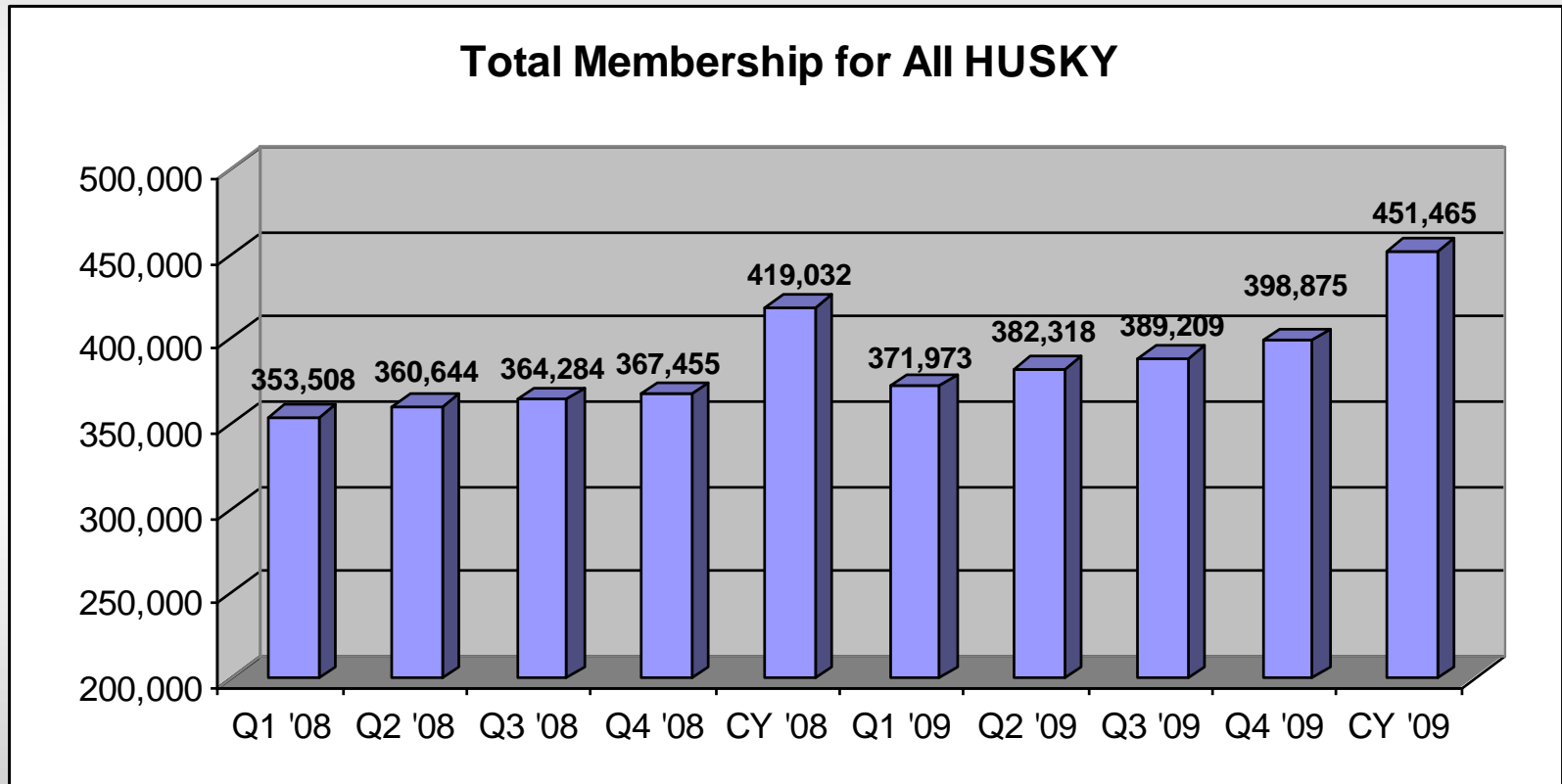
- Last summary covered 2/1/08-6/30/08
- Current summary compares six month periods from 2008 to 2009 with the exception of 2/1/08-6/30/08 when only 5 months of data was available
- Since the last report was submitted:
 - Recommendations from DCF Medical Directors, CORE, Clinical Operations, and BHOC have been incorporated into the report content and format

Significant Changes in Reports since last cycle

- “Number of prescriptions” metric was replaced by “Number of consumers” metric
- “DCF approves meds” vs. “DCF does not approve meds” distinction was dropped and replaced with “DCF Involved” vs. “Non-DCF Involved” for the child population when appropriate
- “DCF Involved” describes youth with any type of DCF involvement (voluntary, involuntary, etc.)

CHARACTERISTICS OF HUSKY BEHAVIORAL HEALTH MEDICATION UTILIZERS

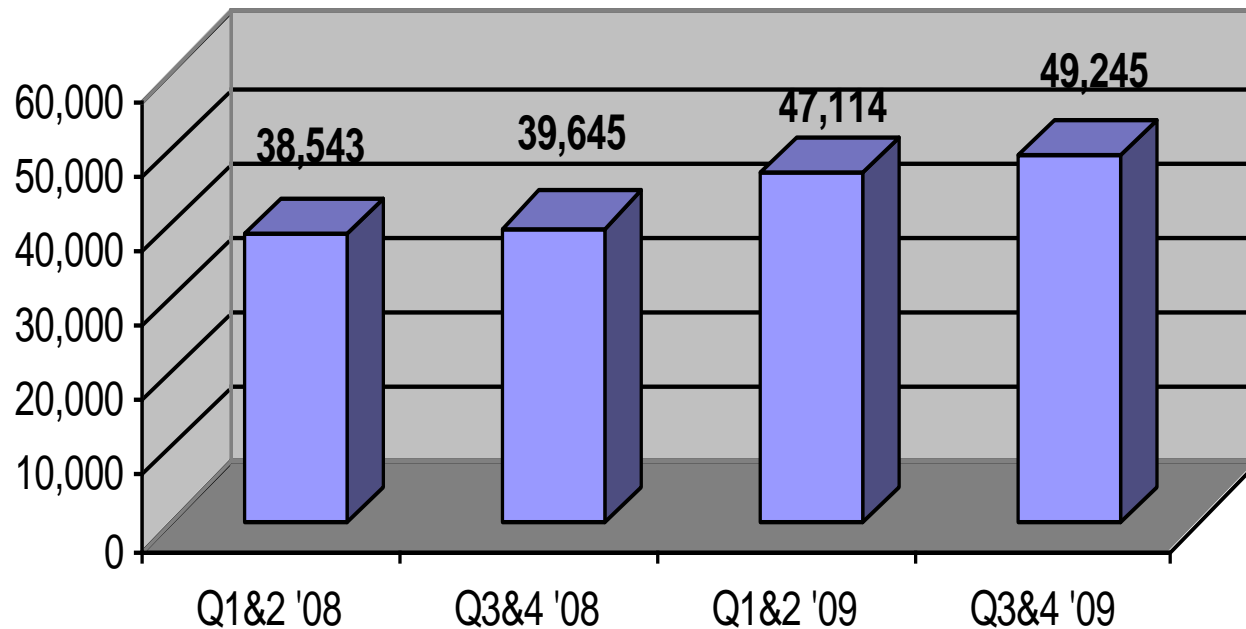
Increases in HUSKY Membership



- There was a 12.8% increase from Q1 '08 to Q4 '09 in total membership for all HUSKY
- Largest increases in membership occurred during 2009
 - 7.7% increase in total membership from 2008 to 2009

