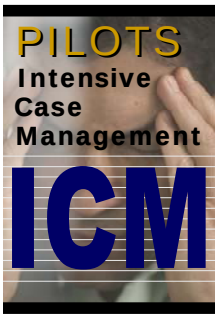
DSHS | About the King County ICM Pilot Participants

REPORT 4.63 | **Baseline demographics, health conditions, criminal involvement, and use of alcohol/drug treatment**

David Mancuso, Ph.D., Daniel J. Nordlund, Ph.D., Bill Luchansky, Ph.D., Barbara E.M. Felver, M.E.S., M.P.A.
In collaboration with the
Health and Recovery Services Administration Division of Alcohol and Substance Abuse



N 2005, the Washington State Legislature passed Senate Bill 5763, a wide-ranging piece of legislation designed to change several aspects of publicly funded substance abuse and mental health treatment in Washington State.

One provision in that legislation created pilot programs to provide intensive case management (ICM) for a target population of persons with histories of high utilization of crisis services coupled with a primary chemical dependency diagnosis or dual primary chemical dependency and mental health diagnosis. The DSHS Division of Alcohol and Substance Abuse (DASA) is responsible for implementing the pilots.

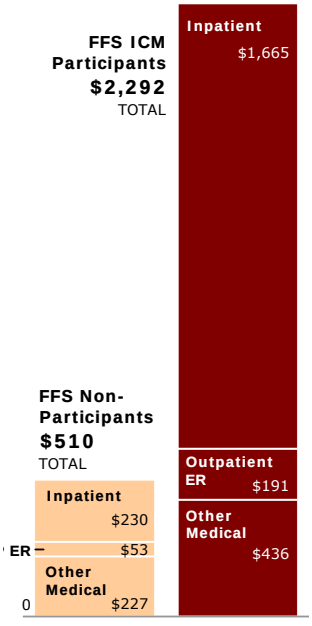
This report provides a preliminary examination of the pilot in King County, which has been in operation since November of 2005. The county contracted with an agency whose primary focus is housing homeless adults with the aim of providing case management services to a select group of their residents. For illustrative purposes, ICM participants are compared with DASA patients who were not participating in ICM but were admitted to alcohol/drug treatment in 2006.

This report focuses on two issues:

1. Whether the target population is being served, and
2. Whether contracted providers are meeting service expectations.

ICM participants have higher PMPM medical costs

FEE-FOR-SERVICE (FFS) patients only



Key Findings

There are several distinct differences between ICM participants and non-participants:

- **Medical costs –** The King County pilot is successfully targeting patients with high medical risk. Among patients enrolled in fee-for-service DSHS medical coverage, medical costs for ICM participants averaged $2,292 per member per month, compared to $510 for non-participants. Most of the difference is due to extremely high baseline inpatient acute care costs for ICM participants.
- **Arrests –** The King County pilot is successfully targeting patients who are at increased risk of criminal justice involvement.
- **Use of detoxification services –** ICM participants are more likely than non-participants to have used detox services in the baseline period.
- **Use of psychiatric inpatient services –** ICM participants were more likely than non-participants to have been hospitalized in a community psychiatric facility in the baseline period.
- **Demographic differences –** ICM participants were more likely to be older, male, and Native American, and less likely to be African American.

A Context for Intensive Care Management

The Legislation

The goal of SB 5763 was to more fully integrate treatment for mental health and chemical dependency disorders and in the process improve treatment for patients with co-occurring disorders. The ICM pilots play an important role in this integration by: 1) targeting those with co-occurring disorders, 2) using screening and assessment instruments specifically designed for the co-occurring population, and 3) employing case managers who are familiar with the target population. Features of the pilots include:

