

DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES

EXHIBIT 10
DATE 1/26/2011
HB



Brian Schweitzer
GOVERNOR

Anna Whiting Sorrell
DIRECTOR

STATE OF MONTANA

www.dphhs.mt.gov

PO BOX 4210
HELENA, MT 59604-4210
(406) 444-5622
FAX (406) 444-1970

January 24, 2011

Representative Don Roberts, Chair
Appropriations Subcommittee for
Health and Human Services
State Capitol Building
Helena, MT 59620

Dear Chairman Roberts:

The following responses are being provided to answer questions asked by subcommittee members during Department of Public Health and Human Services presentations by the Developmental Services Division, Senior and Long Term Care Division, Healthy Montana Kids Program, and Addictive and Mental Disorders Division.

Questions from Senator Priest: Has the state received any federal grants that required the state to backfill the federal dollars after the grant ended?

As Director Whiting Sorrell responded during the Developmental Services Division overview, it has not been the practice of Governor Schweitzer's administration to backfill federal grants during the past 6 years. See further attached comments from Bob Runkel, Administrator of the Developmental Services Division, regarding the System of Care grant that was being discussed when this question arose.

Question from Representative Esp: Why are there so many youth served in Wheatland and Deer Lodge Counties as compared with surrounding counties?

The map that depicted services was based on the location of the delivery of services not the residency of the child. See further attached comments and a map identifying the county of residence of the child from Bob Runkel, Administrator of the Developmental Services Division.

Question from Senator Lewis: What does research show about the efficacy of Psychiatric Residential Treatment Facilities (PRTFs)?

See attached comments from Bob Runkel, Administrator of the Developmental Services Division. We were unable to find a study that we would recommend as providing the answer to the efficacy question. Each of the studies that we reviewed was limited in some way. PRTFs are a mandatory service for Medicaid children under the EPSDT program. Some states have chosen

to provide the inpatient benefit through long term hospitalizations. Montana Medicaid previously covered these types of hospitalizations, they were discontinued in 1993.

Question from Representative Esp: What income is disregarded in the Healthy Montana Kids Program?

See attached handout on Healthy Montana Kids Disregards. The programs have slightly different disregards depending on the federal funding source, CHIP or Medicaid, and what is allowed under the two different programs.

Question from Representative Esp: How many Adult Protective Services (APS) FTE were in the Senior and Long Term Care Division and/or the Department in FY 2002? How has this changed in 2010?

The Department had 37 FTE in 2002: 35 protective service workers in the field and 2 in the central office. In 2002, these workers responded to 2458 referrals.

The Department had 43.5 FTE in 2010: 41.25 protective service workers in the field and 2 in the central office. In 2010, these workers responded to 5500 referrals.

Question from Representative Esp: When was Adult Protective Services created and/or when did the services provided become mandatory?

The Montana Legislature first created Adult Protective Services requirements in the 1975 legislative session. Department personnel were assigned to this task.

The Montana Legislature first mandated department investigations and interventions to formally protect adult and developmentally disabled persons from abuse, sexual abuse, neglect and financial exploitation during the 1983 legislature.

Question from Representative Esp: How many bed days were used or paid for in crisis diversion?

Lou Thompson, Administrator of AMDD, provided a handout on tan paper that was distributed on 1/24/2011 by the subcommittee secretary with further information in response to this question. One detention bed per facility is paid for when the facility has no clients.

32 clients used 133 days of emergency detention in Butte from August 2009 through October 2010. The Department paid for 256 days of empty beds.

28 clients used 104 days of emergency detention in Bozeman from April 2010 through October 2010. The Department paid for 63 days of empty beds.

Question from Representative Belcourt: What is the recidivism number for people receiving chemical dependency treatment?

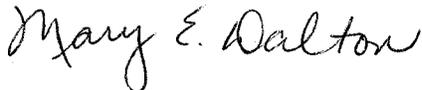
Lou Thompson, Administrator of AMDD, provided a handout on tan paper that was distributed on 1/24/2011 by the subcommittee secretary with further information in response to this question. In FY 2010 the recidivism number for readmission to chemical dependency treatment both at MDC and in other services was 9%. 701 out of 7550 people treated statewide had a readmission. 62 out of 686 people treated at MCDC had a readmission.

