



## **Report to the Legislature**

# **General Assistance Medical Care Management Project**

Chapter 7, Laws of 2001, E2, Section 209 (19) (uncodified)

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## TABLE OF CONTENTS

	<u>Page</u>
Executive Summary .....	1
Background .....	2
Characteristics of GA-U Clients .....	5
Prevalence of Disease .....	13
Prospective Care Models .....	15
Cost Savings Models.....	17
Conclusion .....	17

### TABLES AND FIGURES

Table 1. Percentage of Clients in the High Cost Group (GA-U) .....	5
Table 2. Costs for Medical, Behavioral Health and Long-Term Care .....	6
Figure 1. GA-U Population by Age and Gender (All Clients) .....	6
Figure 2. GA-U Population by Age and Gender –High Cost .....	7
Figure 3. Death Rates for GA-U clients.....	7
Figure 4. Total Expenditures by DSHS Programs, GA-U Clients.....	8
Figure 5. Multiple Program Use – All GA-U Clients .....	9
Figure 6. Multiple Program Use – High Cost GA-U Clients.....	10
Figure 7. Type of Service – All GA-U Clients .....	11
Table 3. GA-U Disease Prevalence Rates.....	13

### APPENDICES

- A. Expenditures FY2001- Services provided by Program and Category
- B. Expenditures FY2001– by Age, Gender, Race/Ethnicity, and Mortality
- C. Expenditures FY2001 – by County
- D. Cumulative Medicaid Expenditures in FY 2001 by Primary Diagnosis
- E. Cumulative Expenditures by Primary Diagnosis – Detail
- F. Diagnosis Groupings based on All ICD-9 Codes

## EXECUTIVE SUMMARY

For the Department of Social and Health Services – Medical Assistance Program, the General Fund State Appropriation is subject to certain conditions and limitations. Chapter 7, Laws of 2001, E2, Section 209 (19) (uncodified) directs the Medical Assistance Administration (MAA) to design and initiate a medical care management project serving General Assistance-Unemployable (GA-U)<sup>1</sup> clients in two counties, one in eastern Washington and one in western Washington. This project must determine a model of care, relying on existing resources to increase integration of services across DSHS, particularly between medical and mental health services. This project requires MAA to consult with the Mental Health Division, migrant and community health centers, and any other managed care provider that has the capacity to offer coordinated care.

Through the summer, a work-team comprised of representatives from MAA, the Mental Health Division (MHD), Research and Data Analysis (RDA) and the Economic Services Administration (ESA) met to consider relevant provider and utilization data and to target potential counties for pilot programs. Research into prospective models and partners for the project, coupled with findings from an extensive review of utilization and demographics (summarized below) form the basis for our plan to address the needs of the GA-U population.

### **DSHS plans to implement care coordination for GA-U clients by July 2003:**

1. We will release a Request For Proposals (RFP) during the fall of 2002 for the procurement of comprehensive and coordinated services designed to meet the specific needs and challenges of the GA-U population.
2. Two or more vendors will be selected by January 2003 to serve Western and Eastern Washington counties, tailoring programs to the greatest needs.
3. Except with respect to the Eastern/Western division, we recommend that county boundaries be less important than the ability to network providers and enhance both accessibility and continuity of care.
4. The approaches that we will endorse will support integration of medical case management and linkage to mental health, chemical dependency and economic services. It is highly desirable that the proposed models incorporate creative approaches to comprehensive care and rehabilitation specific to chemical dependency and employability for non-elderly adults.
5. We will require interested vendors to develop key partnerships and to collaborate with community and state agency resources, using available networks and existing infrastructure to create cost efficiencies.

If you would like more information on this project, please contact Alice Lind at (360) 725-1629 or [lindar@dshs.wa.gov](mailto:lindar@dshs.wa.gov). This document is available in alternative formats to accommodate persons with disabilities. Copies of this document can be obtained in alternative formats by calling Maureen Bruneau at (360) 725-1712.

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<sup>1</sup> See Definition of GA-U category of eligibility in the Background Section on Page 2.

## **BACKGROUND**

The Legislature has mandated that within existing resources, the Department of Social and Health Services Medical Assistance Program shall design and initiate a general assistance medical care management project in two counties, one in eastern Washington and one in western Washington. The intent of the legislature is that in designing the project, the department shall consult with the mental health division, migrant and community health centers, and any other managed care provider that has the capacity to offer coordinated medical and mental health care with maximization of care management through a designated provider network. This program will be designed specifically for those in the General Assistance-Unemployable (GA-U) category of eligibility. The GA-U program is a state funded program that provides cash and medical benefits for persons who are physically and/or mentally incapacitated and unemployable for more than 90 days. They are expected to return to work or become eligible for another category of eligibility.

This directive and the planning relevant to it come at a time of significant review of the entire Medicaid Program. Secretary Dennis Braddock has directed his assistant secretaries to find ways to integrate DSHS services for the aged, blind and disabled categories of funding. Additionally, the Economic Services Administration (ESA) has been auditing the General Assistance – Unemployed (GA-U) population case files to determine appropriateness of service planning in order to achieve greater efficiency and cost containment. One goal of this latter objective is to better coordinate care and program planning for individuals who are not eligible for SSI benefits. It is in this broader context that we respond to the legislature with the following summary and proposed plan.

Our work team comprised of representatives from the Mental Health Division, Economic Services Administration, and Research and Data Analysis held conversations with key resources including:

- Representatives from Community Health Plan of Washington (CHPW);
- Representatives of the Washington Association of Community and Migrant Health Centers;
- Selected clinic administrators in Everett and Wenatchee;
- The State of Washington's Labor and Industry Division regarding their "Centers of Excellence" for treating injured workers and facilitating their return to work.

Additionally:

- We noted that our provider data identify a number of non-Federally Qualified Health clinics (FQHC) that are serving large numbers of GA-U clients; and

- Some community and migrant health clinics that currently have federal funding for on-site mental health services or training of medical providers around mental health issues.

Thus, the timing may be opportune for agreements among providers of complementary services to coordinate medical and behavioral health care.

The vision of integration of care for the GA-U population runs parallel to that of the Washington Medicaid Integration Project (WMIP) that Secretary Dennis Braddock initiated as "... a department effort focused on Medicaid high utilizers...where significant efficiencies and savings can be achieved with dramatic improvements in coordination and integration of services between MAA, Aging and Adult Services Administration, and Health and Rehabilitative Services Administration ..."

In August 2002, the WMIP released a Request for Information (RFI) to identify stakeholder interest and explore potential cost savings models. Responses to the WMIP RFI and review of the client services data<sup>2</sup> drawn to support it were highly useful in developing our proposal for the GA-U population.

The GA-U population forms a subset of the larger population of Medicaid clients (defined as any user of DSHS services). Out of the 188,728 clients in FY2001, referenced in the WMIP data, 33,600 were GA-U clients. For data analysis, any client who was eligible for GA-U assistance at any point in FY2001 was included in the GA-U counts, even if that client later became eligible for Medicaid and/or Medicare. Of the 33,600 GA-U clients represented in the data, 14,367 (43 percent) were only in the GA-U program while the remainder at some point during the year became eligible for a different category. General Assistance – Expedited Medicaid Disability (GA-X)<sup>3</sup> clients who were strictly in the GA-X category of eligibility were not included in these numbers. Thus a "snapshot" of any particular month during FY2001 would identify a smaller group (e.g. in July, 2002, there were 7,143 GA-U clients). In future analyses, client eligibility months will be calculated in order to more precisely account for costs associated with the GA-U population.