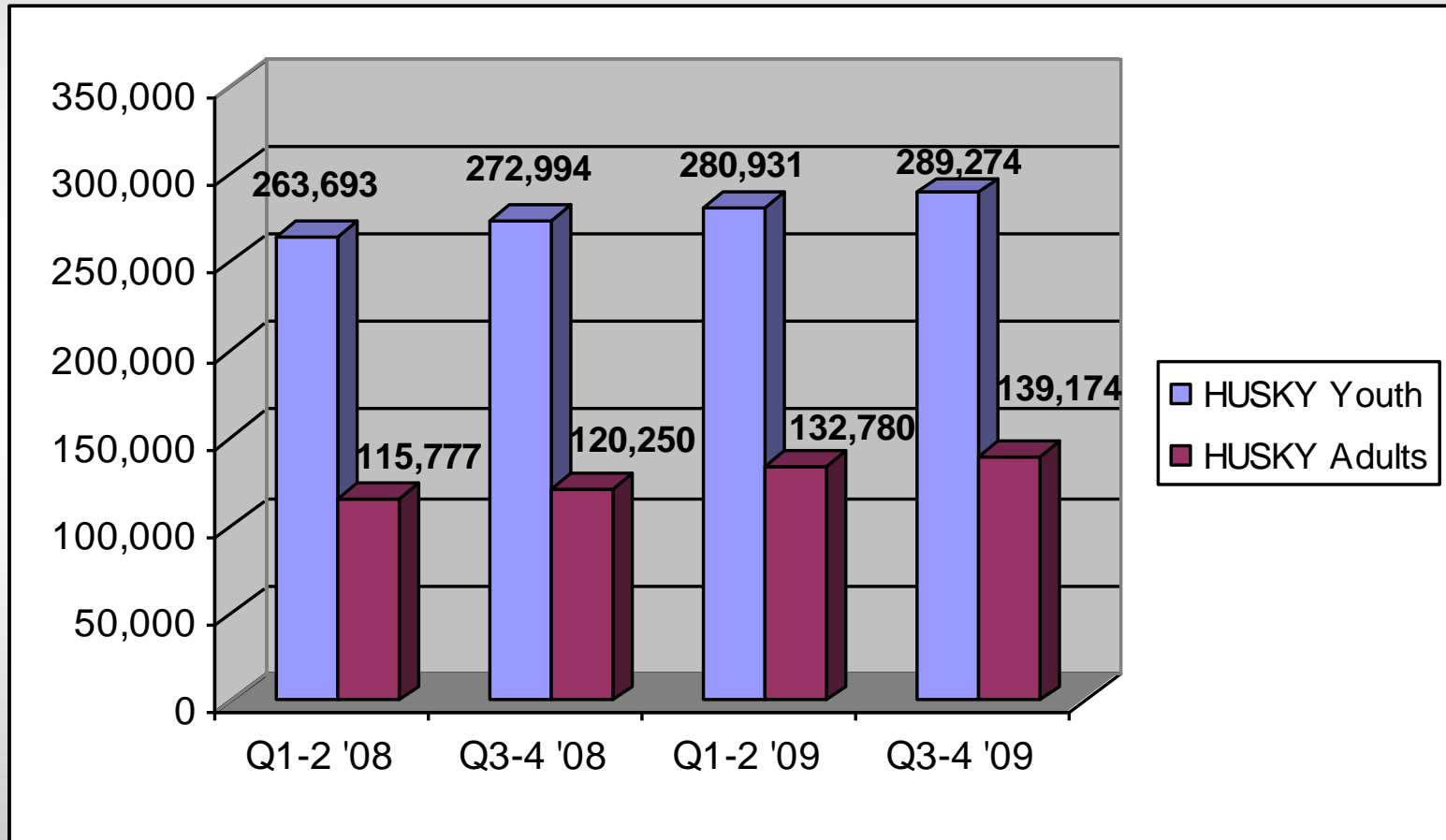
Increases in HUSKY Behavioral Health Medication Utilizers

Total Number of HUSKY Behavioral Health (BH) Med Utilizers



- Growth in HUSKY membership accounts for some but not all of the increase in number of BH Med Consumers
- There was a 27.8% increase in the total number of HUSKY BH med consumers, from Q1-2 '08 to Q3-4 '09
- The % of HUSKY members who are utilizing BH medications climbed from 10.2% in 2008 to 11.5% in Q3-4 '09.

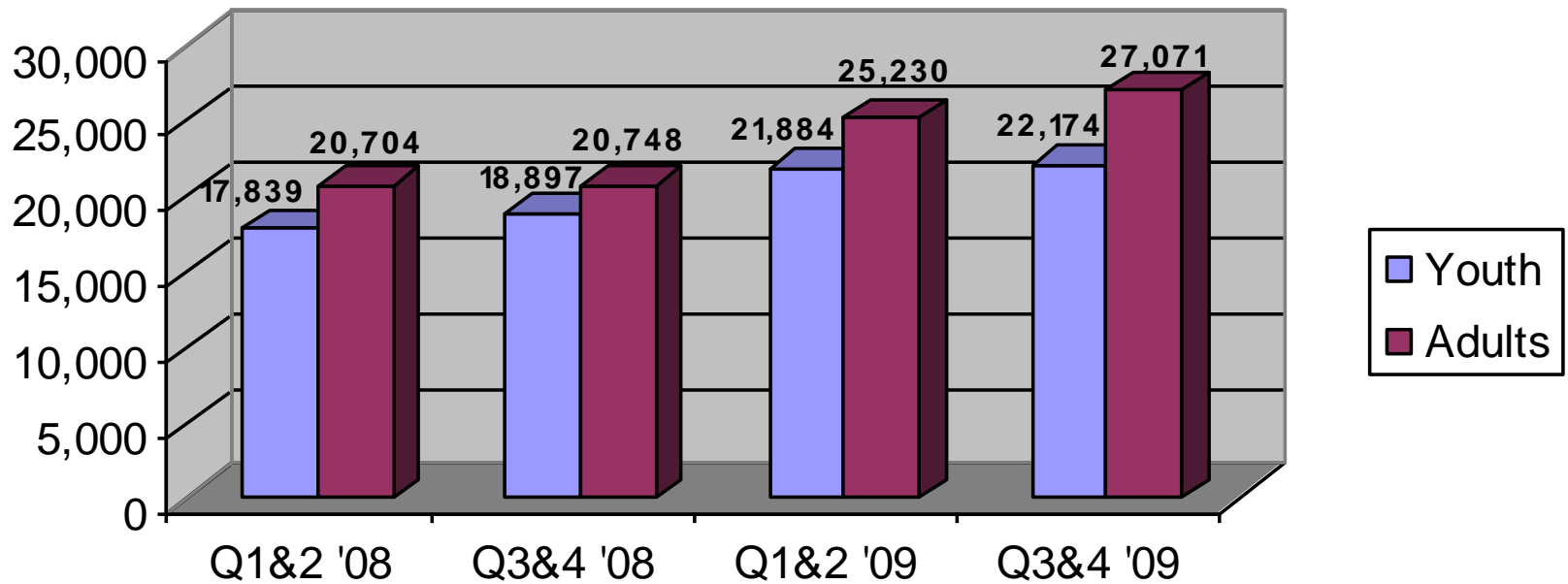
Comparison of # of HUSKY Youth vs. Adult Members



- Children accounted for 67.5% of the HUSKY population in 2009
- HUSKY youth membership increased 9.3% between Q1 '08 and Q4 '09.
- HUSKY adult membership increased 21.04% between Q1 '08 and Q4 '09

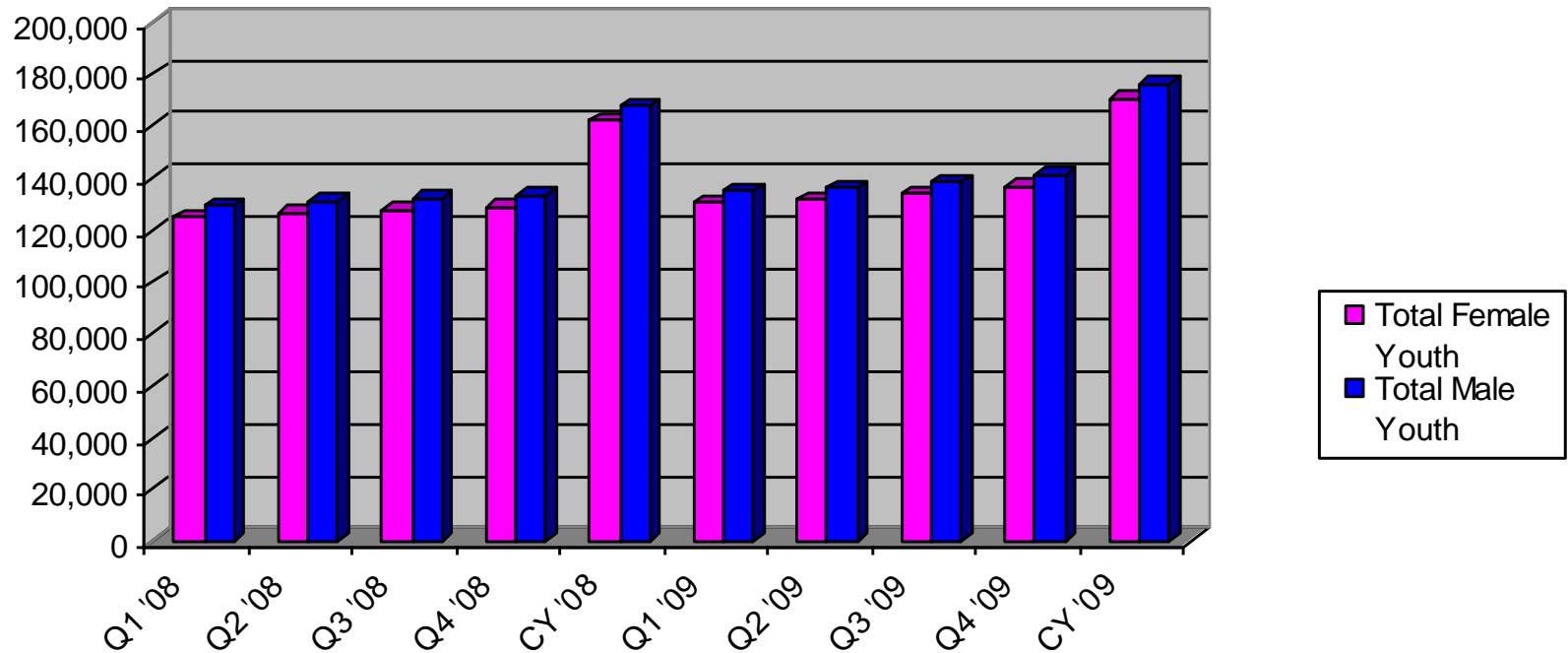
Comparison of # of HUSKY Youth vs. Adult BH Med Utilizers