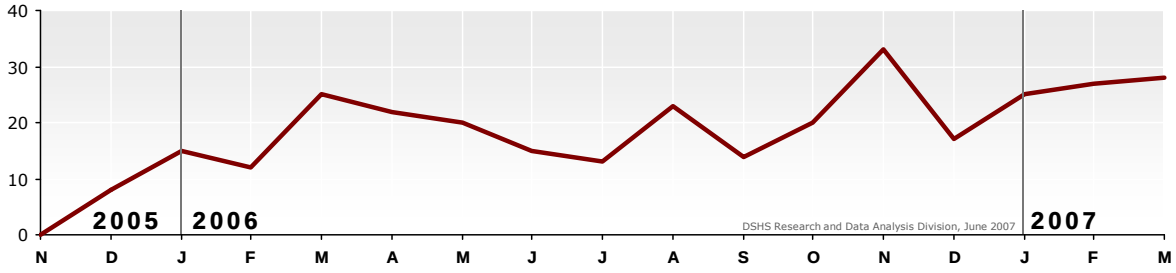
- **Two DASA-selected sites,** one in Thurston/Mason and one in King County.
- **Specific requirements for chemical dependency case managers,** including training in and use of screening and assessment tools. In addition, case managers must assist patients as they seek access to other DSHS services (e.g., medical coverage or economic assistance programs) and work with other providers to insure that patient needs are being met.
- **A two-year pilot period.** Funds for these programs became effective in July 2005, though the first patients were not served until November of that year. Funding runs through June 2008. Analyses presented here will focus on ICM participants receiving services from startup through December 2006, and comparison patients receiving treatment in 2006.

The King County Pilot

The King County ICM Pilot proposed to serve 75 people annually, with each case manager handling approximately 35 to 40 individuals. Records from DASA's TARGET database show a great deal of variation in the number served per month, ranging from a low of 13 to a high of 33 patients in 2006. TARGET records show that 55 received ICM services in 2006.[1]

ICM Participants Served per Month

KING COUNTY



TIMEFRAMES

ICM PARTICIPANTS VERSUS NON-PARTICIPANTS – Throughout this report, ICM participants are compared to non-participants, defined as those adults who did not receive ICM services but were admitted to alcohol/drug treatment in King County in 2006.

DEFINING TREATMENT ENTRY – Comparisons of service utilization were done by examining data in the year prior to each patient's **program entry date.**

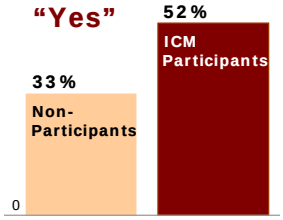
- For ICM participants, the program entry date is the date in 2006 when they began receiving ICM services. This date is gathered from the TARGET database.
- For non-participants, the program entry date was defined as the date of their first admission to substance abuse treatment in 2006.

For patients in both groups, the **year prior to program entry** is defined as the 12 months prior to the month including the program entry date.

[1] ICM funds provide employment for two case managers at the contractor's facility. The contractor employs several case managers, but only two have been designated to enter data into TARGET. If a patient begins receiving services from one of the designated case managers and shifts to another manager's caseload, subsequent services are not being entered into TARGET. This arrangement could account for some of the low monthly counts shown on page 2.

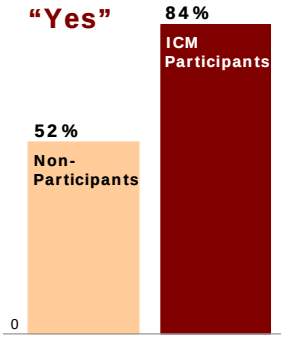
Past Year Measures | All Patients

Arrested in year prior to entry?



Medical coverage in year prior to entry?

DSHS fee-for-service medical



Past Year Differences Between ICM Participants and Non-Participants

Data from the year prior to program entry documents how ICM participants differed from non-participants in the key areas of criminal justice involvement, DSHS medical coverage, and DSHS service utilization.

Three key findings emerge from the data:

- ICM participants were more likely to have an arrest recorded in the Washington State Patrol (WSP) database, 52 percent versus 33 percent for non-participants.
- A higher percentage of ICM participants received fee-for-service DSHS medical coverage in the prior year, 84 percent versus 52 percent. This indicates that ICM participants were more likely to receive medical coverage under the Medicaid Disabled, GA-U or ADATSA programs.
- ICM participants were far more likely to have received detoxification services (63 percent versus 14 percent), but only somewhat more likely to have received alcohol/drug treatment in the prior year (42 percent versus 32 percent).