Question from Senator Priest: How effective are chemical dependency programs and what are the recidivism rates?

Lou Thompson, Administrator of AMDD, provided a handout on tan paper that was distributed on 1/24/2011 by the subcommittee secretary with further information in response to this question. Some of the results 1 year post treatment include: 50% have not used since treatment; 92% have not been arrested; 95% have no probation and parole violations; 98% have no DUI arrests. Recidivism is outlined in the question above.

The Division Administrators or I would be happy to discuss these measures further if the subcommittee has further questions.

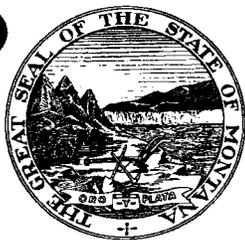
Sincerely,



Mary E. Dalton, Branch Manager
Medicaid and Health Services Branch

cc: Subcommittee members
Anna Whiting Sorrell
Jon Ebel
Katherine Buckley Patton
Lou Thompson
Kelly Williams
Bob Runkel
Hank Hudson
Linda Snedigar

DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES



Brian Schweitzer
GOVERNOR

Anna Whiting Sorrell
DIRECTOR

STATE OF MONTANA

www.dphhs.mt.gov

PO BOX 4210
HELENA, MT 59604-4210
(406) 444-5622
FAX (406) 444-1970

Request for Information

Health and Human Services Joint Appropriation Subcommittee
January 21, 2011

Requestor: Senator Priest

Respondent: Bob Runkel, Administrator
Developmental Services Division

Question: **Has the state received any federal grants that required the state to backfill the federal dollars after the grant ended?**

Answer: There was one federal grant received by the Developmental Services Division that has ended. The grant was initially received in October, 2004 and was provided by the Substance Abuse and Mental Health Services Administration. It ended September 30, 2010. This federal grant was provided to the Children's Mental Health Bureau (CMHB) for the purpose of developing a system of care for youth and families. The state chose to use pilot projects called Kids Management Authorities (KMAs) in six communities to determine how best to implement a system of care statewide. While many useful things were learned during this grant, the state did not backfill the federal funding for this project after the grant ended, and the KMAs were not sustained.

Federal funds, matched with state dollars were used to support the KMAs who provided a variety of services including costs of counseling, parent support, multiagency planning, parent and youth groups etc. The state funds that were used for match are now being used to continue family and youth education, support and training, and provide flexible funding for youth in need of multiagency services to keep the children and youth in community settings.

An Equal Opportunity Employer



DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES



Brian Schweitzer
GOVERNOR

Anna Whiting Sorrell
DIRECTOR

STATE OF MONTANA

www.dphhs.mt.gov

PO BOX 4210
HELENA, MT 59604-4210
(406) 444-5622
FAX (406) 444-1970

Request for Information

Health and Human Services Joint Appropriation Subcommittee
January 21, 2011

Requestor: Representative Esp
Senator Lewis

Respondent: Bob Runkel, Administrator
Developmental Services Division

Question: **Why are there so many youth served in Wheatland County (as compared with surrounding counties) and in Deer Lodge County?** (This question is in reference to Page 22 of the Developmental Services Division, DPHHS Presentation Document that discussed children's mental health services by mapping the number of children served in each of Montana's counties.)

Answer: The information on the map provided on page 22 of the Developmental Services Division Presentation Document was based on the information available from paid claims. The number in each county indicates the number of youth who received services from the provider in that county who billed for children's mental health services. Therefore, the map on page 22 reflects the location of the delivery of the service and not the residency of the child.