**Comparison of Number of HUSKY Youth and Adult
BH Med Utilizers**



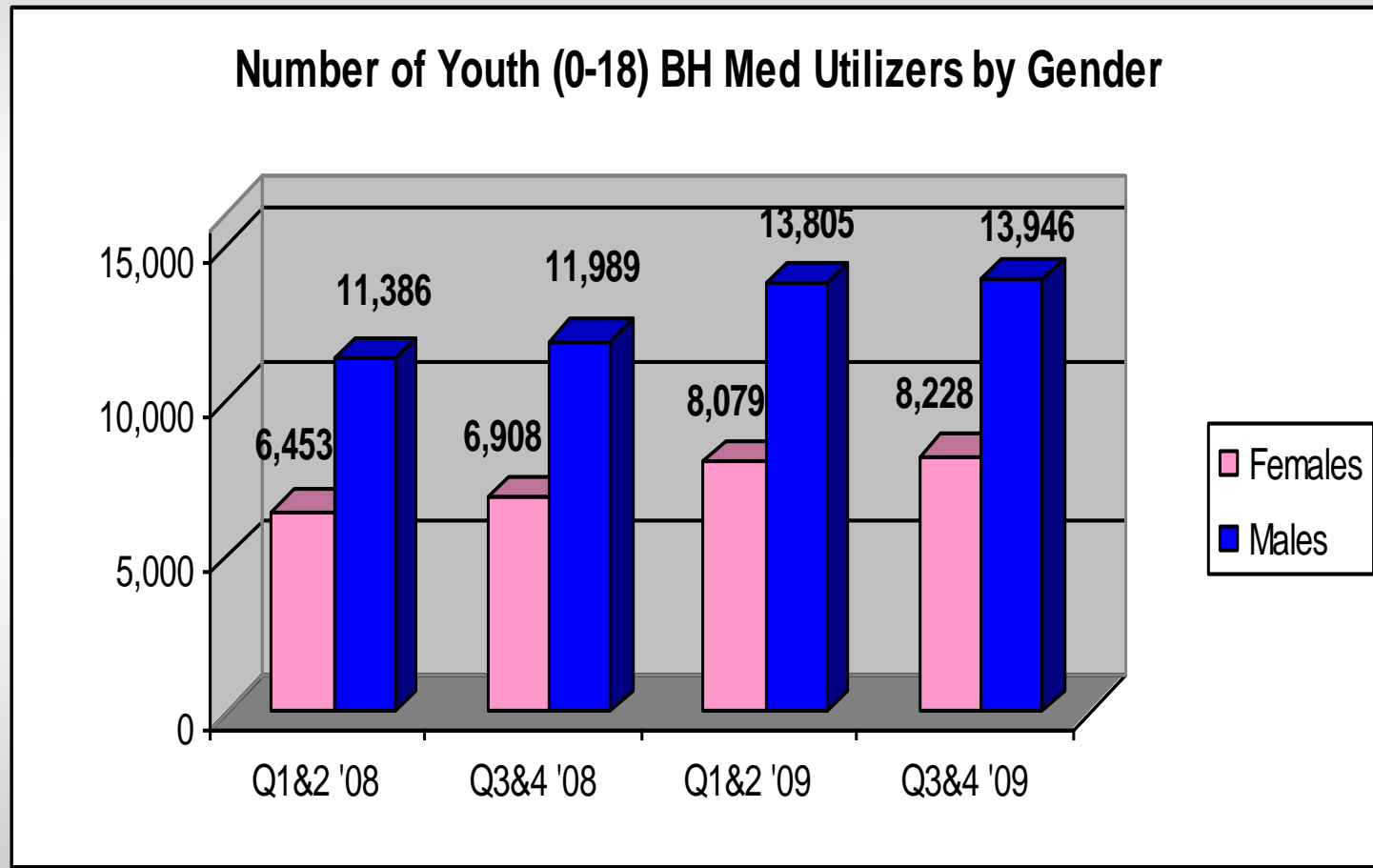
- HUSKY Youth BH med utilizers increased 24.3% from Q1-2 '08 to Q3-4 '09
- The % of HUSKY Youth utilizing BH meds increased from 6.9% in Q1-2 '08 to 7.7% in Q3-4 '09
- HUSKY adult BH med utilizers increased 30.8% from Q1-2 '08 to Q3-4 '09
- Although 34% of the HUSKY population are adults, 55% of the BH med utilizers are adults
- The % of HUSKY Adults utilizing BH meds increased from 17.9% in Q1-2 '08 to 19.5% in Q3-4 '09

HUSKY Youth (0-18) Membership by Gender



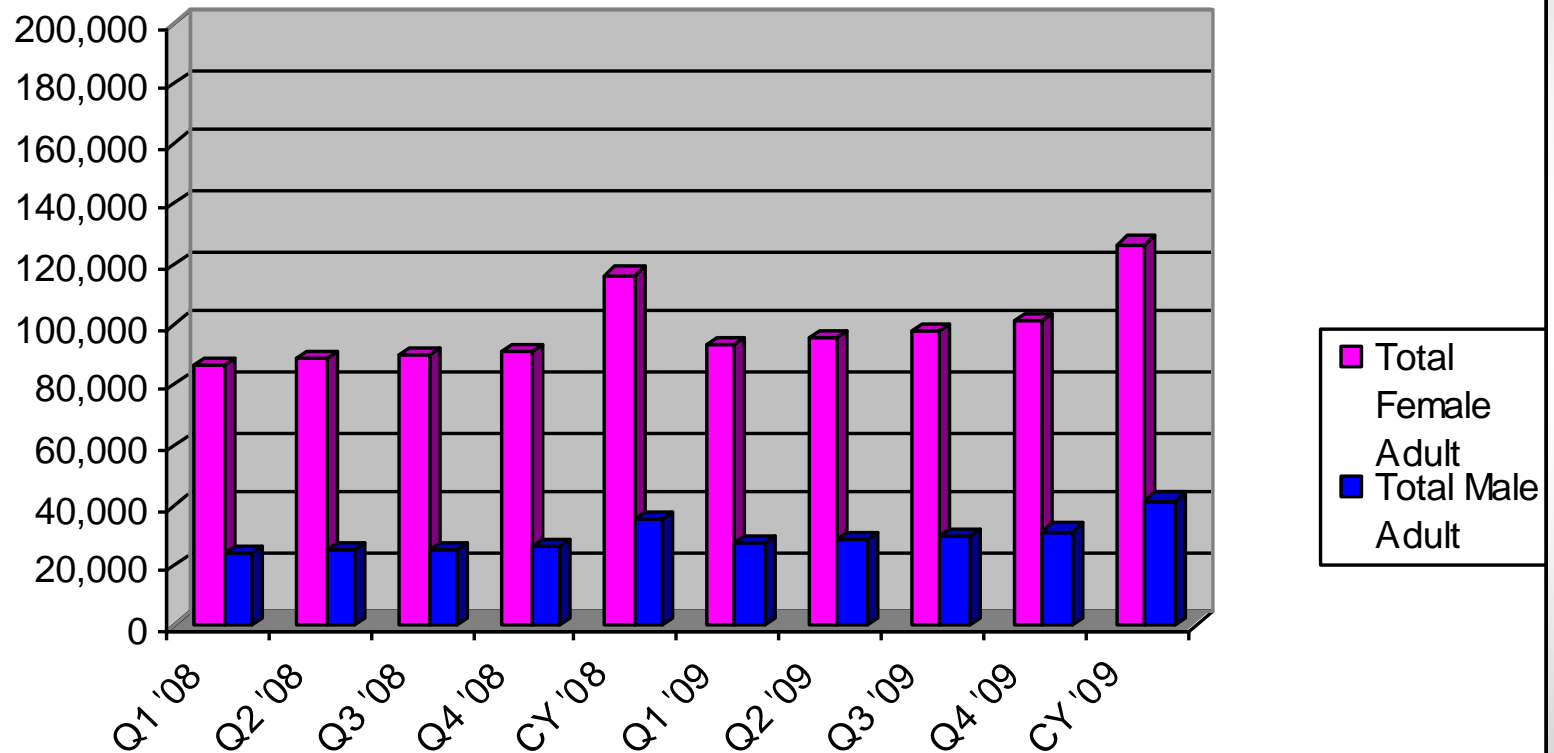
- There are consistently slightly more HUSKY male youth than HUSKY female youth
- The HUSKY youth population increase by gender was similar (5.3% for female, 5.0% for male) from 2008 to 2009

Youth BH Medication Utilizers: Gender Differences



- The gender differences in BH medication utilization far exceeds any differences that could be accounted for by membership
- For HUSKY youth (0 – 18), the number of male utilizers of BH medications is more than 40% greater than the number of female utilizers