Demographic data show that ICM participants are significantly older than non-participants, more likely to be Native American, less likely to be African American, and far more likely to be male.

All Patients | Received Alcohol or Substance Abuse Services in Year Prior to Entry

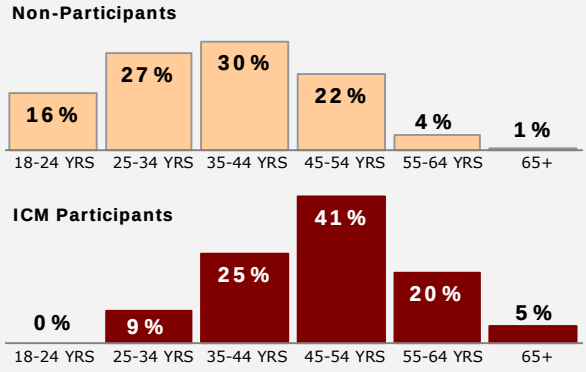
Services administered by DSHS Division of Alcohol and Substance Abuse	Non-Participants *n = 7,617*	ICM Participants *n = 64*
Any DASA Service*	**54.4%**	**79.7%**
Any Alcohol or Drug Treatment*	**32.2%**	**42.2%**
Outpatient Treatment	19.2%	26.6%
Residential Treatment	14.0%	31.3%
Opiate Substitution Treatment	7.7%	0.0%
Detoxification	**14.0%**	**62.5%**
Assessment	**42.2%**	**39.1%**

*Patients may receive more than one type of service; thus, subcategories will not sum to the overall percentages shown for "Any Alcohol or Drug Treatment" or "Any DASA Service."

DEMOGRAPHICS

KING COUNTY | ALL PATIENTS

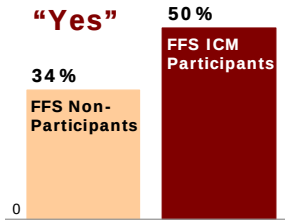
AGE DISTRIBUTION



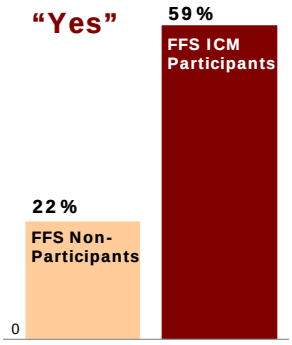
	Non-Participants *n = 7,617*	ICM Participants *n = 64*
RACE | ETHNICITY		
White	56.5%	53.1%
Black	21.9%	7.8%
Native American	6.7%	29.7%
Hispanic	8.4%	4.7%
Asian|Pacific Islander	3.6%	3.1%
Other|Unknown	2.9%	1.6%
GENDER		
Male	66.0%	90.6%
Female	34.0%	9.4%

Past Year Measures | Fee-for-Service (FFS) Medical Patients

Arrest(s) in year prior to entry?



Received detoxification in year prior to entry?



Past Year Differences Between ICM Participants and Non-Participants

Fee-for-Service (FFS) DSHS Medical patients are an important subgroup in this study because of the availability of additional medical data. Prior year measures for the subset of patients enrolled in fee-for-service medical coverage show very similar results to the comparisons for all patients. Specifically:

- FFS ICM participants were more likely to have a previous arrest, 50 percent versus 34 percent.
- FFS ICM participants were over 2.5 times more likely to have received detoxification services.
- FFS ICM participants were somewhat more likely to have received alcohol or drug treatment, but less likely to have received an assessment for treatment (43 percent versus 59 percent).

Demographic data show some clear differences between ICM and non-participants:

- 71 percent of FFS ICM participants were 45 years of age or older compared to 34 percent of FFS non-participants.
- Native Americans made up 33 percent of FFS ICM participants but only 6 percent of FFS non-participants.
- About 7 percent of FFS ICM participants were African American, compared to 25 percent of FFS non-participants.