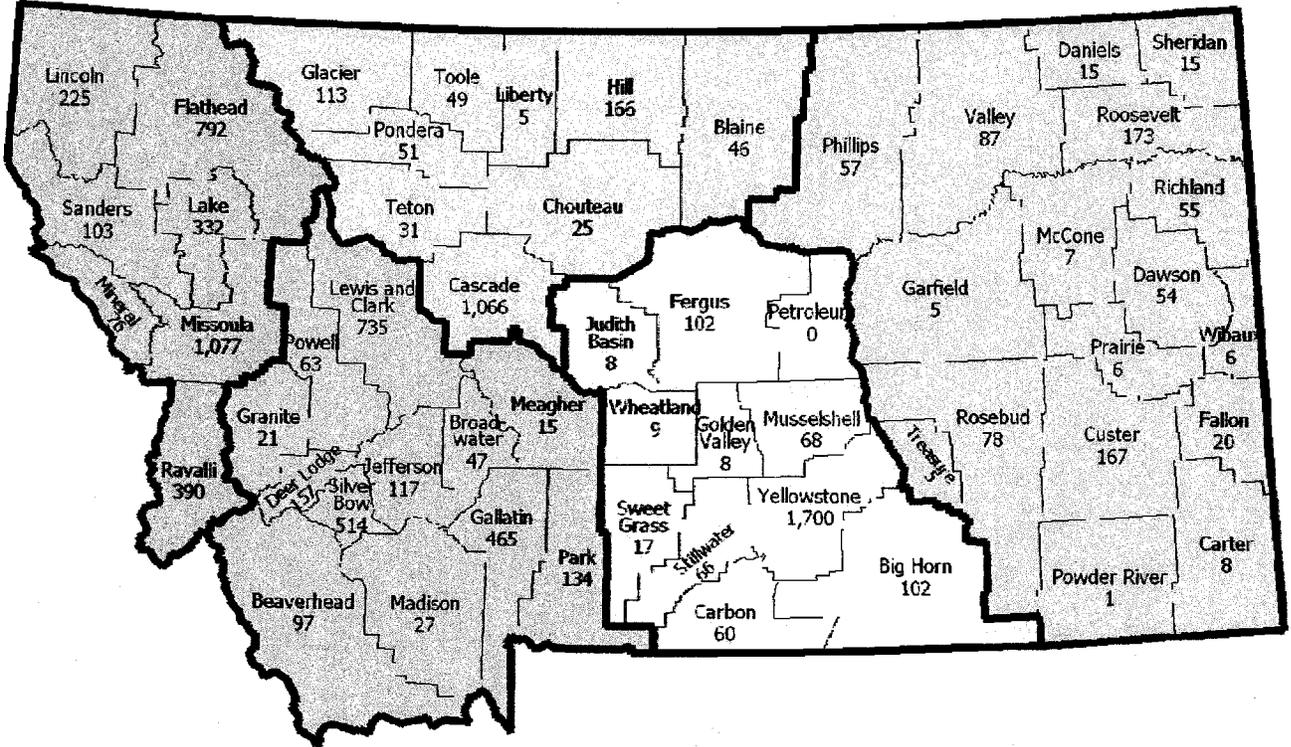
The map on the following page identifies by county of residence the number of children and youth served:

An Equal Opportunity Employer



DPHHS – Children's Mental Health Bureau

Number of People Served FY 2010



Region 1 2 3 4 5

DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES



Brian Schweitzer
GOVERNOR

Anna Whiting Sorrell
DIRECTOR

STATE OF MONTANA

www.dphhs.mt.gov

PO BOX 4210
HELENA, MT 59604-4210
(406) 444-5622
FAX (406) 444-1970

Request for Information

Health and Human Services Joint Appropriation Subcommittee
January 21, 2011

Requestor: Senator Lewis

Respondent: Bob Runkel, Administrator
Children's Mental Health Bureau

Question: **What does research show about the efficacy of Psychiatric Residential Treatment Facilities (PRTFs)?**

Answer: A proper answer to this question would require a comprehensive review of the literature. Jani McCall from the Yellowstone Boys and Girls Ranch was called and she provided a graph that I believe came from an internal study of their outcomes. The graph is attached.

After a cursory look at the literature, we did not find any study that we would recommend as providing the answer to the efficacy question. Each of the studies reviewed were limited in some way. The best we can tell without the benefit of a comprehensive review of literature is that the research is inconclusive about the efficacy of this level of care.