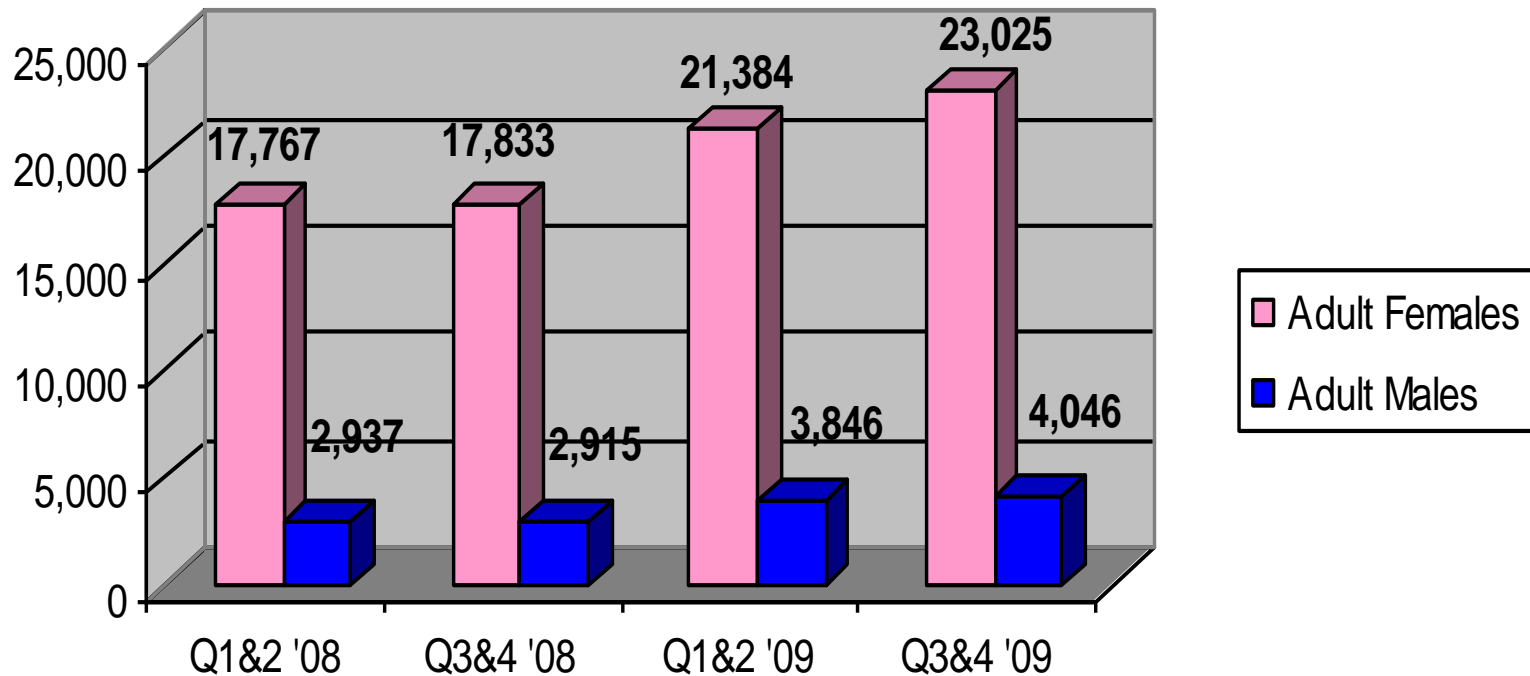
HUSKY Adult Membership by Gender



- Slightly more than 75% of the HUSKY adult population for 2009 were females
- There was an 8.7% increase in the population of HUSKY adult females (19+) between 2008 and 2009
- There was a 17.6% increase in the population of HUSKY adult males between 2008 and 2009

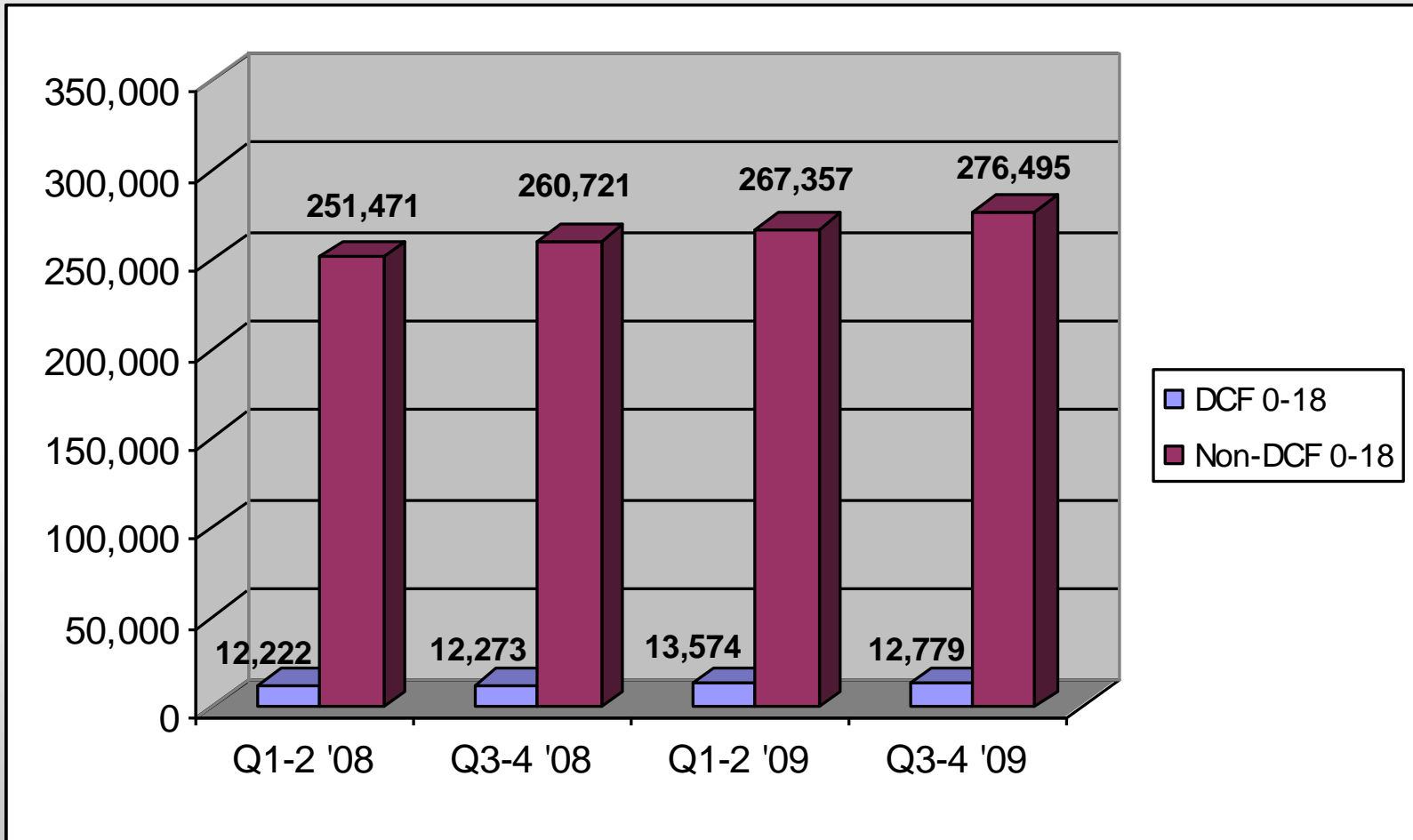
Adult BH Medication Utilizers: Gender Differences

Number of HUSKY Adults (19+) BH Med Utilizers by Gender



- While 75% of the HUSKY adult population are females, slightly more than 85% of the adult utilizers are females.

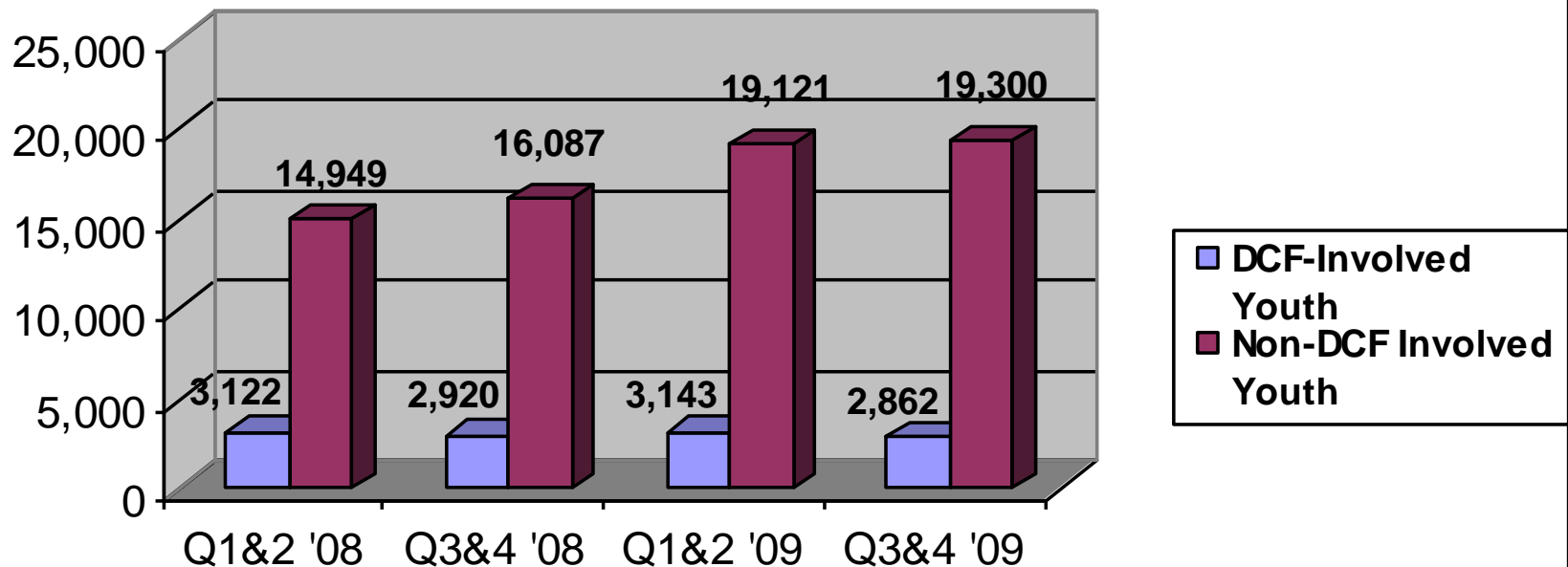
Membership: DCF vs Non-DCF Youth (0-18)