Fee-for-Service | Received DASA Services in Year Prior to Entry

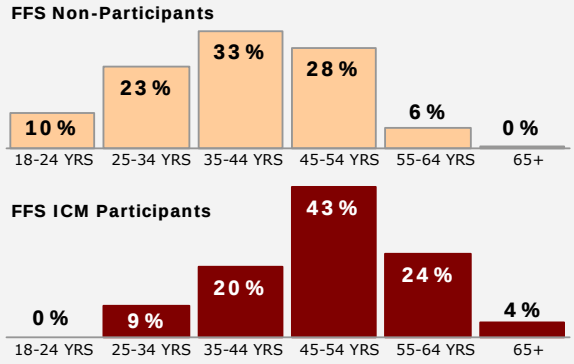
Services administered by DSHS Division of Alcohol and Substance Abuse	FFS Non-Participants *n = 3,952*	FFS ICM Participants *n = 54*
Any DASA Service*	**73.7 %**	**77.8 %**
Any Alcohol or Drug Treatment*	**45.9 %**	**48.2 %**
Outpatient Treatment	25.3%	29.6%
Residential Treatment	22.9%	37.0%
Opiate Substitution Treatment	11.4%	0.0%
Detoxification	**21.6 %**	**59.3 %**
Assessment	**59.2 %**	**42.6 %**

*Fee-for-service patients may receive more than one type of service; thus, subcategories will not sum to the overall percentages shown for "Any Alcohol or Drug Treatment" or "Any DASA Service."

DEMOGRAPHICS

KING COUNTY | Fee-for-Service

AGE DISTRIBUTION



	FFS Non-Participants *n = 3,952*	FFS ICM Participants *n = 54*
RACE | ETHNICITY		
White	59.5%	53.7%
Black	24.7%	7.4%
Native American	6.3%	33.3%
Hispanic	6.2%	5.6%
Asian|Pacific Islander	2.0%	0.0%
Other|Unknown	1.3%	0.0%
GENDER		
Male	67.0%	90.7%
Female	33.0%	9.3%

Medical Eligibility in Year Prior to Entry

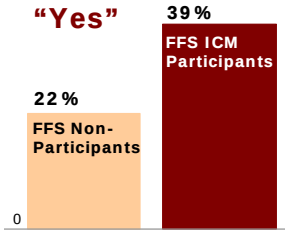
Fee-for-service (FFS) ICM participants averaged 8.6 months of medical eligibility in the year prior to program entry, compared to only 7.4 months for FFS non-participants. In most months FFS ICM participants were covered under the Medicaid program for patients with disabilities.

Average months of medical eligibility

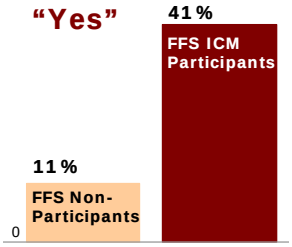
	FFS Non-Participants *n = 3,952*	FFS ICM Participants *n = 54*
Any DSHS Medical Coverage	**7.43**	**8.64**
Medicaid Disabled	4.26	6.17
ADATSA	1.35	0.96
GA-U	1.25	0.74
Medicaid Aged	0.04	0.44
Other Medicaid	0.38	0.00
Other	0.15	0.33

DSHS-paid Prescription Medications in Year Prior to Entry

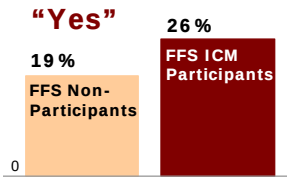
Received prescription medication for heart disease?



Received prescription medication for seizure disorder?



Received prescription medication for psychotic illness/bipolar disorder?



Data from DSHS-paid prescription medication records point to clear differences between FFS ICM participants and FFS non-participants. Differences in prescribed medications suggests that FFS ICM participants are more likely to have several serious medical conditions and mental health conditions, including:

- **Heart Disease:** FFS ICM participants were about twice as likely to have been prescribed medications for heart disease compared to FFS non-participants (39 percent versus 22 percent).
- **Seizure disorder:** FFS ICM participants were nearly four times as likely as FFS non-participants to have been prescribed medications for a seizure disorder (41 percent versus 11 percent).
- **Psychotic/Bipolar:** 26 percent of FFS ICM participants received a prescription for a psychotic illness or bipolar disorder, compared to 19 percent of FFS non-participants.