Although dated, the 1999 Surgeon General's Report on Mental Health probably says it best in its concluding paragraph which states "...*In summary, youth who are placed in RTCs clearly constitute a difficult population to treat effectively. The outcomes of not providing residential care are unknown. Transferring gains from a residential setting back into the community may be difficult without clear coordination between RTC staff and community services, particularly schools, medical care, or community clinics. Typically, this type of coordination or aftercare service is not available upon discharge. The research on RTCs is not very enlightening about the potential to substitute RTC care for other levels of care, as this requires comparisons with other interventions. Given the limitations*

An Equal Opportunity Employer



of current research, it is premature to endorse the effectiveness of residential treatment for adolescents. Moreover, research is needed to identify those groups of children and adolescents for whom the benefits of residential care outweigh the potential risks.

The Surgeon General's report is long and comprehensive covering the many aspects of mental health issues and services for children and adults. It can be found at: <http://www.surgeongeneral.gov/library/mentalhealth/toc.html#chapter3>

A copy from the subsection discussing residential services which is under the section on children's mental health services follows:

Residential Treatment Centers

Residential treatment centers are the second most restrictive form of care (next to inpatient hospitalization) for children with severe mental disorders. Although used by a relatively small percentage (8 percent) of treated children, nearly one-fourth of the national outlay on child mental health is spent on care in these settings (Burns et al., 1998). However, there is only weak evidence for their effectiveness.

A residential treatment center (RTC) is a licensed 24-hour facility (although not licensed as a hospital), which offers mental health treatment. The types of treatment vary widely; the major categories are psychoanalytic, psycho educational, behavioral management, group therapies, medication management, and peer-cultural. Settings range from structured ones, resembling psychiatric hospitals, to those that are more like group homes or halfway houses. While formerly for long-term treatment (e.g., a year or more), RTCs under managed care are now serving more seriously disturbed youth for as briefly as 1 month for intensive evaluation and stabilization.

Concerns about residential care primarily relate to criteria for admission; inconsistency of community-based treatment established in the 1980s; the costliness of such services (Friedman & Street, 1985); the risks of treatment, including failure to learn behavior needed in the community; the possibility of trauma associated with the separation from the family; difficulty reentering the family or even abandonment by the family; victimization by RTC staff; and learning of antisocial or bizarre behavior from intensive exposure to other disturbed children (Barker, 1998). These concerns are discussed below.

In the past, admission to an RTC has been justified on the basis of community protection, child protection, and benefits of residential treatment per se (Barker, 1982). However, none of these justifications have stood up to research scrutiny. In particular, youth who display seriously violent and aggressive behavior do not appear to improve in such settings, according to limited evidence (Joshi & Rosenberg, 1997). One possible reason is that association with delinquent or deviant peers is a major risk factor for later behavior problems (Loeber & Farrington, 1998). Moreover, community interventions that target change in peer associations have been found to be highly effective at breaking contact with violent peers and reducing aggressive behaviors (Henggeler et al., 1998). Although removal from the community for a time may be necessary for some, there is evidence that highly targeted behavioral interventions provided on an outpatient basis can ameliorate such behaviors (Brestan & Eyberg, 1998). For children in the second category (i.e., those needing protection from themselves because of suicide attempts, severe substance use, abuse, or persistent running away), it is possible that a brief hospitalization for an acute crisis or intensive community-based services may be more appropriate than an RTC. An intensive long-term program such as an RTC with a high staff to child ratio may be of benefit to some children, especially when sufficient supportive services are not available in their communities. In short, there is a compelling need to clarify criteria for admission to RTCs

(Wells, 1991). Previous criteria have been replaced and strengthened (i.e., with an emphasis on resources needed after discharge) by the National Association of Psychiatric Treatment Centers for Children (1990).

The evidence for outcomes of residential treatment comes from research published largely in the 1970s and 1980s and, with three exceptions, consists of uncontrolled studies (see Curry, 1991).