- “DCF-Involved” includes youth involved in any way with DCF (e.g., Voluntary, Dually Committed, JJ, etc.)
- Slightly more than 4% of the HUSKY youth membership are DCF-Involved

Comparison of # of DCF-Involved and Non-DCF Involved Youth BH Med Utilizers (0-18)

DCF vs. Non-DCF Involved Youth Consumers of BH Meds



- The % of DCF-Involved Youth utilizing BH medications has trended downward over the past 3 six month periods of time
 - In Q1-2 '08, 25.5% of DCF-Involved Youth utilized BH meds
 - In Q3-4 '09, 22.4% utilized BH meds
- There is more fluctuation in the % of Non-DCF-Involved Youth utilizing BH meds
 - ~6% of Non-DCF-Involved Youth utilized BH meds in '08
 - ~7% utilized BH meds in '09

BEHAVIORAL HEALTH (BH) MEDICATION USE BY THERAPEUTIC CLASS

7 BH Therapeutic Classes

- Antianxiety Agents
- Antidepressants
- Antiparkinsonian Agents (Meds used to counteract side effects of antipsychotics)
- Antipsychotic/ Antimanic Agents
- Hypnotics
- Mood Stabilizers
 - Lithium (a mood stabilizer) is broken out
- Stimulants

% of Total HUSKY Youth (0-18) Utilizers on BH Meds within Each Therapeutic Class

	Q1&2 '08	Q3&4 '08	Q1&2 '09	Q3&4 '09
Anti-Anxiety Agents	17.9%	20.1%	19.1%	18.4%
Antidepressants	22.8%	22.6%	23.7%	23.9%
Antiparkinsonian Agents	1.2%	1.0%	1.3%	1.2%
Antipsychotic/ Antimanic Agents (#2)	30.5%	29.5%	28.8%	28.6%
Hypnotics	2.5%	2.8%	2.7%	2.4%
Lithium	2.5%	2.3%	2.1%	2.0%
Mood Stabilizers	14.6%	14.1%	13.8%	13.7%
Stimulants (#1)	52.5%	51.3%	52.2%	52.8%

- More than 50% of HUSKY Youth BH med utilizers are on stimulants
- Close to 30% of HUSKY Youth BH med utilizers are on Antipsychotics
- Suggest breaking this out by DCF and Non-DCF Involved subgroups

% of Total HUSKY Young Adults (19-24) Utilizers on BH Meds within Each Therapeutic Class

	Q1&2 '08	Q3&4 '08	Q1&2 '09	Q3&4 '09
Anti-Anxiety Agents (#2)	29.8%	32.6%	29.9%	31.4%
Antidepressants (#1)	57.7%	59.1%	57.4%	55.6%
Antiparkinsonian Agents	2.7%	2.2%	2.7%	2.4%
Antipsychotic/ Antimanic Agents	22.9%	21.6%	23.6%	21.1%
Hypnotics	10.3%	10.9%	9.9%	9.6%
Lithium	2.5%	2.5%	2.4%	2.1%
Mood Stabilizers	25.1%	24.5%	25.2%	24.2%
Stimulants	7.9%	8.9%	9.5%	9.8%

- Young adult HUSKY BH med utilizers have a similar profile to that of HUSKY adults
- This suggests that young adults be combined with adults in next cycle

% of Total HUSKY Adults (25+) Utilizers on BH Meds within Each Therapeutic Class

	Q1&2 '08	Q3&4 '08	Q1&2 '09	Q3&4 '09
Anti-Anxiety Agents (#2)	36.2%	37.3%	37.1%	37.4%
Antidepressants (#1)	65.4%	65.6%	65.8%	65.6%
Antiparkinsonian Agents	2.2%	2.2%	2.4%	2.2%
Antipsychotic/ Antimanic Agents	15.4%	14.8%	15.6%	15.7%
Hypnotics	14.9%	16.0%	16.0%	15.7%
Lithium	1.4%	1.3%	1.3%	1.3%
Mood Stabilizers	28.8%	29.2%	29.5%	29.8%
Stimulants	4.7%	5.0%	5.5%	5.6%

- HUSKY adult BH med utilzers have a different profile than the youth
- HUSKY adults are either the parents or relative caregivers of HUSKY youth who live in the home of the HUSKY youth or are pregnant women

Most Frequently Used Individual BH Medications

Most Frequently Used BH Meds for DCF-Involved Youth

(Meds listed are utilized by >2% of population)

Medications for ADHD

Ritalin (10%)
Adderall (5%)
Vyvanse (4%)
Strattera (3%)

Atypical Antipsychotics

Abilify (11%)
Risperdol (10%)
Seroquel (8%)

Antianxiety

Hydroxyzine (2.5%)

Antidepressants

Prozac (4.5%)
Zoloft (4%)
Zyban (3%)
Desyrel (2.5%)
Celexa (2%)

Mood Stabilizers

Lithium (3%)
Depakote (3%)
Lamictal (2.5%)

Most Frequently Used BH Meds for Non-DCF Involved Youth

(Meds listed are utilized by >2% of population)

Medications for ADHD

Ritalin (17%)
Adderall (8%)
Vyvanse (6.5%)
Strattera (3%)
Focalin 3%)

Antianxiety

Hydroxyzine (10%)

Atypical Antipsychotics

Risperdol (7%)
Abilify (5%)
Seroquel (3%)

Antidepressants

Zoloft (3.5%)
Prozac (3%)

Most Frequently Used BH Meds for HUSKY Adults

(Meds listed are utilized by >2% of population)

Antianxiety Agents

Xanax (6.5%)
Ambien (6%)
Klonopin (5%)
Ativan (4.5%)
Valium (3.5%)

Atypical Antipsychotics

Seroquel (3%)

Mood Stabilizers

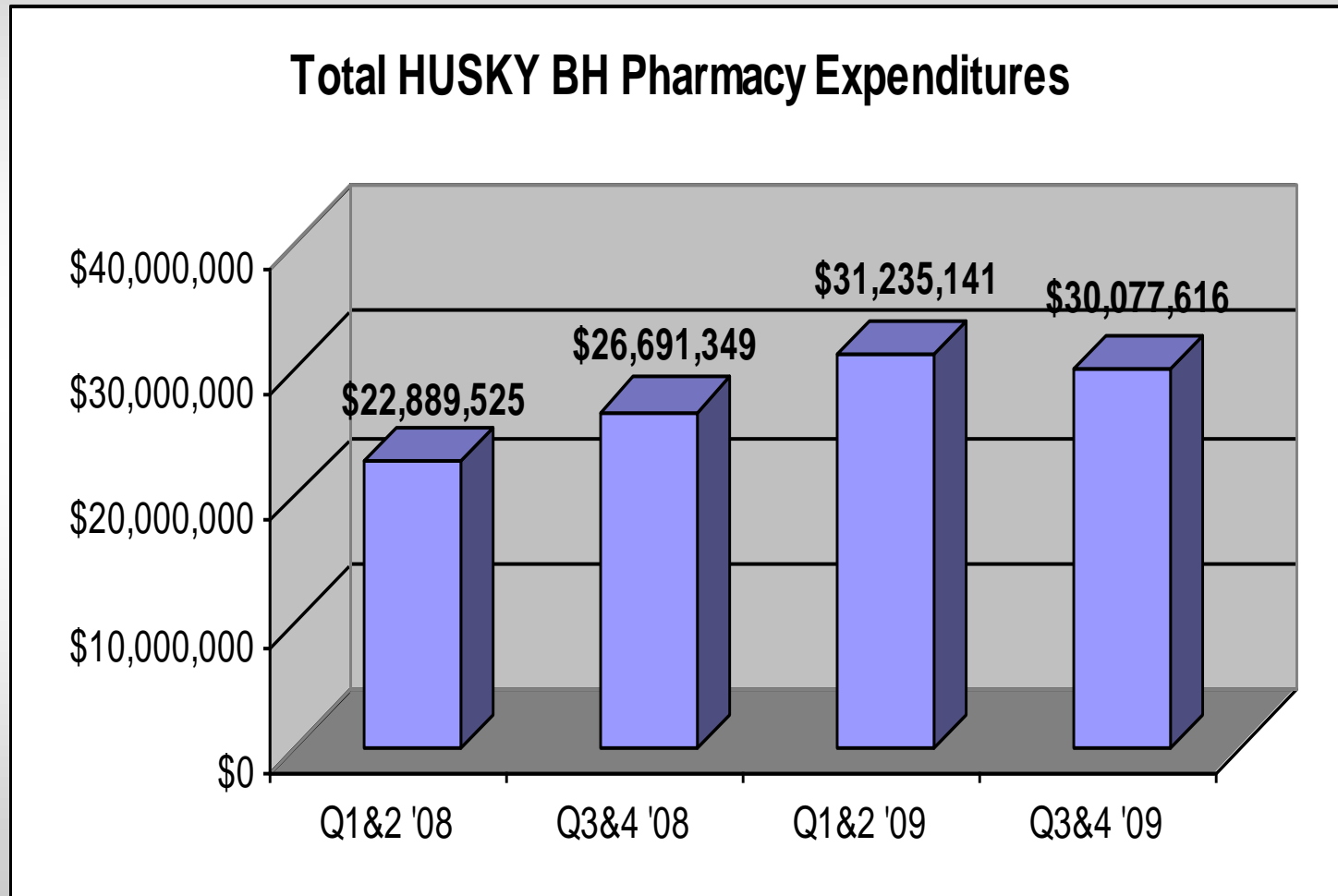
Neurontin (3%)