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<sup>2</sup> Data on number of clients (i.e. users of DSHS services), costs, types of service, diagnostic categories were obtained from MAA's Medicaid Management Information System (MMIS) and Extended Database (EDB). Client level detail on types of services received and associated costs in FY2001 were drawn from the Research and Data Analysis Division's Client Services Data Base (CSDB). Other sources included the linkage of the Office of Financial Services Eligibility database to that of the WMIP; and the Department of Health's vital statistics to the CSDB to identify mortality rates. ICD-9 codes from primary diagnoses were used to establish a list of standard disease categories. Future analyses will include other diagnoses from claims data to create a more complete analysis of illness and co-morbidity.

<sup>3</sup> The GA-X program provides cash and medical benefits to persons who have a disability decision pending with Social Security Administration. Eligible persons receive full scope medical coverage, the same as the Categorically Needy (the federally matched Medicaid programs that provide the broadest scope of medical coverage).

GA-U clients are distinguished by a variety of characteristics and unique challenges. For example, this is a population that is highly mobile and whose status may change as often as monthly as they move into other programs or become ineligible. In FY2001, only 5,853 clients were continuously enrolled for the entire year. As a result their care becomes fragmented and when they do present for care (often at the Emergency Room), their needs are urgent. Other findings are summarized below:

1. Medical Assistance Administration clients served by the General Assistance-Unemployable program require a variety of services, including medical, mental health, long-term care, and chemical dependency services. Costs are driven by several factors including volume of service, costs per client, and type of service. The comparison of a “high cost” group<sup>4</sup> to the GA-U population in general identifies potential sub-groups of this population for further study and targeted interventions. (Analysis to follow).
2. Among this high cost group, an examination of volume and per client costs show that clients using some combination of long-term care, mental health, and medical services are the most costly. It comes as no surprise that inpatient hospitalizations were the most expensive service for the GA-U clients overall. But notably, within the GA-U high cost group, inpatient services represent 43% of all costs. The extent to which these inpatient hospitalizations could be avoided deserves further analysis. Previous studies conducted by Research and Data Analysis (RDA) and Washington State Institute for Public Policy (WSIPP) support that factors contributing to high emergency department and hospitalization rates include the absence of a “medical home”, lack of preventive care and inaccessibility of adequate mental health and substance abuse services.

A recently released study by WSIPP reinforces this: “...timely and effective outpatient health care services, such as physician office visits can often prevent hospitalizations for certain medical conditions.”<sup>5</sup> This study also found the prevalence of chronic disease higher for persons with avoidable hospitalizations.<sup>6</sup> While demographic variables differ slightly in this study compared to our review of the GA-U population, there is overlap among males, particularly as they age, and the prevalence of pulmonary disease, among other interesting findings.

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<sup>4</sup> A high cost group was identified for the broader analysis of the aged blind and disabled clients in the WMIP. All clients were ranked according to their total DSHS expenses in FY2001 and the top 10% of that group was flagged as “high cost”. Of the 33,600 GA-U clients who received services in FY2001, 4.3 percent, or 1,458 clients, fell in this high cost group. (See Table 1.)

<sup>5</sup> Lerch, Steve Ph.D., “Avoidable Hospitalizations Among Medicaid Recipients in Washington State”, WSIPP Document No. 02-08-3401 (URL: <http://www.wsipp.wa.gov>)

<sup>6</sup> Ibid. Avoidable hospitalizations are defined as “...a hospital stay that could have been prevented with adequate outpatient care”.

3. Within the GA-U population our data point to a number of high cost diagnostic categories. Further analysis of this data could help inform models of care and focused interventions. For example, nutritional deficiencies have the highest relative odds of occurring in the high cost group (14.6) although clients with nutritional deficiencies represent only 6.2% of the population. Non-organic psychosis, on the other hand, while having relative odds of 2.6, occurs in 31.9% of the population and “other” Mental Health diagnoses and Substance Abuse in 20%. It should be possible to manage these conditions better within an integrated approach that coordinates medical home, targeted prevention and treatment programs. (See Prevalence of Disease, Table 3 and Appendices D, E, and F).
4. There are a number of resources available throughout the state in both the public and private sectors that already provide care to Washington’s GA-U clients. Potential savings can be generated from developing a system of care that improves the coordination between governmental entities and community resources (e.g. hospitals, providers, migrant and community health centers, schools and non-profits). Additionally, the funding of this population lends itself to creative approaches that are not bound by federal restrictions, allowing the inclusion of preventive or complementary / alternative care not currently covered.
5. Responses to the WMIP RFI identified an array of models, some of which are already in operation throughout the state, and a number of respondents ready and eager to take on the challenges posed in serving the GA-U population. (See Page 15, Prospective Care Models)

## **CHARACTERISTICS OF GA-U CLIENTS**

As stated earlier, we expect respondents to a prospective RFP to incorporate the following demographics and utilization statistics in devising interventions for this population.

In FY 2001, 33,600 clients received medical, behavioral health and long-term care from the Department of Social and Health Services (DSHS) through the state-funded General Assistance-Unemployable (GA-U) program. The total number of clients actually eligible for GA-U benefits was 39,100. Thus, 14 percent of those eligible under GA-U did not actually use medical care, behavioral health services, long-term care or other support services during FY2001.

Of the 33,600 GA-U clients who received services in FY2001, 4.3 percent, or 1,458 clients, fell in the high cost group identified as part of the broader WMIP analysis of aged, blind and disabled clients. The following Tables and Figures

portray sample, demographic, geographic, utilization and cost data important to understanding this population and tailoring programs and interventions.<sup>7</sup>

**Table 1. Percentage of Clients in the High Cost Group by Eligibility Category** *(NOTE: The following population figures are not additive due to overlap.)*<sup>8</sup>

	High cost group	Total Population	High cost group as % of total population
Dual Eligibles <sup>9</sup>	13,418	98,908	13.6%
Medicaid Only	8,220	89,820	9.2%
<b>GA-U</b>	<b>1,458</b>	<b>33,600</b>	<b>4.3%</b>

#### Total Expenditures

The FY2001 expenditures for GA-U clients were obtained for services administered by five DSHS programs: Medical Assistance Administration (MAA), Aging and Adult Services Administration (AASA), Mental Health Division (MHD), Division of Alcohol and Substance Abuse (DASA), and Division of Developmental Disabilities (DDD). The cost for providing services to GA-U clients from these DSHS programs totaled \$265 million. The cost to care for the top 4.3 percent of GA-U clients was \$94 million, or 36 percent of the total expenses for the GA-U clients.

**Table 2. Costs for Medical, Behavioral Health & Long-Term Care & Other Support Services, FY2001**

	All Clients			High Cost Group		
	Clients	Total Paid (millions)	Paid Per Client	Clients	Total Paid (millions)	Paid Per Client
GA-U						
Clients receiving Services	33,600	\$265	\$7,876	1,458	\$94	\$64,258
Eligible Clients not receiving Services	5,500	\$0	\$0			
<b>Total</b>	<b>39,100</b>	<b>\$265</b>	<b>\$6,768</b>			

<sup>7</sup> Table 1 includes data for Dual Eligibles and Medicaid-Only clients as a reference to the proportion of GA-U clients represented in the data. Subsequent Tables do not provide this comparison.

<sup>8</sup> Of the 33,600 GA-U clients in this data, 14,367 (43 percent) were only in the GA-U program while the remainder at some point during the year became eligible for a different category.