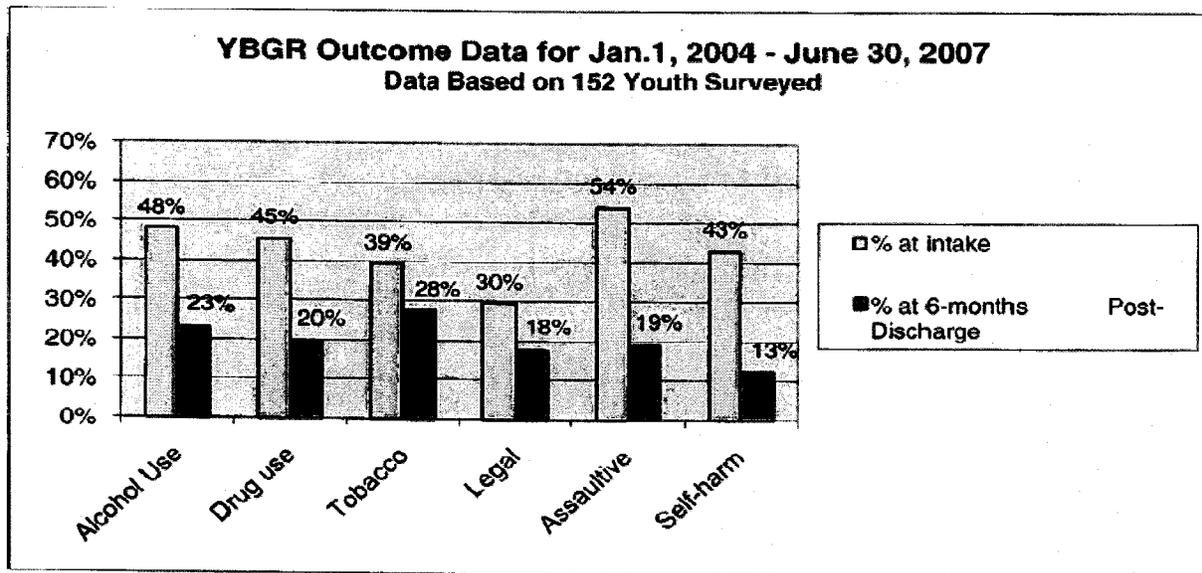
Of the three controlled studies of RTCs, the first evaluated a program called Project Re-Education (Re-Ed). Project Re-Ed, a model of residential treatment developed in the 1960s, focuses on training teacher-counselors, who are backed up by consultant mental health specialists. Project Re-Ed schools are located within communities, facilitating therapeutic work with the family and allowing the child to go home on weekends. Camping also is an important component of the program, inspired by the Outward Bound Schools in England. The first published study of Project Re-Ed compared outcomes for adolescent males in Project Re-Ed with untreated disturbed adolescents and with nondisturbed adolescents. Treated adolescents improved in self-esteem, control of impulsiveness, and internal control compared with untreated adolescents, according to ratings by Project Re-Ed staff and by families (Weinstein, 1974). A 1988 follow-up study of Project Re-Ed found that when adjustment outcomes were maintained at 6 months after discharge from Project Re-Ed, those outcomes were predicted more by community factors at admission (e.g., condition of the family and school, supportiveness of the local community) than by client factors (e.g., diagnosis, school achievement, age, IQ). This suggested that interventions in the child's community might be as effective as placement in the treatment setting (Lewis, 1988).

The only other controlled study compared an RTC with therapeutic foster care through the Parent Therapist Program. Both client groups shared comparable backgrounds and made similar progress in their respective treatment program. However, the residential treatment cost twice as much as therapeutic foster care (Rubenstein et al., 1978).

Despite strong caveats about the quality, sophistication, and import of uncontrolled studies, several consistent findings have emerged. For most children (60 to 80 percent), gains are reported in areas such as clinical status, academic skills, and peer relationships. Whether gains are sustained following treatment appears to depend on the supportiveness of the child's post-discharge environment (Wells, 1991). Several studies of single institutions report maintenance of benefits from 1 to 5 years later (Blackman et al., 1991; Joshi & Rosenberg, 1997). In contrast, a large longitudinal six-state study of children in publicly funded RTCs found at the 7-year follow-up that 75 percent of youth treated at an RTC had been either readmitted to a mental health facility (about 45 percent) or incarcerated in a correctional setting (about 30 percent) (Greenbaum et al., 1998).