Major conditions

	FFS Non-Participants *n = 3,952*	FFS ICM Participants *n = 54*
Depression|Anxiety	31.3%	42.6%
Cardiac	21.1%	38.9%
Seizure Disorders	10.6%	40.7%
Pain	32.3%	33.3%
Psychotic Illness|Bipolar	18.9%	25.9%

Medicaid Management Information System (MMIS) Claims: Mental Illness Diagnoses in Year Prior to Entry

Diagnosis data show that FFS ICM participants were more likely to have a diagnosed mental illness compared to FFS non-participants (37 percent versus 33 percent).

A diagnosis of mental illness appeared on a medical claim received by DSHS	FFS Non-Participants *n = 3,952*		FFS ICM Participants *n = 54*	
Any Mental Illness	**32.7%**		**37.0%**	
Schizophrenia	7.4%	13.2%	5.5%	9.2%
Mania/Bipolar	5.8%		3.7%	
Depression/Personality	19.5%		27.8%	

DSHS Mental Health Division Services in Year Prior to Entry

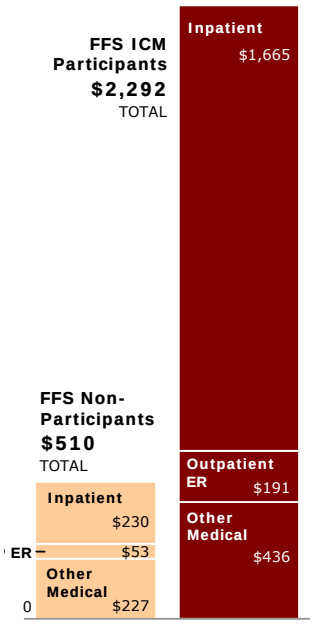
Over one-third of both groups received publicly funded mental health services in the year prior to entry. Overall, FFS ICM participants were more likely to have received mental health services (48 percent versus 39 percent) and more likely to have received services in a community inpatient hospital (25.9 percent versus 6.5 percent).

Services administered by DSHS Mental Health Division	FFS Non-Participants *n = 3,952*	FFS ICM Participants *n = 54*
Any MHD Service*	**39.2%**	**48.1%**
Community Services	38.3%	42.6%
Community Inpatient	6.5%	25.9%
State Hospital	0.9%	1.9%

*Patients may receive more than one type of service; thus, subcategories will not sum to the overall percentages for "Any MHD Service."

Medical Assistance Costs in Year Prior to Entry

ICM participants have higher medical costs



On average, FFS ICM participants had publicly funded per-person per-month medical costs of $2,292, compared to $510 for FFS non-participants. In addition, FFS ICM participants had higher averages on each component of the overall costs:

- The largest difference in costs between FFS ICM participants and FFS non-participants was for inpatient expenses. FFS ICM participants averaged $1,665 per month compared to just $230 for FFS non-participants.
- FFS ICM participants averaged just over $191 per month in outpatient emergency room costs, compared to $53 for FFS non-participants.
- Other medical costs, including medications, outpatient services and medical equipment, averaged $436 for FFS ICM participants and $227 for FFS non-participants.

Per member per month expenditures	FFS Non-Participants *n = 3,592*	FFS ICM Participants *n = 54*
Total Medical Assistance	**$510**	**$2,292**
Inpatient	$230	$1,665
Outpatient ER	$53	$191

Summary Remarks

This report focused on the patients in the King County Intensive Case Management project and compared them with other patients receiving publicly funded alcohol/drug treatment in the county. As expected, the data document clear differences between the groups which indicates that the King County pilot is successfully targeting high risk patients:

- ICM participants have **extremely high medical costs** compared to other patients receiving alcohol/drug treatment.
- ICM participants are **more likely to have been recently arrested**.
- ICM participants were much more likely to have been detoxed during the baseline period prior to entering the ICM program.
- ICM participants were more **likely than non-participants to have been hospitalized in a community psychiatric facility** during the baseline period prior to entering the ICM program.