<sup>9</sup> Dual Eligible clients are covered by both Medicaid and Medicare

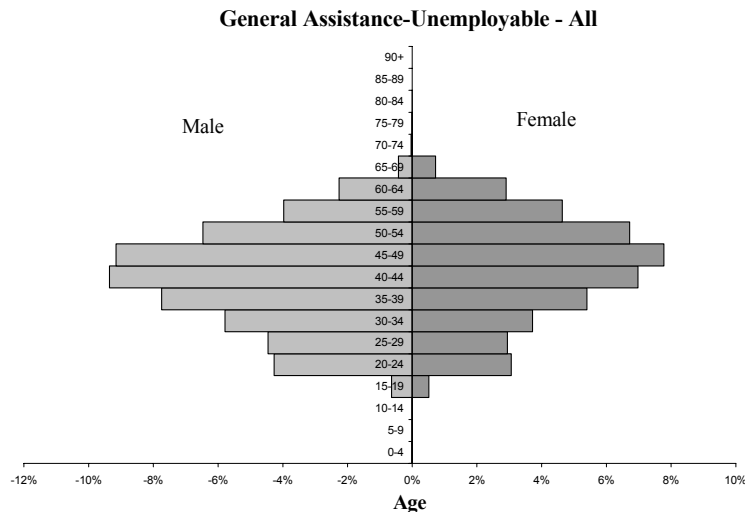


Note: In all subsequent tables and graphs, the term “all clients” refers to those who received services that were recorded either in DSHS’ Medical Management Information System (MMIS), Extended Data Base (EDB), or Client Services Data Base (CSDB).

### Population Pyramids

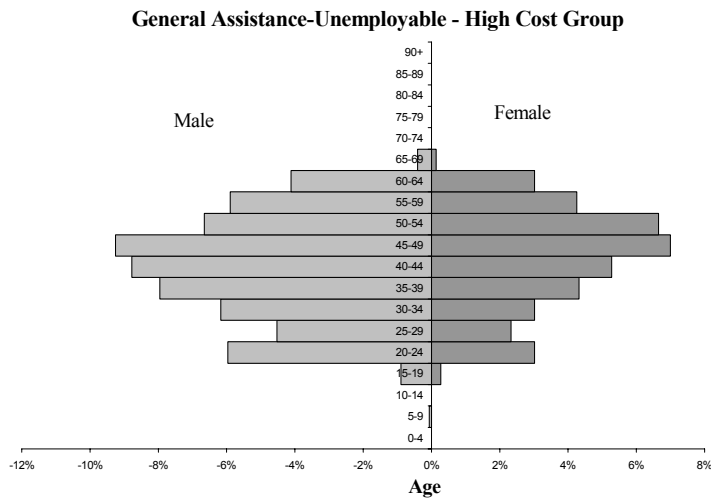
Figures 1 and 2 show the distribution of male and female clients for five-year age categories.

**Figure 1. GA-U Population by Age and Gender – All Clients**



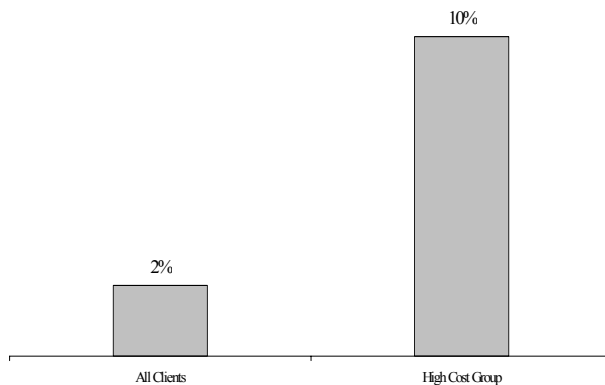
- Most GA-U clients are adults, aged 20-64, with only a few above or below this range
- Largest 5-year age groups are 40-44 and 45-49
- 55% of GA-U clients are men
- Males outnumber females from 20 through 49

**Figure 2. GA-U Population by Age and Gender – High Cost Group**



- Majority (61%) of high cost GA-U clients are men
- Men outnumber women in each 5-year age group
- Slightly over half (53%) are between 18 and 44 years old

**Figure 3. Death Rates for GA-U Clients July 2000 – December 2001**

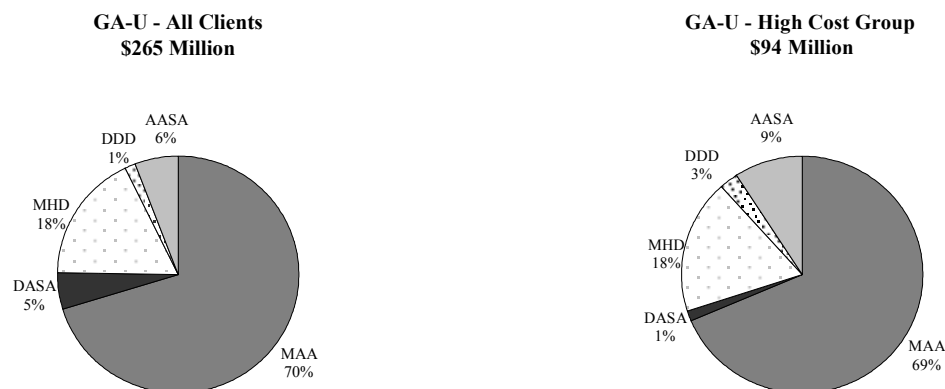


- Deaths were five times more frequent in the high cost group
- Deaths examined by age revealed that 16% of those aged 45-64 in the high cost group died compared to only 3% in that age group out of GA-U clients overall (note: death rates are for 18 months)

## Distribution of Total Expenditures

Pie charts in Figure 4 illustrate the distribution of total expenditures across DSHS programs. Separate charts are presented for the GA-U clients in general and for the high cost group.

**Figure 4. Total Expenditures by DSHS Programs, GA-U Group**

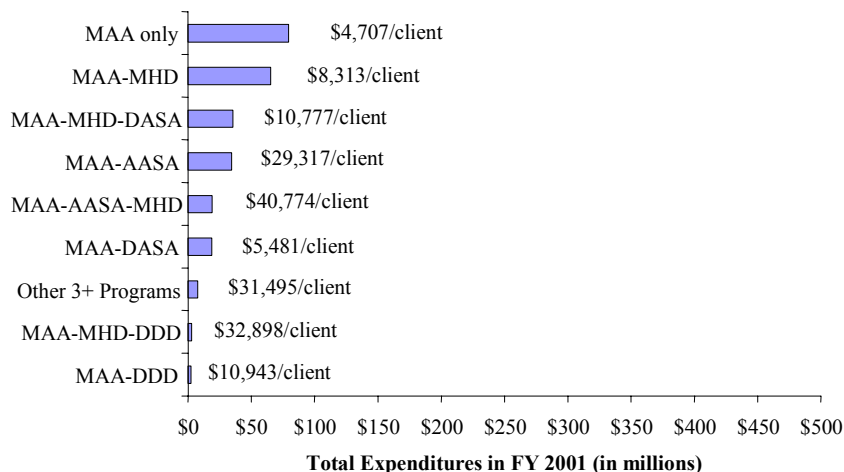


- Distribution of costs by program of all GA-U clients and the high cost group are roughly the same:
  - Most costs are for medical care paid for through MAA programs.
  - Mental health costs comprise the second highest costs.
  - Nursing home and in-home services account for a slightly greater proportion of cost attributable to AASA in the high cost group.
  - Chemical dependency treatment is a bigger share of costs for all GA-U clients than for the GA-U high cost group.

## Multiple Program Use.

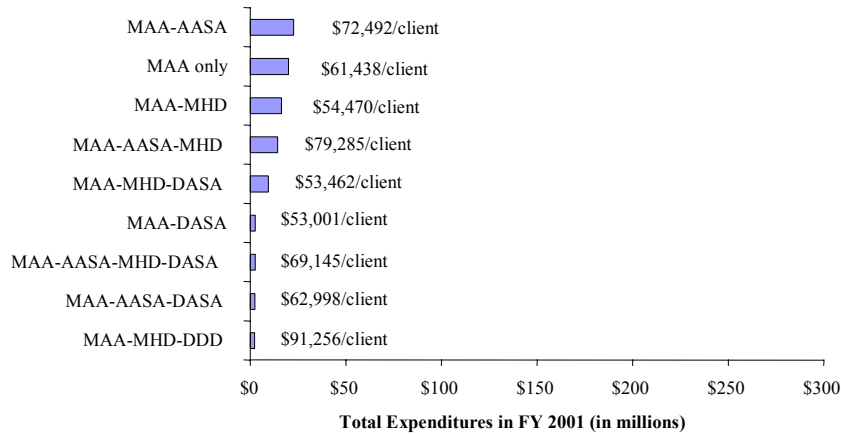
The bar graphs in Figure 5 (all GA-U clients) and Figure 6 (high cost GA-U group) present information about multiple program use. Each graph ranks the program categories according to the total expenditures for clients served by that program or group of programs in FY2001. The top nine most costly program combinations are included with the corresponding average cost per client shown next to each bar. This combined information helps clarify the extent of costs for different combinations of programs.