Antidepressants

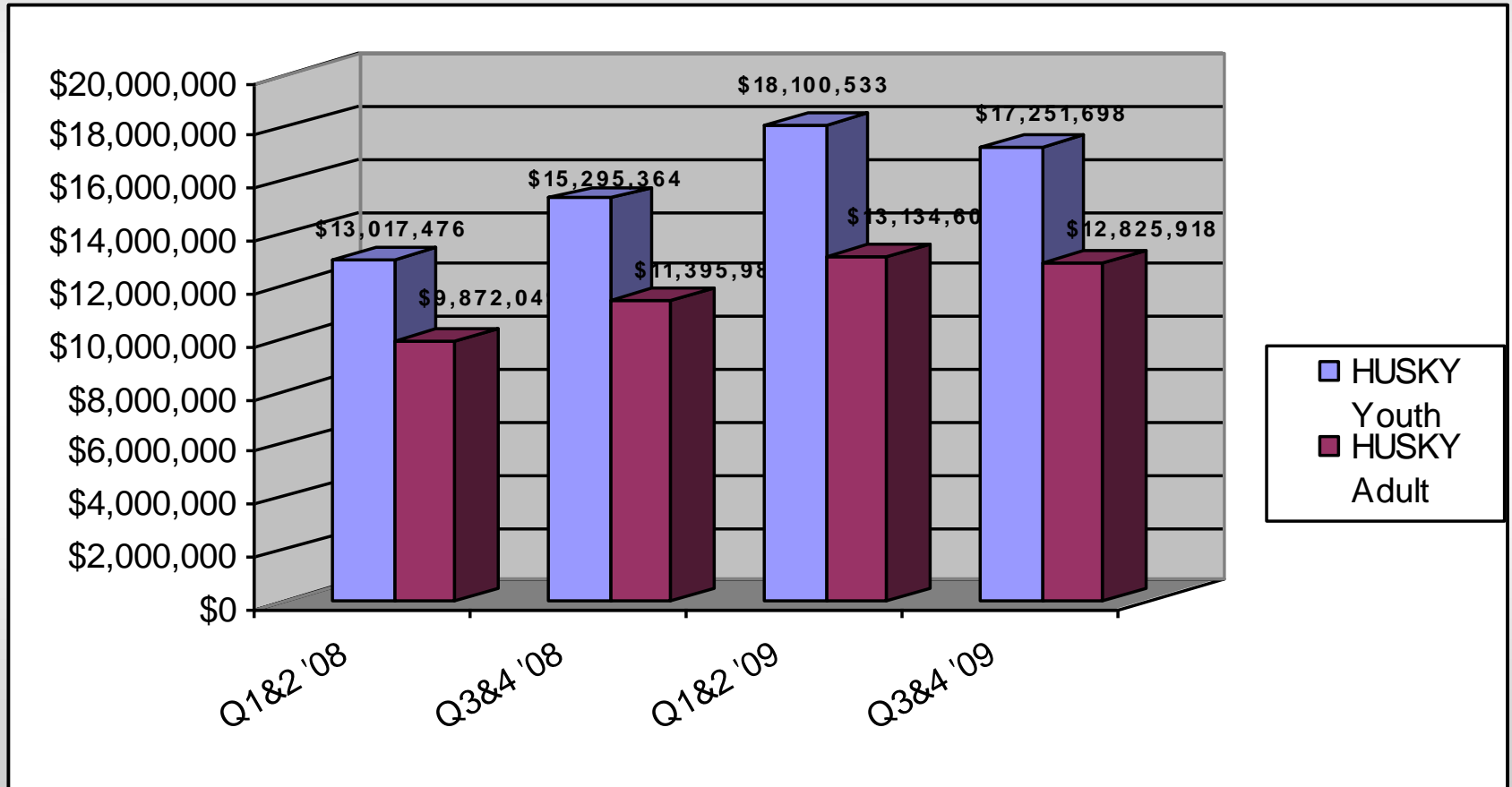
Zoloft (6%)
Lexapro (6%)
Zyban (5%)
Desyrel (4.5%)
Prozac (3%)
Celexa (3%)
Cymbalta (3%)
Paxil (2.5%)
Elavil (2.5%)
Effexor (2%)

EXPENDITURE ANALYSIS

HUSKY BH Meds Expenditures



HUSKY BH Med Expenditures: Youth vs. Adults



Expenditure by Therapeutic Class: All HUSKY Youth

	Q1&2 '08	Q3&4 '08	Total '08	Q1&2 '09	Q3&4 '09	Total '09
Antianxiety Agents	\$54,483	\$60,898	\$115,381	\$73,253	\$72,960	\$146,213
Antidepressants	\$581,510	\$618,891	\$1,200,401	\$616,038	\$616,215	\$1,232,253
Antiparkinsonian Agents	\$7,970	\$8,508	\$16,478	\$9,376	\$10,673	\$20,049
Antipsychotic/ Antimanic Agents (#1)	\$6,548,310	\$7,469,605	\$14,017,914	\$8,710,831	\$8,499,001	\$17,209,831
Hypnotics	\$21,171	\$23,968	\$45,140	\$20,445	\$18,067	\$38,512
Lithium	\$48,271	\$53,272	\$101,542	\$52,485	\$48,040	\$100,525
Mood Stabilizers	\$1,694,117	\$2,002,089	\$3,696,206	\$2,008,922	\$1,449,423	\$3,458,345
Stimulants (#2)	\$4,061,643	\$5,058,257	\$9,119,900	\$6,609,184	\$6,537,769	\$13,146,953
Total	\$13,017,476	\$15,295,487	\$28,312,963	\$18,100,533	\$17,252,148	\$35,352,682

Expenditure by Therapeutic Class: HUSKY Adults (19+)

	Q1&2 '08	Q3&4 '08	Total '08	Q1&2 '09	Q3&4 '09	Total '09
Antianxiety Agents	\$312,655	\$349,808	\$662,463	\$314,555	\$327,082	\$641,636
Antidepressants (#1)	\$3,046,739	\$3,448,335	\$6,495,074	\$3,845,213	\$4,234,390	\$8,079,604
Antiparkinsonian Agents	\$74,874	\$66,797	\$141,671	\$77,557	\$77,272	\$154,830
Antipsychotic/ Antimanic Agents (#2)	\$2,710,086	\$3,192,637	\$5,902,723	\$4,349,069	\$4,858,349	\$9,207,418
Hypnotics	\$529,832	\$528,599	\$1,058,431	\$432,963	\$402,830	\$835,793
Lithium	\$20,674	\$25,355	\$46,028	\$27,567	\$27,463	\$55,029
Mood Stabilizers	\$2,684,382	\$3,118,062	\$5,802,444	\$3,174,288	\$1,877,020	\$5,051,308
Stimulants	\$492,807	\$666,393	\$1,159,200	\$913,396	\$1,021,512	\$1,934,908
Total	\$9,872,049	\$11,395,986	\$21,268,035	\$13,134,608	\$12,825,918	\$25,960,526