In summary, youth who are placed in RTCs clearly constitute a difficult population to treat effectively. The outcomes of not providing residential care are unknown. Transferring gains from a residential setting back into the community may be difficult without clear coordination between RTC staff and community services, particularly schools, medical care, or community clinics. Typically, this type of coordination or aftercare service is not available upon discharge. The research on RTCs is not very enlightening about the potential to substitute RTC care for other levels of care, as this requires comparisons with other interventions. Given the limitations of current research, it is premature to endorse the effectiveness of residential treatment for adolescents. Moreover, research is needed to identify those groups of children and adolescents for whom the benefits of residential care outweigh the potential risks.

Yellowstone Boys and Girls Ranch Outcome Graph:



Healthy Montana Kids (HMK) Program Disregards

	HMK Plus (Children's Medicaid)	HMK (formerly Children's Health Insurance Plan or CHIP)
Household Composition	<p>The filing unit must include and consider income for:</p> <ol style="list-style-type: none"> 1. Child (0 through 18 years) for whom application is being made; 2. Child's natural/adoptive parent(s); 3. Child's stepparent (stepparent income is deemed); 4. Child's spouse; and 5. Unborn siblings of the applicant child <p>Optional filing unit members :</p> <ol style="list-style-type: none"> 1. Child's siblings (0 thru 18) 2. Child's step siblings (0 thru 18) 	<p>The filing unit must include and consider income for:</p> <ol style="list-style-type: none"> 3. Child (0 through 18 years) for whom application is being made; 4. Child's natural/adoptive parent(s) 5. Child's step parent; 6. Child's spouse 7. Child's siblings (0 through 18 years - including unborn); and 8. Child's siblings age 19 through 22 who are attending college (sibling's income is not counted).
Resources (i.e., assets)	Not counted	Not counted
Income eligibility is based on:	Countable <u>Monthly</u> Income	Countable <u>Annual</u> Income
Unearned Income (e.g., child support, social security, etc.)	No disregard applied	No disregard applied
Earned Income (e.g., wages, commissions, etc.)	<ol style="list-style-type: none"> 1. Up to \$120 <u>monthly</u> work expenses for each wage earner whose income is counted 2. \$200 <u>monthly</u> for each dependent receiving care (so long as family has out-of-pocket expense) 	<ol style="list-style-type: none"> 1. \$1,440 <u>annual</u> work expenses for each wage earner whose income is counted 2. Up to \$2,400 <u>annually</u> for each dependent receiving care (so long as family has out-of-pocket expense)
Self-employment (i.e., earned income)	<p>In addition to the earned income disregards above:</p> <p>Most costs of doing business are allowable expenses and would be accepted as listed on the income tax forms with some exceptions.</p> <p>Examples of non-allowable expenses per regulations are:</p>	<p>In addition to the earned income disregards above:</p> <p>Business expenses (except for carry-over losses from previous years) permitted by the IRS are allowable expenses.</p>

	<ol style="list-style-type: none"> 1. Repayment of loan principal; 2. Federal, state and local income taxes; 3. Depreciation; 4. Social Security taxes; 5. Meals and entertainment costs; and 6. Transportation to and from work. 	
--	---	--

HMK Example:

This family's HMK application is received June 24. The family is composed of 1 parent and 2 children ages 3 and 8. The parent works 40 hours per week earning \$15 per hour and children each receive \$400 from Social Security (i.e., non-custodial parent is disabled). Dependent care costs \$300 monthly for the 3 year old and \$200 during the summer months for the 8 year old. Income calculation:

\$400 per month X 2 children X 12 months:	\$ 9,600 annual unearned income
\$15 per hour X 40 hours per week X 52 weeks:	\$31,200 annual earned income
Annual earned income disregard:	- 1,440 earned income disregard
Annual dependent care disregard:	- <u>4,800</u> dependent care disregard
Annual countable earned income:	\$24,960
Total Countable income (earned and unearned):	\$34,560 annually
Maximum annual HMK income limit for a family of 3:	\$45,775

This family's countable annual income is less than the HMK annual income guideline for a family of 3 so the children will be enrolled in HMK effective July 1 through June 30 of the following year.