**Figure 5. Multiple Program Use – All GA-U Clients  
Ranked by Total Expenditures in FY 2001**  
*Multiple program use is ranked by total \$ amount with \$ per client to the right*



- About 17,000 out of 33,600 GA-U clients received only MAA services @ \$4,707 per client, totaling \$79 million based on high volume x low cost/client
- 7,800 MAA-MHD clients cost \$65 million based on \$8,313/client
- 3,300 MAA-MHD-DASA clients cost \$35 million @ \$10,777/client
- Highest per client cost = \$40,774 for 460 clients with MAA-AASA-MHD services for a total of \$19 million

**Figure 6. Multiple Program Use – GA-U High Cost Group**  
**Ranked by Total Expenditures in FY 2001**  
*Multiple program use is ranked by total \$ amount with \$ per client to the right*

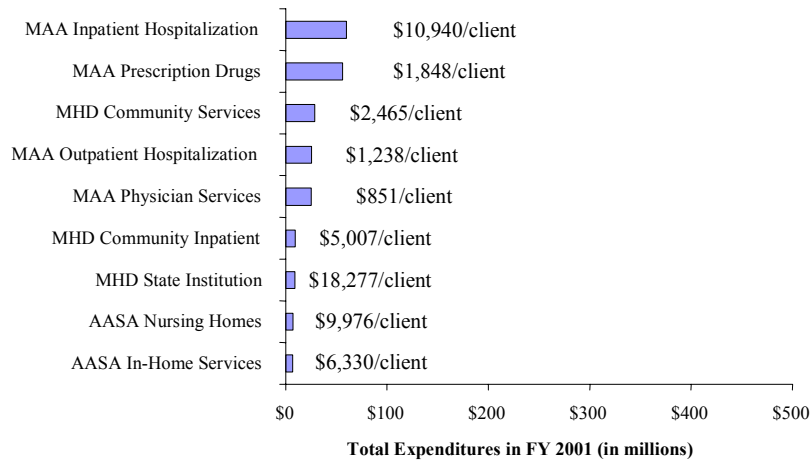


- 79% of the most expensive GA-U clients are served by some combination of three programs: MAA, AASA, and MHD for a total of \$79 million with per client cost ranging from \$54,000 to \$79,000.
- An additional 21% of the high cost clients received care from DASA and one or more other programs for a total of \$17 million.

## Type of Service

Figure 7 shows the nine most costly types of service ranked by total expenditures in FY2001 for all GA-U clients. The average cost per client per year, based on the total number of clients who used that particular service category in FY2001, is shown next to each bar to illustrate the client costs for each type of service.

**Figure 7. Type of Service – All GA-U Clients Ranked by Total Expenditures in FY 2001**



## PREVALENCE OF DISEASE

The prevalence of many different types of diseases is much greater among high cost GA-U clients than the rest of the GA-U population, as shown in Table 3 (following page). For instance, 32 percent of the high cost group had a primary diagnosis of non-organic psychosis compared to only 15 percent of the rest of the GA-U clients.<sup>10</sup>

Furthermore, using an odds ratio to compare the prevalence of disease in the two groups, we found that high cost clients have almost 15 times greater odds of having nutritional deficiencies than the remaining GA-U clients.<sup>11</sup> The next highest odds ratios for GA-U clients included such diseases as nephritis, pulmonary circulation disease, immune disorders, leukemia, and bleeding disorders.

The diseases shown in Table 3 are diagnoses for which the high cost group has an odds ratio of 2.0 or more. Thus, in 38 disease categories the high cost group had a 2 to 1 chance or greater of having a given disease compared to the rest of the GA-U clients. Furthermore, high cost GA-U clients have an odds ratio of 1.25 or higher for 58 out of 66 disease categories (from the standard grouping based on ICD-9 codes).

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<sup>10</sup> ICD-9 codes from primary diagnoses were used to establish a list of standard disease categories. Future analyses will include other diagnoses listed on the claims data to create a more complete analysis of illness and co-morbidity.

<sup>11</sup> The odds ratio compares how often a chronic condition like nephritis, bleeding disorder, or organic psychosis is present in the high cost group to how often it is present in the remainder of the client's in this eligibility category. An odds ratio equal to 1 with respect to a particular disease would mean that the high cost clients and the remaining clients in the group have the same 'odds' of having the disease (ratio of presence to absence of the disease). An odds ratio greater than 1 would mean that clients in the high cost group have greater odds of having a given disease than remaining clients in the eligibility category.

**Table 3. General Assistance-Unemployable (GA-U) Clients  
Disease Prevalence Rates  
Ranked by Odds Ratios: Disease in High Cost Group vs. Other GA-U Clients**

Primary Diagnosis	Prevalence Rates		Odds Ratio	Primary Diagnosis	Prevalence Rates		Odds Ratio
	High Cost	Other GA-U Clients			High Cost	Other GA-U Clients	
<b>Total</b>	<b>1,456</b>	<b>32,100</b>	<b>--</b>				
Nutritional Deficiencies	6.2%	0.4%	14.6	Neoplasm of Uncertain Behavior	7.8%	2.2%	3.8
Nephritis, Nephrotic Syndrome, Nephrosis	10.2%	0.9%	12.9	Breast Cancer	1.9%	0.5%	3.8
Disease of the Pulmonary Circulation	1.8%	0.1%	12.4	Poisoning by Non-medicinal Substances	3.0%	0.8%	3.7
Immune Disorders	5.3%	0.5%	11.6	Infectious, General	24.6%	8.3%	3.6
Leukemia	1.6%	0.1%	11.4	Other Gastro-Intestinal Disorders	42.2%	17.0%	3.6
Bleeding Disorders	5.4%	0.5%	10.6	Other Upper GU Disorders	24.5%	9.2%	3.2
Congenital Cardiovascular Anomalies	2.1%	0.2%	9.5	Hepatitis and Liver Diseases	10.8%	3.7%	3.1
Gastro-intestinal Malignancies	3.5%	0.4%	8.9	HIV/AIDS	3.6%	1.2%	3.0
Cerebrovascular Disease	11.6%	1.6%	8.2	Epilepsy	4.6%	1.6%	3.0
Other Malignancies	10.0%	1.7%	6.6	Fractures	18.4%	7.6%	2.7
Other Metabolic Disorders	13.8%	2.4%	6.5	Chronic Obstructive Pulmonary Disease	16.1%	6.7%	2.7
Other Central Nervous System Diseases	15.2%	2.7%	6.5	Non-organic Psychosis	31.9%	15.0%	2.6
Organic Psychosis and Dementia (non-alc)	3.8%	0.6%	6.4	Alcoholic/Drug Psychosis	13.1%	5.4%	2.6
Other Hematologic Disorders	13.7%	2.5%	6.3	Diabetes	16.6%	8.0%	2.3
Congestive Heart Failure	11.5%	2.0%	6.3	Other Mental Health Disorders	20.1%	10.1%	2.2
Perinatal Problems	1.3%	0.2%	6.2	Connective Tissue Disorders, Polymyalgia	1.2%	0.6%	2.1
Eating Disorders	9.5%	1.7%	6.2	Infections with Public Health Implications	5.0%	2.5%	2.1
Other Heart Disease	24.3%	5.0%	6.2	Superficial Injuries, Contusions, Abrasions	14.2%	7.5%	2.0
Respiratory Malignancies	3.5%	0.6%	6.2	Upper Gastro-Intestinal Disorders	14.4%	7.8%	2.0
Childhood Neurologic Problems	0.7%	0.1%	6.2				
Other Pulmonary Disease	61.4%	21.4%	5.8				
Peripheral Vascular Disease	6.9%	1.3%	5.5				
Poisoning by Medicinal & Biological Subst.	9.5%	2.2%	4.8				
Ischemic Heart Disease	11.7%	3.1%	4.2				
Hereditary Anemia	0.2%	0.0%	4.1				