Expenditure Related to Specific BH Medications

Top 10 BH Meds Associated with Highest Expenditure

DCF-Involved Youth

	Generic Name	Brand Name	Therapeutic Class	Total Expenditure Q3&4 '09
1	Aripiprazole	Abilify	Antipsychotic	\$1,669,702
2	Quetiapine Fumarate	Seroquel	Antipsychotic	\$848,476
3	Methylphenidate HCl	Ritalin	Stimulants	\$340,575
4	Risperidone	Risperdol	Antipsychotic	\$295,979
5	Olanzapine	Zyprexa	Antipsychotic	\$266,339
6	Amphetamine-Dextroamphetamine	Adderall	Stimulants	\$256,748
7	Ziprasidone HCl	Geodon	Antipsychotic	\$176,651
8	Atomoxetine HCl	Strattera	Stimulants	\$153,701
9	Lisdexamfetamine Dimesyla	Vyvanse	Stimulants	\$118,381
10	Divalproex Na	Depakote	Mood Stabilizer	\$81,584

Top 5 Highest Expenditure BH Health Meds for DCF-Involved Youth

(Rank-Ordered)

	Generic Name	Brand Name	Therapeutic Class	Average Paid per Utilizer Q3&4 '09
1	Olanzapine	Zyprexa	Antipsychotic	\$2,833 (94)
2	Aripiprazole	Abilify	Antipsychotic	\$2,485 (672)
3	Ziprasidone HCl	Geodon	Antipsychotic	\$1,803 (98)
4	Paliperidone	Ingeva	Antipsychotic	\$1,741 (25)
5	Quetiapine Fumarate	Seroquel	Antipsychotic	\$1,674 (507)

Top 10 BH Meds Associated with Highest Expenditure

Non-DCF-Involved Youth

	Generic Name	Brand Name	Therapeutic Class	Total Expenditure Q3&4 '09
1	Aripiprazole	Abilify	Antipsychotic	\$2,826,129
2	Methylphenidat HCl	Ritalin	Stimulants	\$2,363,926
3	Amphetamine Dextroamphetamine	Adderall	Stimulants	\$1,215,088
4	Quetiapine Fumarate	Seroquel	Antipsychotic	\$1,060,018
5	Lisdexamfetamine Dimesyla	Vyvanse	Stimulants	\$805,743
6	Risperidone	Risperdol	Antipsychotic	\$735,184
7	Atomoxetine HCl	Strattera	Stimulants	\$588,189
8	Dexmethylphenidate HCl	Focalin	Stimulants	\$395,475
9	Oxcarbazepine	Trileptal	Mood Stabilizer	\$303,729
10	Olanzapine	Zyprexa	Antipsychotic	\$224,315

Top 5 Highest Expenditure BH Health Meds for Non-DCF-Involved Youth

(Rank-Ordered)

	Generic Name	Brand Name	Therapeutic Class	Average Expenditure per Utilizer Q3&4 '09
1	Aripiprazole	Abilify	Antipsychotic	\$1,850 (1,527)
2	Rufinamide	Banzel	Mood Stabilizer	\$1,677 (10)
3	Olanzapine	Zyprexa	Antipsychotic	\$1,602 (140)
4	Felbamate	Felbatol	Mood Stabilizer	\$1,504 (2)
5	Paliperidone	Ingeva	Antipsychotic	\$1,472 (78)

Top 10 BH Meds Associated with Highest Expenditure

HUSKY Adults

	Generic Name	Brand Name	Therapeutic Class	Total Expenditure Q3&4 '09
1	Aripiprazole	Abilify	Antipsychotic	\$1,879,953
2	Quetiapine Fumarate	Seroquel	Antipsychotic	\$1,685,067
3	Escitalopram Oxalate	Lexapro	Antidepressant	\$1,021,970
4	Duloxetine HCl	Cymbalta	Antidepressant	\$979,132
5	Bupropion HCl	Zyban	Antidepressant	\$756,327
6	Venlafaxine HCl	Effexor	Antidepressant	\$726,343
7	Amphetamine Dextroamphetamine	Adderall	Stimulants	\$382,182
8	Lamotrigine	Lamictal	Mood Stabilizer	\$365,306
9	Ziprasidone HCl	Geodon	Antipsychotic	\$334,054
10	Olanzapine	Zyprexa	Antipsychotic	\$322,066

Top 5 Highest Expenditure BH Health Meds for HUSKY Adults

(Rank-Ordered)

	Generic Name	Brand Name	Therapeutic Class	Average Paid per Utilizer Q3&4 '09
1	Olanzapine	Zyprexa	Antipsychotic	\$3528 (12)
2	Paliperidone	Ingeva	Antipsychotic	\$3416 (4)
3	Felbamate	Felbatol	Mood Stabilizer	\$2920 (1)
4	Risperidone Microspheres	Long-Acting Risperdol	Antipsychotic	\$2321 (14)
5	Selegiline	Eldepryl	Antiparkinson Agent	\$2,058 ()

Brand vs. Generic Utilization

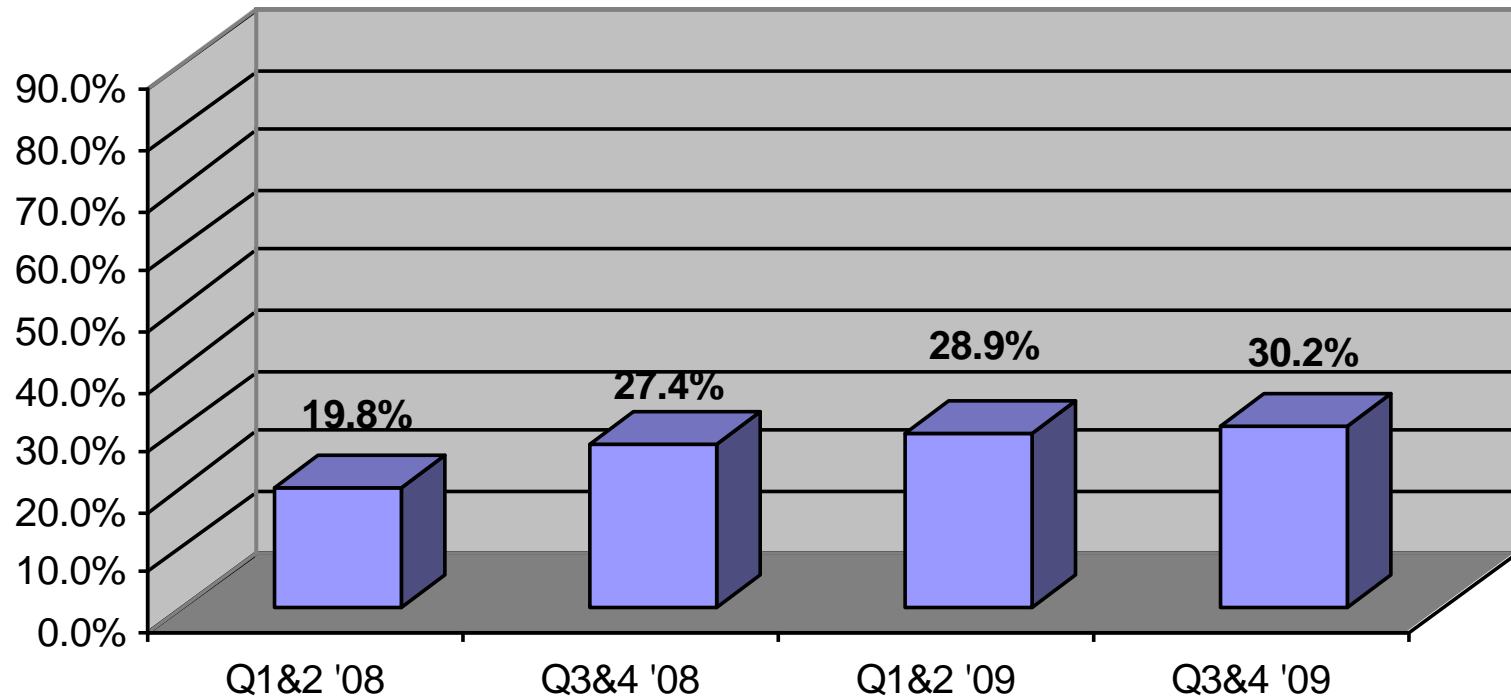
Generic Drug Definition

- According to the FDA, a generic drug is identical--or bioequivalent--to a brand name drug in dosage form, safety, strength, route of administration, quality, performance characteristics and intended use.