HMK Plus Example:

Eligibility determination is month specific (point in time rules).

This family's HMK application is received June 24. The family is composed of 1 parent and 2 children ages 3 and 8. The parent works 40 hours per week earning \$10 per hour and the children each receive \$400 from Social Security (i.e., non-custodial parent is disabled). Dependent care costs \$300 monthly for the 3 year old \$100 monthly for the 8 year old.

Income calculation:	
40 hr/wk x \$10.00/hr = \$400 x 4.3 =	\$ 1,720 monthly earned income
Monthly earned income disregard:	- 120 earned income disregard
Monthly dependent care disregard:	- <u>400</u> (2 children at \$200 each)
(as in this case, actual payment may be higher or lower)	
Monthly net earned income:	\$ 1,200
Monthly Social Security:	+ <u>800</u>
Monthly Countable income:	\$ 2,000

Compare to monthly HMK **Plus** Income Standard for family of 3 which is \$2, 029

This family's countable monthly income is less than the HMK **Plus** monthly income guideline for a family of three so the children will be enrolled in HMK **Plus** effective June 1 through May 31 of the following year. If retroactive coverage is needed, up to 3 months prior to the month of application can be considered for the 2 children but only for months when there was a medical need.

DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES



Brian Schweitzer
GOVERNOR

Anna Whiting Sorrell
DIRECTOR

STATE OF MONTANA

www.dphhs.mt.gov

PO BOX 4210
HELENA, MT 59604-4210
(406) 444-5622
FAX (406) 444-1970

January 24, 2011

Representative Don Roberts, Chair
Appropriations Subcommittee
Health and Human Services
State Capitol Building
Helena, MT 59620

Dear Chairman Roberts:

The following information is being provided in response to your question regarding transplants during the Department of Public Health and Human Services presentation on January 17, 2011. **Kidney, cornea and bone marrow transplants were a covered service prior to 9/26/08. Costs for these transplants for adults and for all transplants for children are in the Medicaid base budget and are not a part of the NP11119 request in the Health Resource Division.**

The three charts provide information showing the type of transplants and whether the patient is an adult or child. Please note that because of the limited number of transplants that are performed, the Department must be cognizant that the release of cost information regarding transplants may inadvertently disclose information identifiable to a specific patient. In place of specific cost information, we are attached national average charge and cost information on a wide variety of transplants. This information is representative of costs that are encountered for Montana Medicaid patients.

Chart 1 "Organ and Tissue Transplants Performed" provides information on the transplants that were actually performed for Medicaid patients. Please note that not all transplants that are performed necessarily result in payment for the services because the client may have a different primary payer. Transplants must be covered for children under the EPSDT provisions of Medicaid. Montana has covered kidney, bone marrow and cornea transplants for adults since the 1990's. Effective September 26, 2008, Medicaid coverage for other non-experimental (as defined by Medicare) adult transplants began. Four liver and 3 heart transplants in adults have taken place since September 26, 2008.

**Organ and Tissue Transplants Performed
2008-2010**

Transplant Type	Adults	Children
*Kidney	12	0

<u>Liver</u>	4	0
<u>Heart</u>	3	0
<u>*Bone Marrow</u>	4	2

***Kidney, cornea and bone marrow transplants were a covered service prior to 9/26/08. Costs for these transplants and for transplants for children are in the Medicaid base budget and are not a part of the NP11119 request.**

Chart 2 “Listed for a Transplant” provides current information on those Medicaid patients who have been evaluated and are awaiting a transplant. For these clients an evaluation has been completed and the transplant has been determined to be medically necessary and appropriate. Clients are on a waiting list for transplant.