## **PROSPECTIVE MODELS FOR GA-U INTEGRATED MEDICAL CARE MANAGEMENT**

Respondents to the Washington Medicaid Integration Project (WMIP) Request for Information (RFI) ranged from national managed care organizations to small local, very specific projects and a few letters with political / advocacy messages. Key elements of these responses include:

- ❖ Aggressive Outreach and Case Management;
- ❖ Coordination and Case Review;
- ❖ Community based interdisciplinary teams;
- ❖ Local networks of providers and specialists;
- ❖ Collaborative efforts among mental health clinics and senior services;
- ❖ Integrated long-term care and medical management approaches;
- ❖ Management of pharmaceuticals and emergency room, hospital and nursing home by way of utilization review;
- ❖ Primary Care Case Management (PCCM) in a medical model.

The following abstracts highlight approaches that appear particularly relevant to GA-U clients and come from respondents who indicated their interest in working with this population.

### **Health Plans and Systems:**

- Community Health Plan of Washington (CHPW) and the Washington Association of Community and Migrant Health Centers envision enhancing partnerships with community based providers and local agencies. They intend to use a combination of exceptional needs care coordinators and behavioral health consultants as onsite staff at community health centers to collaborate between primary care and ancillary service providers.
- Molina Health Care offered a limited managed care model identifying a pilot site in one county on each side of the state.
- Harborview Medical Center's vision is consistent with their commitment to serve vulnerable populations describing an "aggressive case management and outreach, model emphasizing coordination, linkage and case review. They already work within a system coordination model and regularly participate in inter-agency case planning and review.
- Pierce County Human Services is identifying partners in the medical plan, mental health provider and long-term care provider systems. They have ongoing relationships with urgent care providers and propose developing a PCCM system to establish medical homes for clients without a primary care provider. Their close relationship with the Pierce County Regional Support Network (RSN) will ensure crisis triage and assessment for mental health clients.

**Community Mental Health Collaborations** formed to submit partnership models, which would create networks of coordinated, and accessible mental health services linked to medical care management:

- The King County Project is the most complex of these, describing a “governing board” accountable for access, utilization, quality and financial performance, and an Administrative Services Organization as a managing entity for network development, claims, utilization review, quality improvement and enrollee services. They emphasize co-existing medical services and community support systems, primary care case management and “Exceptional Needs Case Coordinators”.
- Valley Cities Counseling and Consultation describes collaboration with community health centers and primary care practitioners (PCP’s) in a community services model, including home visits, stabilization and interdisciplinary service teams.
- North Sound RSN’s proposal is similar and includes co-location of primary and mental health services over a five county area. Additionally,
- Catholic Community Services of Snohomish discusses a continuum of care model incorporating the county health district, chemical dependency and long-term care within a case management structure.

**Networks and health care organizing bodies** with experience in coordinating systems of care among different health care organizations and local provider communities:

- CHOICE Regional Health Network – serving Grays Harbor, Lewis, Mason, Thurston and North Pacific counties, and
- Health Improvement Partnership (HIP) in Spokane both suggest structures to support coordinated care. These would provide linkage and administrative services to enable centralized approaches with multiple contractors. They include in their proposals customized care and disease management services that build on and enhance local capacities.

**Special population advocates and providers:**

- The Lummi Nation Health System building on their existing PCCM model;
- Kin On Community Health Care endorsing chronic care case management for medically complex Chinese and Asian clients;
- Eastside Adult Day Services, utilizing a PACE model; and
- ElderHealth Northwest providing managed long-term care with integrated neighborhood network components and pharmacy management.

Support and advice for integrated models was received from a variety of sources citing experience with interagency approaches and blended funding (King County Department of Community and Human Services), community mental health and non-profit agencies, (Washington Community Mental Health Council), and Medalia, a medical provider group.

## **COST SAVINGS MODELS**

Responses to the WMIP RFI proposed a range of payment methods from full or shared risk to medical models entailing fee-for-service with additional per member per month funding for care coordination [e.g. Primary Care Case Management (PCCM)]. Respondents were generally willing to implement such programs with or without savings incentives. Most emphasized that savings would arise from management of high cost members through care coordination, disease state and pharmacy management and behavioral health consulting. Cost savings were most frequently tied to reduction of emergency room use, and the avoidance of preventable hospitalizations. The use of Day Homes for the elderly was also suggested as an alternative to institutionalization. Specific cost models varied by type of organization and their capacity to take on risk. It is unlikely with the size of this pilot that vendors would opt for capitated arrangements.

## **CONCLUSION**

Over the next nine months, DSHS will:

- Release a Request for Proposal (RFP) for integrated health care services designed to meet the specific needs and challenges of the GA-U clients.
- Select two or more vendors by January 2003 to serve western and eastern Washington counties based on the most responsive program designs and capabilities that are not necessarily restricted by county boundaries. These designs will enhance both accessibility and continuity of care.
- Endorse approaches that support integration of medical care management with linkage to economic services, mental health, long-term care, chemical dependency treatment and appropriate local support services. We intend that the vendor(s) will collaborate with local providers, government agencies and community health clinics to create cost efficiencies by building on existing networks, programs and infrastructures.
- Require that vendors be responsive to the demographics and health issues of GA-U clients. We expect them to work closely with primary care practitioners and local health departments to target relevant health issues for outreach, prevention and education.
- Encourage creative approaches to comprehensive care and rehabilitation with specific emphasis on chemical dependency recovery and improving employability for non-elderly adults. Pilots that incorporate complementary and alternative approaches will be considered.

*Appendix A. General Assistance-Unemployable (GA-U) Clients  
Services Provided by Department of Social and Health Services in FY2001  
by Program and Category of Service*