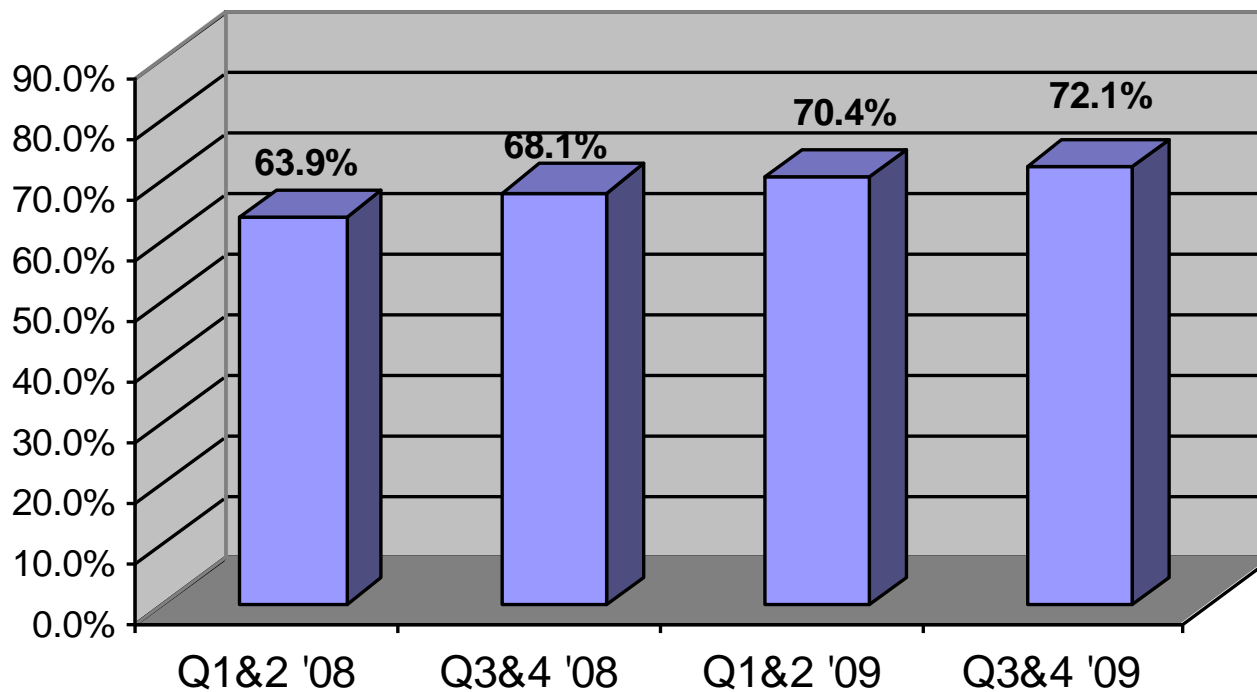
DSS Pharmacy Policy

- Prescriptions written as "**Brand Medically Necessary (BMN)**"* for drugs with FDA approved generic equivalents will require Prior Authorization. If a brand drug which does have a generic equivalent is on our Preferred Drug List, then a Prior Authorization is not needed for coverage.

% of all Child BH Medication Prescriptions Filled as Generic

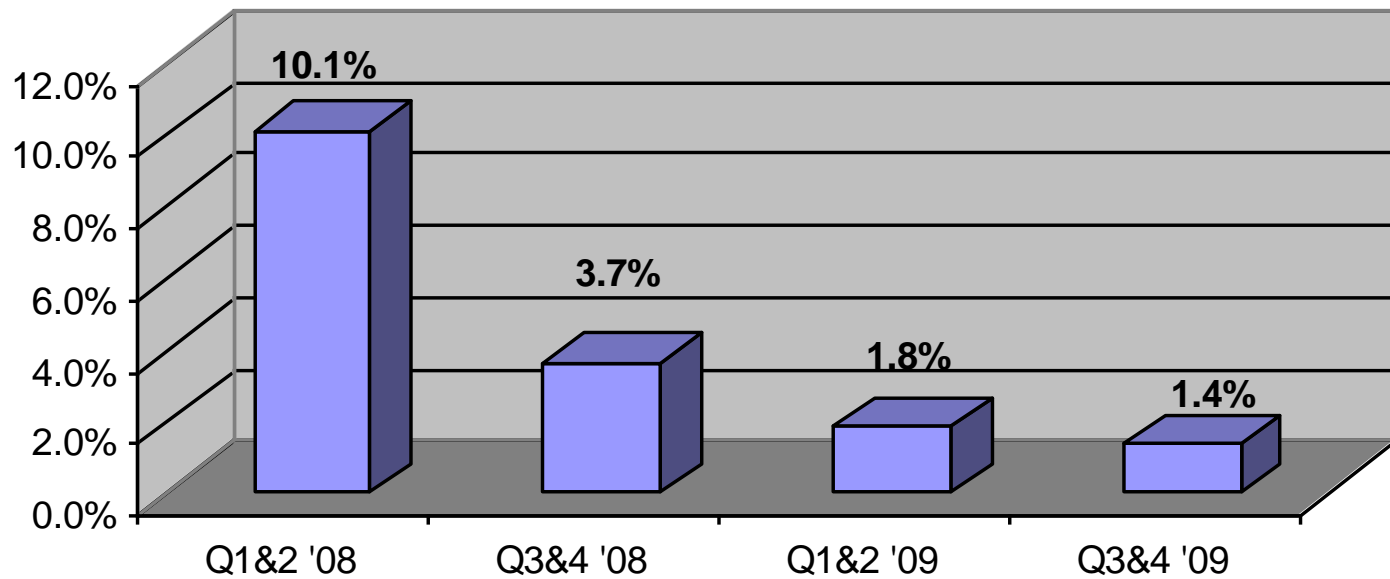


% of all Adult BH Medication Prescriptions Filled as Generic

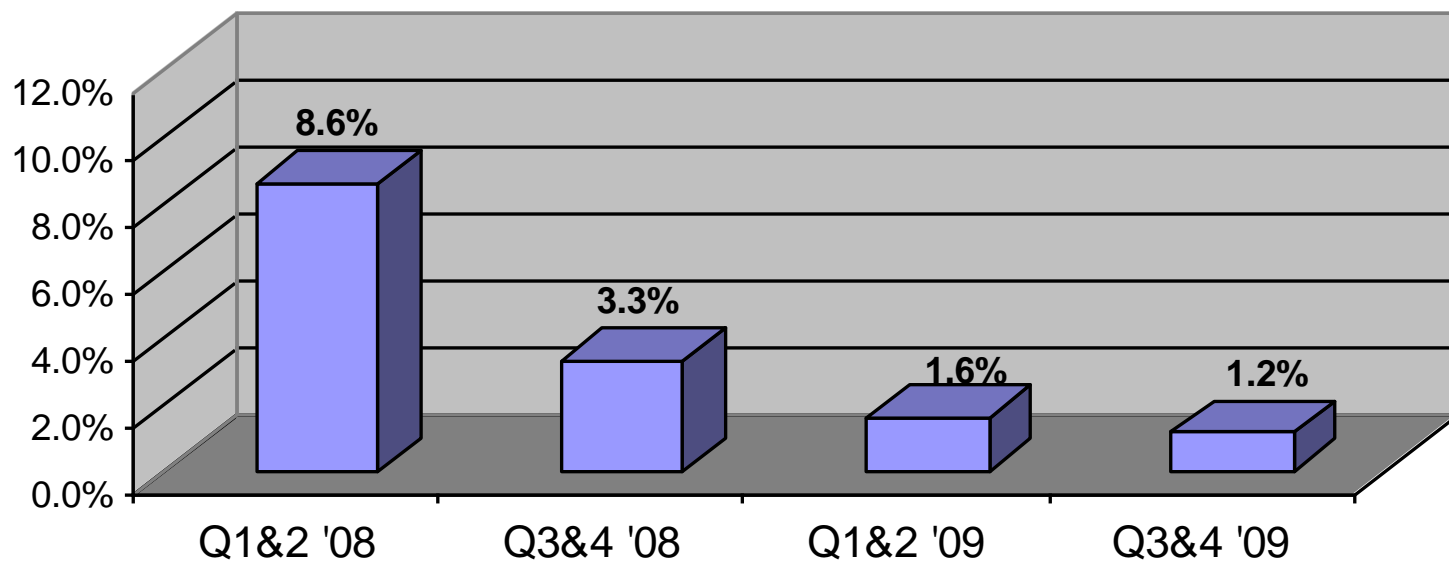


- HUSKY children have significantly lower % of prescriptions for BH medications filled as generic as compared to HUSKY adults

Frequency of Child BH Med Prescriptions Filled as Brand when Generic is Available



Frequency of Adult BH Medication Prescriptions Filled as Brand when Generic is Available



- Over the past two years, fewer prescriptions are filled as brand when there is a generic available

Conclusions

- Pharmacotherapy as an intervention for both youth and adults in HUSKY population is increasing faster than membership growth
- HUSKY adults use behavioral health medication at a disproportionately greater percent than HUSKY youth (19.5% vs. 11.5% Q3-Q4 '09)
- Profiles of specific medication classes is distinctly different for HUSKY youth than either adults or young adults; though the latter two groups are very similar in their use
- Among youth, DCF identified youth use medications with a three fold increase over non-DCF youth
- HUSKY youth medication patterns reflect a much greater use of “off label” medications than adults, and also have a higher percent use of antipsychotic medications than either adult or young adult groups

Opportunities

- Current pharmacy analysis now provides significant historical systems wide trends;
- To create shifts in actual pharmacy practice based on other state's efforts would require multifocal approach to enhance quality, efficiency and consumer focused prescribing practices
 - Profiling of provider practices
 - Benchmarking based on other state's practices (13 state Medicaid study)
 - Integration of current pharmacy stakeholders and managers across departments, academic institutions and other stakeholders
 - CT BHP pharmacy data,
 - DSS DUR
 - DSS formulary
 - DCF PMAC
 - UConn/DSS pharmacy study