This report was designed with the limited goal of examining how ICM participants differ from non-participants to assess whether the pilot project is reaching its target population. A future report will examine outcomes associated with the receipt of ICM services, including medical and mental health service utilization and criminal justice involvement in the year following program entry.

TECHNICAL NOTES

This report examines the characteristics of patients who received a DASA-funded Intensive Case Management services. The analyses presented in this report used data from the following sources:

- The Research and Data Analysis Division Client Services Database provided patient demographics and a common identifier for linking patient information from multiple data sources. Mental Health Division service data were also obtained through the Client Services Database.
- DASA's TARGET data system provided information on ICM, alcohol/drug treatment, detoxification, and assessment services.
- Medical claims from the Medicaid Management Information System provided: diagnoses of chronic physical conditions and mental illness; information from pharmacy claims; and medical service cost and utilization data. Claims-based reimbursement amounts for acute medical inpatient admissions at hospitals participating in the Certified Public Expenditure (CPE) program were adjusted to reflect the full cost of the inpatient stay.
- OFM Eligibility data provided information on patients' medical coverage.
- Arrest data from the Washington State Patrol (WSP) identified patients who had been arrested. Local law enforcement agencies are generally required to report only felony and gross misdemeanor offenses into the WSP arrest database. This report somewhat understates the full volume of arrest events in the population because our data exclude arrests for an unknown number of misdemeanor offenses that are not required to be reported into this database.

Mental illnesses were identified using the psychiatric diagnosis categories from the Chronic Illness and Disability Payment System (CDPS). Pharmacy claims were classified using the drug classes from the Medicaid-Rx pharmacy-based risk adjustment tool.