Program and Category of Service <sup>1</sup>	GA-U			In High Cost Group		
	Clients	Total Paid	Paid per Person	Clients	Total Paid	Paid per Person
<b>General Assistance-Unemployable Clients</b>	<b>33,600</b>	<b>\$264,620,731</b>	<b>\$7,876</b>	<b>1,458</b>	<b>\$93,687,751</b>	<b>\$64,258</b>
<b>Medical Assistance Administration</b>	<b>33,556</b>	<b>\$185,609,105</b>	<b>\$5,531</b>	<b>1,456</b>	<b>\$64,402,680</b>	<b>\$44,233</b>
Inpatient Hospitalization	5,484	\$59,994,330	\$10,940	1,006	\$39,071,908	\$38,839
Outpatient Hospitalization	20,526	\$25,408,474	\$1,238	1,247	\$6,695,643	\$5,369
Emergency Room	6,044	\$3,322,389	\$550	544	\$630,653	\$1,159
Prescription Drugs	30,197	\$55,815,825	\$1,848	1,405	\$8,275,956	\$5,890
Physician - Inpatient Hospital	6,036	\$7,590,535	\$1,258	1,058	\$3,396,918	\$3,211
Physician - Outpatient Hospital	17,150	\$4,797,781	\$280	1,111	\$813,910	\$733
Physician - Emergency Room	5,237	\$695,383	\$133	481	\$137,520	\$286
Physician - Nursing Home	480	\$93,010	\$194	258	\$63,852	\$247
Physician - Other places	25,813	\$11,884,270	\$460	1,232	\$2,076,736	\$1,686
Other Provider	19,187	\$5,628,166	\$293	1,058	\$531,655	\$503
Durable Medical Equipment	4,766	\$2,353,490	\$494	670	\$935,688	\$1,397
Transportation	4,416	\$1,312,929	\$297	737	\$415,670	\$564
All Other	15,060	\$6,712,524	\$446	872	\$1,356,568	\$1,556
<b>Aging and Adult Services</b>	<b>1,852</b>	<b>\$15,745,983</b>	<b>\$8,502</b>	<b>570</b>	<b>\$8,544,118</b>	<b>\$14,990</b>
Nursing Homes	714	\$7,123,075	\$9,976	332	\$5,414,946	\$16,310
Adult Family Homes	105	\$815,858	\$7,770	41	\$359,340	\$8,764
Assisted Living	51	\$392,272	\$7,692	21	\$172,586	\$8,218
Adult Residential	71	\$480,619	\$6,769	28	\$150,247	\$5,366
In-Home Services	1,048	\$6,634,038	\$6,330	252	\$2,311,827	\$9,174
Miscellaneous	191	\$300,121	\$1,571	61	\$135,171	\$2,216
<b>Mental Health Division</b>	<b>11,811</b>	<b>\$46,345,429</b>	<b>\$3,924</b>	<b>717</b>	<b>\$17,147,829</b>	<b>\$23,916</b>
State Institution	477	\$8,718,356	\$18,277	162	\$6,387,459	\$39,429
Community Inpatient	1,823	\$9,127,102	\$5,007	297	\$3,386,115	\$11,401
Community Services	11,562	\$28,499,971	\$2,465	675	\$7,374,255	\$10,925
<b>Division of Alcohol and Substance Abuse</b>	<b>6,936</b>	<b>\$13,270,616</b>	<b>\$1,913</b>	<b>301</b>	<b>\$1,121,109</b>	<b>\$3,725</b>
Residential Treatment	1,898	\$6,272,633	\$3,305	95	\$651,338	\$6,856
Outpatient Treatment	3,541	\$3,394,547	\$959	142	\$158,068	\$1,113
Opiate Substitution Treatment	604	\$782,021	\$1,295	27	\$31,830	\$1,179
Detoxification	1,548	\$1,661,276	\$1,073	108	\$228,285	\$2,114
Outpatient Assessments	1,986	\$345,616	\$174	120	\$24,444	\$204
ADATSA Assessments	3,650	\$626,552	\$172	123	\$20,415	\$166
Miscellaneous	1,406	\$187,971	\$134	50	\$6,729	\$135
<b>Division of Developmental Disabilities</b>	<b>322</b>	<b>\$3,649,599</b>	<b>\$11,334</b>	<b>41</b>	<b>\$2,472,015</b>	<b>\$60,293</b>
Residential Habilitation Center	2	\$94,448	\$47,224	2	\$94,448	\$47,224
Community Residential	63	\$2,183,052	\$34,652	28	\$1,986,528	\$70,947
Personal Care	76	\$572,045	\$7,527	4	\$31,027	\$7,757
County Services <sup>2</sup>	79	\$318,729	\$4,035	22	\$111,161	\$5,053
Case Management	300	\$222,946	\$743	40	\$40,674	\$1,017
Professional Support Services	68	\$82,585	\$1,214	24	\$60,638	\$2,527
Family Support Services	14	\$11,206	\$800	2	\$1,652	\$826
Voluntary Placement	3	\$164,586	\$54,862	1	\$145,887	\$145,887

**Note: Information contained in these appendices will be included in the RFP planned for release this fall.**

*Appendix B. General Assistance-Unemployable (GA-U) Clients  
Medicaid and Selected DSHS Expenditures in FY 2001  
by Age, Gender, Race/Ethnicity, and Mortality*

	GA-U				In High Cost Group			
	Patients	Percent of Patients	Total Paid	Paid per Patient	Patients	Percent of Patients	Total Paid	Paid per Patient
<b>Total</b>	33,600	100%	\$264,620,731	\$7,876	1,458	100%	\$93,687,751	\$64,258
<b>Age</b>								
0-17	10	0.0%	\$159,335	\$15,934	1	0.1%	\$98,522	\$98,522
18-44	18,434	54.9%	\$143,375,259	\$7,778	766	52.5%	\$50,740,551	\$66,241
45-64	14,751	43.9%	\$118,890,188	\$8,060	683	46.8%	\$42,324,464	\$61,968
65-84	405	1.2%	\$2,195,949	\$5,422	8	0.5%	\$524,214	\$65,527
<b>Gender</b>								
Female	15,246	45.4%	\$118,627,308	\$7,781	573	39.3%	\$36,262,642	\$63,286
Male	18,354	54.6%	\$145,993,424	\$7,954	885	60.7%	\$57,425,109	\$64,887
<b>Race/Ethnicity</b>								
American Indian/Alaska Native	1,334	4.0%	\$12,294,926	\$9,217	79	5.4%	\$5,138,364	\$65,043
Asian/Pacific Islander	1,257	3.7%	\$9,742,309	\$7,750	59	4.0%	\$3,670,554	\$62,213
Black/African American	3,270	9.7%	\$24,338,964	\$7,443	146	10.0%	\$9,184,091	\$62,905
Hispanic	885	2.6%	\$6,675,916	\$7,543	39	2.7%	\$2,700,624	\$69,247
White	25,998	77.4%	\$205,941,119	\$7,921	1,108	76.0%	\$71,186,473	\$64,248
Other Race	4	0.0%	\$3,401	\$850	0	0.0%	\$0	\$0
Race Unknown or Unreported	852	2.5%	\$5,624,096	\$6,601	27	1.9%	\$1,807,646	\$66,950
<b>Mortality (by 12/31/01)</b>								
Living	32,824	97.7%	\$247,139,393	\$7,529	1,307	89.6%	\$81,996,571	\$62,736
Deceased	776	2.3%	\$17,481,338	\$22,527	151	10.4%	\$11,691,180	\$77,425

*Appendix C. General Assistance-Unemployable (GA-U) Clients  
Medicaid and Selected DSHS Expenditures in FY 2001  
by County*