APPENDIX A

Diagnoses of King County ICM Participants Compared to Non-Participants

	SAMPLE DIAGNOSES	FFS ICM *n=54*	FFS Non-ICM *n=3,852*
BY CDPS DISEASE GROUP			
Cancer, high	Lung cancer, ovarian cancer, secondary malignant neoplasms	1.9%	0.3%
Cancer, medium	Mouth, breast or brain cancer, malignant melanoma	0.0%	0.4%
Cancer, low	Colon, cervical, or prostate cancer, carcinomas in situ	0.0%	0.4%
Cardiovascular, very high	Heart transplant status/complications	1.9%	0.4%
Cardiovascular, medium	Congestive heart failure, cardiomyopathy	11.1%	2.1%
Cardiovascular, low	Endocardial disease, myocardial infarction, angina	20.4%	6.3%
Cardiovascular, extra low	Hypertension	13.0%	9.4%
Cerebrovascular, low	Intracerebral hemorrhage, precerebral occlusion	16.7%	1.5%
CNS, high	Quadriplegia, amyotrophic lateral sclerosis	0.0%	0.1%
CNS, medium	Paraplegia, muscular dystrophy, multiple sclerosis	3.7%	0.5%
CNS, low	Epilepsy, Parkinson's disease, cerebral palsy, migrane	31.5%	11.2%
DD, medium	Severe or profound mental retardation	0.0%	0.0%
DD, low	Mild or moderate mental retardation, Down's syndrome	0.0%	0.2%
Diabetes, type 1 high	Type 1 diabetes with renal manifestations/coma	0.0%	0.1%
Diabetes, type 1 medium	Type 1 diabetes without complications	0.0%	1.2%
Diabetes, type 2 medium	Type 2 or unspecified diabetes with complications	1.9%	0.6%
Diabetes, type 2 low	Type 2 or unspecified diabetes w/out complications	9.3%	3.3%
Eye, low	Retinal detachment, choroidal disorders	0.0%	0.3%
Eye, very low	Cataract, glaucoma, congenital eye anomaly	5.6%	0.6%
Genital, extra low	Uterine and pelvic inflammatory disease, endometriosis	0.0%	1.5%
Gastro, high	Peritonitis, hepatic coma, liver transplant	3.7%	0.5%
Gastro, medium	Regional enteritis and ulcerative colitis, enterostomy	22.2%	3.9%
Gastro, low	Ulcer, hernia, GI hemorrhage, intestinal infectious disease	14.8%	9.1%
Hematological, extra high	Hemophilia	0.0%	0.0%
Hematological, very high	Hemoglobin-S sickle-cell disease	0.0%	0.1%
Hematological, medium	Other hereditary hemolytic anemias, aplastic anemia	5.6%	1.1%
Hematological, low	Other white blood cell disorders, other coagulation defects	13.0%	1.7%
AIDS, high	AIDS, pneumocystis pneumonia, cryptococcosis	3.7%	3.1%
HIV, medium	Asymptomatic HIV infection	0.0%	0.3%
Infectious, high	Staphylococcal or pseudomonas septicemia	0.0%	0.4%
Infectious, medium	Other septicemia, pulmonary or disseminated candida	7.4%	0.7%
Infectious, low	Poliomyelitis, oral candida, herpes zoster	5.6%	2.4%
Metabolic, high	Panhypopituitarism, pituitary dwarfism	13.0%	1.5%
Metabolic, medium	Kwashiorkor, merasmus, and other malnutrition, parathyroid	3.7%	0.7%
Metabolic, very low	Other pituitary disorders, gout	5.6%	2.5%
Psychiatric, high	Schizophrenia	5.6%	7.4%
Psychiatric, medium	Bipolar affective disorder	3.7%	5.8%
Psychiatric, low	Other depression, panic disorder, phobic disorder	27.8%	19.6%
Pulmonary, very high	Cystic fibrosis, lung transplant, tracheostomy status	0.0%	0.0%
Pulmonary, high	Respiratory arrest or failure, primary pulmonary hypertension	7.4%	1.3%
Pulmonary, medium	Other bacterial pneumonias, chronic obstructive asthma	9.3%	1.1%
Pulmonary, low	Viral pneumonias, chronic bronchitis, asthma, COPD	29.6%	13.6%
Renal, very high	Chronic renal failure, kidney transplant status/complications	0.0%	0.3%
Renal, medium	Acute renal failure, chronic nephritis, urinary incontinence	11.1%	2.9%
Renal, low	Kidney infection, kidney stones, hematuria, urethral stricture	3.7%	2.3%
Skeletal, medium	Chronic osteomyelitis, aseptic necrosis of bone	3.7%	0.4%
Skeletal, low	Rheumatoid arthritis, osteomyelitis, systemic lupus	1.9%	2.1%
Skeletal, very low	Osteoporosis, musculoskeletal anomalies	3.7%	4.9%
Skeletal, extra low	Osteoarthrosis, skull fractures, other disc disorders	9.3%	7.1%
Skin, high	Decubitus ulcer	0.0%	0.0%
Skin, low	Other chronic ulcer of skin	9.3%	1.2%
Skin, very low	Cellulitis, burn, lupus erythematosus	27.8%	15.0%
Substance abuse, low	Drug abuse, dependence, or psychosis	27.8%	29.6%
Substance abuse, very low	Alcohol abuse, dependence, or psychosis	57.4%	10.8%

HOW TO INTERPRET THIS TABLE: Chronic disease conditions were identified by applying the Chronic Illness and Disability Payments System (CDPS) to patients' fee-for-service medical claims in FY 2005. Counts are hierarchically unduplicated within the disease group. For example, a patient with diagnoses of schizophrenia and depression will be counted only once in the "Psychiatric, high" category. Thus, percentages can be added within a disease category (e.g., Psychiatric) to produce the unduplicated percentage of clients in that disease category. Clients with diagnoses in multiple categories (e.g., Cardiovascular and Psychiatric) will be counted once in each broad category represented in their medical claims diagnoses. For more information about the CDPS, see Kronick R, Gilmer T, Dreyfus T, et al. "Improving health-based payment for Medicaid beneficiaries: CDPS," *Health Care Fin Rev* 2000; 21:29-64.

APPENDIX B

Drugs Prescribed to King County ICM Participants Compared to Non-Participants

	SUMMARY DRUG DESCRIPTIONS	FFS ICM *n=54*	FFS Non-ICM *n=3,852*
BY MEDICAID-Rx PHARMACY GROUP			
Alcoholism	Disulfiram	1.9%	0.8%
Alzheimers	Tacrine	0.0%	0.1%
Anti-coagulants	Heparins	9.3%	1.2%
Asthma/COPD	Inhaled glucocorticoids, bronchodilators	24.1%	13.5%
Attention Deficit	Methylphenidate, CNS stimulants	0.0%	0.3%
Burns	Silver Sulfadiazine	5.6%	0.2%
Cardiac	Ace inhibitors, beta blockers, nitrates, digitalis, vasodilators	38.9%	22.1%
Cystic Fibrosis	Pancrelipase	0.0%	0.2%
Depression / Anxiety	Antidepressants, antianxiety	42.6%	31.3%
Diabetes	Insulin, sulfonylureas	7.4%	2.8%
EENT	Anti-infectives for EENT related conditions	14.8%	7.6%
ESRD / Renal	Erythropoietin, Calcitriol	0.0%	0.1%
Folate Deficiency	Folic acid	11.1%	1.3%
Gallstones	Ursodiol	0.0%	0.0%
Gastric Acid Disorder	Cimetidine	16.7%	6.9%
Glaucoma	Carbonic anhydrase inhibitors	5.6%	0.3%
Gout	Colchicine, Allopurinol	0.0%	0.3%
Growth Hormone	Growth hormones	0.0%	0.0%
Hemophilia/von Willebrands	Factor IX concentrates	0.0%	0.0%
Hepatitis	Interferon beta	0.0%	0.0%
Herpes	Acyclovir	0.0%	1.6%
HIV	Antiretrovirals	0.0%	0.8%
Hyperlipidemia	Antihyperlipidemics	3.7%	2.8%
Infections, high	Aminogycosides	0.0%	0.1%
Infections, medium	Vancomycin, Fluoroquinolones	14.8%	6.9%
Infections, low	Cephalosporins, Erythromycins	31.5%	30.6%
Inflammatory /Autoimmune	Glucocorticosteroids	11.1%	5.8%
Insomnia	Sedatives, Hypnotics	0.0%	2.1%
Iron Deficiency	Iron	7.4%	2.2%
Irrigating solution	Sodium chloride	0.0%	0.2%
Liver Disease	Lactulose	3.7%	0.6%
Malignancies	Antinoeplastics	0.0%	0.5%
Multiple Sclerosis / Paralysis	Baclofen	0.0%	0.6%
Nausea	Antiemetics	11.1%	8.9%
Neurogenic bladder	Oxybutin	0.0%	0.4%
Osteoperosis / Pagets	Etidronate/calcium regulators	0.0%	0.3%
Pain	Narcotics	33.3%	32.3%
Parkinsons / Tremor	Benztropine, Trihexyphenidyl	1.9%	2.8%
PCP Pneumonia	Pentamidine, Atovaquone	0.0%	0.0%
Psychotic Illness / Bipolar	Antipsychotics, lithium	25.9%	18.9%
Replacement solution	Potassium chloride	11.1%	2.2%
Seizure disorders	Anticonvulsants	40.7%	10.6%
Thyroid Disorder	Thyroid hormones	0.0%	0.4%
Transplant	Immunosuppressive agents	0.0%	0.1%
Tuberculosis	Rifampin	3.7%	0.6%

HOW TO INTERPRET THIS TABLE: Pharmacy groups were identified by applying the Medicaid-Rx system to patients' fee-for-service medical claims in FY 2005. Patients with prescriptions in multiple categories (e.g., Pain and Depression/Anxiety) will be counted in both categories. For more information about the Medicaid-Rx system, see Gilmer T, Kronick R, Fishman P, et al. "The Medicaid Rx Model: Pharmacy-based risk adjustment for public programs," *Med Care* 2001; 39:1188-1202.

Additional copies of this paper may be obtained from: http://www1.dshs.wa.gov/RDA/ or
http://www1.dshs.wa.gov/dasa/ or through the Washington State Alcohol|Drug Clearinghouse by calling
1-800-662-9111 or 206-725-9696 (within Seattle or outside Washington State), by e-mailing clearinghouse@adhl.org,
or by writing to 6535 Fifth Place South, Seattle, Washington 98108-0243.

Research and Data Analysis Division
Report Number 4.63