	GA-U				In High Cost Group			
	Patients	Percent of Patients	Total Paid	Paid per Patient	Patients	Percent of Patients	Total Paid	Paid per Patient
<b>Total</b>	33,600	100.0%	\$264,620,731	\$7,876	1,458	100.0%	\$93,687,751	\$64,258
<b>County</b>								
Adams	44	0.1%	\$202,313	\$4,598	1	0.1%	\$33,099	\$33,099
Asotin	128	0.4%	\$934,998	\$7,305	7	0.5%	\$388,908	\$55,558
Benton	528	1.6%	\$3,933,565	\$7,450	15	1.0%	\$1,036,917	\$69,128
Chelan	584	1.7%	\$3,840,651	\$6,576	16	1.1%	\$913,319	\$57,082
Clallam	684	2.0%	\$4,841,333	\$7,078	25	1.7%	\$1,465,216	\$58,609
Clark	1,576	4.7%	\$13,645,072	\$8,658	91	6.2%	\$5,802,046	\$63,759
Columbia	11	0.0%	\$112,565	\$10,233	1	0.1%	\$77,946	\$77,946
Cowlitz	698	2.1%	\$4,469,530	\$6,403	16	1.1%	\$784,316	\$49,020
Douglas	101	0.3%	\$555,332	\$5,498	4	0.3%	\$185,542	\$46,385
Ferry	116	0.3%	\$697,375	\$6,012	2	0.1%	\$86,890	\$43,445
Franklin	286	0.9%	\$2,749,493	\$9,614	19	1.3%	\$1,165,922	\$61,364
Garfield	3	0.0%	\$10,033	\$3,344	0	0.0%	\$0	\$0
Grant	447	1.3%	\$3,458,669	\$7,738	15	1.0%	\$1,036,232	\$69,082
Grays Harbor	468	1.4%	\$3,789,520	\$8,097	21	1.4%	\$1,230,367	\$58,589
Island	222	0.7%	\$1,578,018	\$7,108	3	0.2%	\$380,671	\$126,890
Jefferson	217	0.6%	\$1,553,730	\$7,160	10	0.7%	\$553,796	\$55,380
King	9,409	28.0%	\$77,509,159	\$8,238	454	31.1%	\$29,281,262	\$64,496
Kitsap	1,081	3.2%	\$7,411,626	\$6,856	37	2.5%	\$2,332,206	\$63,033
Kittitas	117	0.3%	\$769,184	\$6,574	4	0.3%	\$209,513	\$52,378
Klickitat	139	0.4%	\$1,172,931	\$8,438	8	0.5%	\$609,228	\$76,154
Lewis	469	1.4%	\$3,539,249	\$7,546	20	1.4%	\$1,174,364	\$58,718
Lincoln	47	0.1%	\$250,227	\$5,324	0	0.0%	\$0	\$0
Mason	301	0.9%	\$2,003,739	\$6,657	13	0.9%	\$629,098	\$48,392
Okanogan	510	1.5%	\$3,615,698	\$7,090	20	1.4%	\$1,070,195	\$53,510
Pacific	206	0.6%	\$1,511,104	\$7,335	5	0.3%	\$457,523	\$91,505
Pend Oreille	127	0.4%	\$954,910	\$7,519	7	0.5%	\$337,502	\$48,215
Pierce	3,751	11.2%	\$34,503,722	\$9,199	195	13.4%	\$13,860,675	\$71,080
San Juan	40	0.1%	\$245,320	\$6,133	20	1.4%	\$1,350,124	\$67,506
Skagit	646	1.9%	\$4,689,261	\$7,259	0	0.0%	\$0	\$0
Skamania	64	0.2%	\$470,686	\$7,354	1	0.1%	\$55,572	\$55,572
Snohomish	3,162	9.4%	\$21,774,500	\$6,886	96	6.6%	\$5,965,296	\$62,139
Spokane	3,417	10.2%	\$27,054,462	\$7,918	160	11.0%	\$10,276,899	\$64,231
Stevens	360	1.1%	\$2,677,411	\$7,437	14	1.0%	\$1,083,563	\$77,397
Thurston	917	2.7%	\$7,087,961	\$7,730	37	2.5%	\$2,742,087	\$74,110
Wahkiakum	3	0.0%	\$45,164	\$15,055	1	0.1%	\$33,890	\$33,890
Walla Walla	198	0.6%	\$1,348,730	\$6,812	7	0.5%	\$281,855	\$40,265
Whatcom	1,168	3.5%	\$8,236,288	\$7,052	36	2.5%	\$2,235,976	\$62,110
Whitman	103	0.3%	\$583,705	\$5,667	3	0.2%	\$128,664	\$42,888
Yakima	1,246	3.7%	\$10,728,379	\$8,610	74	5.1%	\$4,431,073	\$59,879
Unknown	6	0.0%	\$65,118	\$10,853	0	0.0%	\$0	\$0

*Appendix D. General Assistance-Unemployable (GA-U) Clients  
Cumulative Medicaid Expenditures in FY 2001\*  
by Primary Diagnosis, Summary*

Primary Diagnosis	General Assistance-Unemployable			In High Cost Group		
	Patients	Total Paid	Paid per Patient	Patients	Total Paid	Paid per Patient
<b>Total</b>	<b>33,556</b>	<b>\$264,294,156</b>	<b>\$7,876</b>	<b>1,456</b>	<b>\$93,589,645</b>	<b>\$64,279</b>
A - Infectious Disease	4,031	\$59,091,604	\$14,659	420	\$31,187,094	\$74,255
B - Malignancies	1,623	\$27,958,267	\$17,226	224	\$15,034,509	\$67,118
C - Endocrine and Metabolic Disorders	4,922	\$68,466,758	\$13,910	477	\$34,458,943	\$72,241
D - Hematologic Disorders	1,367	\$33,861,709	\$24,771	299	\$23,139,889	\$77,391
E - Mental Illness	10,869	\$129,490,914	\$11,914	798	\$53,535,801	\$67,087
F - Neurologic and Sensory Disorders	11,148	\$119,337,764	\$10,705	718	\$48,876,149	\$68,073
G - Cardiovascular	7,564	\$99,601,156	\$13,168	699	\$49,067,700	\$70,197
H - Respiratory Disease	14,246	\$165,299,484	\$11,603	1,051	\$71,047,133	\$67,600
I - Gastrointestinal and Liver	9,384	\$116,288,607	\$12,392	734	\$50,016,405	\$68,142
J - Genital or urinary (GU) Disorders	4,021	\$64,609,681	\$16,068	451	\$34,294,804	\$76,042
K - Obstetric and Gynecological Disorders	4,733	\$48,042,482	\$10,151	240	\$15,583,726	\$64,932
L - Skin Diseases	6,590	\$87,191,907	\$13,231	595	\$41,575,191	\$69,874
M - Orthopedic and Rheumatologic Disorders	9,671	\$87,741,233	\$9,073	439	\$27,656,985	\$63,000
N - Injuries and Poisoning	9,370	\$100,065,697	\$10,679	599	\$40,641,188	\$67,848
O - All Other	27,108	\$245,421,995	\$9,053	1,401	\$90,242,129	\$64,413

\*Note that if an individual had multiple diagnoses, their total dollars were counted in each diagnostic category.

*Appendix E. General Assistance-Unemployable (GA-U) Clients  
Cumulative Medicaid Expenditures in FY 2001\*  
by Primary Diagnosis, Detail*

Primary Diagnosis, Detail (see ICD9 Codes)	General Assistance-Unemployable per			In High Cost Group		
	Patients	Total Paid	Patient	Patients	Total Paid	Patient
H-Respiratory	14,246	\$165,299,484	\$11,603	1,051	\$71,047,133	\$67,600
H01-Diseases of the Upper Respiratory Tract	8,572	\$87,348,066	\$10,190	487	\$31,490,110	\$64,661
H02-Chronic Obstructive Pulmonary Disease	2,381	\$31,815,708	\$13,362	234	\$14,565,638	\$62,246
H03-Asthma	1,958	\$22,565,761	\$11,525	138	\$8,537,824	\$61,868
H04-Other Pulmonary Disease	7,771	\$120,221,269	\$15,471	894	\$62,357,571	\$69,751
I-GI/Liver	9,384	\$116,288,607	\$12,392	734	\$50,016,405	\$68,142
I01-Upper Gastro-Intestinal Disorders	2,707	\$34,645,692	\$12,799	210	\$14,479,009	\$68,948
I02-Inflammatory Bowel Disease	2,549	\$32,330,696	\$12,684	179	\$13,250,936	\$74,028
I03-Hepatitis and Liver Diseases	1,346	\$21,242,427	\$15,782	157	\$10,578,047	\$67,376
I04-Other Gastro-Intestinal Disorders	6,088	\$87,512,196	\$14,375	615	\$42,938,109	\$69,818
J-Genito/urinary	4,021	\$64,609,681	\$16,068	451	\$34,294,804	\$76,042
J01-Nephritis, Nephrotic Syndrome, Nephrosis	428	\$14,660,598	\$34,254	148	\$11,446,914	\$77,344
J02-Other Upper GU Disorders	3,300	\$52,048,610	\$15,772	356	\$26,627,218	\$74,796
J03-Male Genital Tract Disease	656	\$7,932,037	\$12,092	42	\$3,443,896	\$81,998
K-OB/Gyn	4,733	\$48,042,482	\$10,151	240	\$15,583,726	\$64,932
K01-Gynecological Diseases	274	\$2,813,722	\$10,269	11	\$564,926	\$51,357
K02-Non-malignant Disorders of the Breast	929	\$9,342,597	\$10,057	44	\$2,575,441	\$58,533
K03-Ovarian Dysfunction	99	\$916,962	\$9,262	7	\$345,397	\$49,342
K04-Other Female Genital Disorders	3,433	\$34,365,035	\$10,010	164	\$10,694,982	\$65,213
K05-Complications of Pregnancy	571	\$6,111,474	\$10,703	32	\$1,973,242	\$61,664
K06-Congenital Anomalies	298	\$3,587,460	\$12,038	23	\$1,456,901	\$63,344
K07-Perinatal Problems	87	\$2,240,345	\$25,751	19	\$1,454,025	\$76,528
L-Skin Disease	6,590	\$87,191,907	\$13,231	595	\$41,575,191	\$69,874
M-Connective Tissue/Diseases of the Spine	9,671	\$87,741,233	\$9,073	439	\$27,656,985	\$63,000
M01-Connective Tissue Disorders, Polymyalgia	208	\$2,576,309	\$12,386	18	\$1,177,884	\$65,438
M02-Peripheral Arthritis Conditions	2,951	\$27,619,836	\$9,359	140	\$8,290,553	\$59,218
M03-Diseases of the Spine	7,862	\$71,958,626	\$9,153	349	\$22,323,841	\$63,965
N-Injuries/poison	9,370	\$100,065,697	\$10,679	599	\$40,641,188	\$67,848
N01-Fractures	2,703	\$37,544,153	\$13,890	268	\$20,260,362	\$75,598
N02-Sprains and Strains	5,283	\$48,045,736	\$9,094	244	\$14,530,660	\$59,552
N03-Superficial Injuries, Contusions, Abrasions	2,625	\$32,799,623	\$12,495	207	\$14,225,756	\$68,723
N04-Poisoning by Medicinal & Biological Subst.	831	\$16,370,824	\$19,700	139	\$9,342,307	\$67,211
N05-Poisoning by Non-medicinal Substances	305	\$5,076,055	\$16,643	43	\$2,618,707	\$60,900
O-All Other	27,108	\$245,421,995	\$9,053	1,401	\$90,242,129	\$64,413

\*Note that if an individual had multiple diagnoses, their total dollars were counted in each diagnostic category.



**Appendix F. Diagnosis Groupings Based on All ICD-9 Codes**

Diagnosis Group		ICD 9 codes
A01	Infections, General	006 - 009 , 038 - 041 , 053 - 054 , 077 - 079 , 110 - 139 , 321 - 324 , 390
A02	Infections With Public Health Implications (excluding HIV/AIDS)	001 - 005 , 010 - 018 , 020 - 036 , 045 - 052 , 055 - 069 , 071 - 072 , 080 - 104 , 320 , 487
A03	HIV / AIDS and related diseases (Kaposi's)	042 , 176
B01	Respiratory malignancies	140 - 149 , 160 - 162 , 231
B02	GI malignancies	150 - 159 , 230
B03	Breast Cancer	174
B04	Leukemia	203 - 208
B05	Other malignancies	163 - 173 , 175 , 177 - 202
B06	Neoplasm of uncertain behavior	235 - 239
C01	Endocrine disorders except diabetes	240 - 249 , 251 - 255 , 257 - 259
C02	Diabetes	250
C03	Nutritional Deficiencies	260 - 269
C04	Other Metabolic Disorders, includes cystic fibrosis	270 - 271 , 273 - 277
D01	Immune disorders, Disorders of white blood cells	279 , 288
D02	Hereditary anemia (sickle cell, thalassemia)	282
D03	Bleeding disorders - Coagulation defects, and hemorrhagic conditions	286 - 287
D04	Other hematologic disorders Anemia and other hematopoietic disorders	280 - 281 , 283 - 285
E01	Non organic psychosis - Schizophrenic disorders, affective psychosis, delusional disorders	295 - 299
E02	Organic psychosis and dementias (except alcohol)	290 , 293 , 310
E03	Depression & adjustment reaction	309 , 311
E04	Eating disorders	278 , 307.5 , 783
E05	Childhood mental health issues - Disorders of childhood, includes ADD	313 - 315
E06	Other mental health disorders	300 - 302 , 312 , 316 , 797 , 306 - 307.4 , 307.8 - 317 - 319
E07	Mental retardation	317 - 319
E08	Alcoholic psychosisDrug psychosisAlcohol other substance abuse	291 - 292 , 303 - 305
F01	Childhood neurologic problems - Infantile CP, and congenital neurological disorders	343 , 740 - 743
F02	Epilepsy	345
F03	Headaches	346
F04	Other CNS diseases except epilepsy, headaches, and congenital and infantile CP	325 - 344 , 347 - 349
F05	Diseases of the peripheral nervous system and sense organs except eyes	350 - 359 , 380 - 389
F06	Disorders of the eyes	360 - 379
G02	Congenital CV anomalies of the heart, lungs, and great vessels	745 - 748
G03	Lipid disorders - Disorders of lipid metabolism	272
G04	Hypertension	401 - 405
G05	Ischemic Heart Disease	410 - 414
G06	Peripheral vascular disease - Diseases of arteries (PVD, aneurysm, etc)	440 - 448
G07	Cerebrovascular disease	430 - 438
G08	CHF - Acute cor pulmonale, Congestive Heart Failure	404.11, 404.91, 415 , 425 , 428 , 398.91, 401.11, 402.01, 402.91, 404.01
G09	Other heart disease (Rheumatic Fever, Rheumatic Heart Disease, myocarditis, valvular disease, conductive disorders)	390 - 398 , 420 - 424 , 426 - 427 , 429
H01	Diseases of the upper respiratory tract	460 - 478 , 784
H02	COPD, other obstructive pulmonary disease except asthma	490 - 492 , 494 - 496
H03	Asthma	493
H04	Other pulmonary disease - Pneumonia and Influenza and other non specified pulmonary conditions	480 - 487 , 500 - 519 , 786

*Appendix F cont'd.. Diagnosis Groupings Based on All ICD9 Codes*

	<b>Diagnosis Group</b>	<b>ICD 9 codes</b>
I02	Inflammatory bowel disease - Noninfectious enteritis and colitis	555 - 558
I03	Hepatitis and liver diseases	070 , 570 - 573
I04	Other GI disorders	520 - 529 , 538 - 569, 574 - 579 , 751 , 787
J01	Nephritis, Nephrotic Syndrome and Nephrosis (includes chronic renal failure)	580 - 589
J02	Other upper GU disorders including congenital	590 - 599 , 753 , 788 , 791
J03	Male genital tract disease including congenital and excluding malignancies	600 - 608 , 752.5 - 752.6
K01	GYN diseases - Uterine Fibroids, benign neoplasm of ovary, other benign female genital neoplasm	218 - 221
K02	Non malignant disorders of the breast	610 - 611
K03	Ovarian dysfunction	256
K04	Other Female genital disorders including congenital	612 - 629 , 752.1 - 752.4
K05	Complications of Pregnancy	630 - 677
K06	Congenital anomalies	749 - 750 , 752 , 754 - 756 , 758 - 759
K07	Perinatal problems - Certain conditions originating in the perinatal period (includes fetal alcohol syndrome and others)	760 - 779
L01	Skin diseases - Diseases Of Skin And Subcutaneous Tissue, Including Congenital Anomalies	680 - 709 , 757 , 782
M01	Connective tissue disorders, Polymyalgia	710 , 725
M02	Peripheral arthritic conditions - RA, OA, crystal arthropathies, etc.	711 - 716
M03	Diseases of the spine - Dorsopathies (neck, back, disc disease, etc.)	720 - 724
N01	Fractures	800 - 829
N02	Sprains and Strains	840 - 848
N03	Superficial injuries, contusions, abrasions	910 - 924
N04	Poisoning by medicinal and biological substances	960 - 979
N05	Poisoning by non-medicinal substances	980 - 989
O01	All other	All Other