Listed for a Transplant

Transplant Type	Adults	Children
<u>*Kidney</u>	3	7
<u>Liver</u>	1	0
<u>Lung</u>	1	0
<u>Pancreas</u>	1	0

Chart 3 “Pending Transplants” provides information on Montana Medicaid patients who currently are awaiting an evaluation to receive a transplant. Evaluation has not yet been completed to determine medical necessity and appropriateness.

Pending Transplants

Transplant Type	Adults	Children
<u>*Kidney</u>	0	1
<u>Kidney/Pancreas</u>	1	0
<u>Liver</u>	1	0
<u>Lung</u>	1	2
<u>Heart</u>	0	1

Please feel free to contact either Terry Krantz or me if you have any questions.

Sincerely,

Mary E. Dalton

Mary E. Dalton, Branch Manager
Medicaid & Health Services Branch

cc: Subcommittee members
Anna Whiting Sorrell
Jon Ebel
Laurie Lamson
Terry Krantz
Beckie Beckert-Graham

Attachments: Estimated Transplant costs (2008)

Med/transplant ques subcom 012411

Estimated Cost of Coverage for Transplants (2008)

Transplant	HOSPITAL AND PROCUREMENT				PHYSICIAN				PHARMACY					
	Procurement	Hospital	Avg CCR for UT, CO, OR and WA = 4778	Percent of Total estimated payments	Physician	Evaluation	Follow-up	Avg MT Mcd % of Drgs reimbursed =.42	Percent of Total estimated payments	Immuno-suppressants	Estimated cost less rebate= 76.9%	Percent of Total estimated payments	Total Charges	Estimated Payment per Case.
Bone Marrow Autologous	\$21,200	\$169,900	\$91,308	66%	\$10,600	\$31,300	\$62,100	\$43,680	31%	\$6,300	\$4,076	3%	\$300,400	\$199,063
Cornea	\$0	\$13,200	\$6,307	67%	\$7,500	\$0	\$0	\$3,150	33%	\$0	\$0	0%	\$20,700	\$9,457
Heart Only	\$94,300	\$486,400	\$277,458	75%	\$50,800	\$34,200	\$99,700	\$77,574	21%	\$22,300	\$17,149	5%	\$787,700	\$372,181
Intestine Only	\$77,200	\$743,800	\$392,274	74%	\$100,600	\$48,400	\$124,300	\$114,786	22%	\$27,500	\$21,148	4%	\$1,121,800	\$528,207
Kidney Only	\$67,500	\$92,700	\$76,544	62%	\$17,500	\$16,700	\$7,400	\$34,272	28%	\$17,200	\$13,227	11%	\$259,000	\$124,042
Liver Only	\$73,600	\$286,100	\$171,865	69%	\$44,100	\$21,200	\$77,800	\$60,102	24%	\$20,600	\$15,841	6%	\$523,400	\$247,808
Single Lung Only	\$53,600	\$256,600	\$148,214	69%	\$27,900	\$7,500	\$84,300	\$50,274	23%	\$20,500	\$15,765	7%	\$450,400	\$214,252
Double Lung Only	\$96,500	\$344,700	\$210,805	68%	\$59,300	\$20,700	\$113,800	\$81,396	26%	\$22,800	\$17,533	6%	\$657,800	\$309,735
Pancreas Only	\$68,400	\$93,400	\$77,308	58%	\$16,300	\$16,500	\$58,700	\$38,430	29%	\$22,200	\$17,072	13%	\$275,500	\$132,810
Heart-Lung	\$151,900	\$682,500	\$398,676	75%	\$73,000	\$49,100	\$143,300	\$111,468	21%	\$24,000	\$18,456	3%	\$1,123,800	\$528,600
Intestine with Other	\$175,200	\$772,700	\$452,907	74%	\$116,200	\$58,200	\$136,900	\$130,746	21%	\$34,000	\$26,146	4%	\$1,293,200	\$609,799
Kidney-Heart	\$145,600	\$608,800	\$360,452	76%	\$66,000	\$34,400	\$129,600	\$96,600	20%	\$21,300	\$16,380	3%	\$1,005,700	\$473,432
Kidney-Pancreas	\$122,300	\$171,100	\$140,187	67%	\$32,000	\$18,400	\$73,800	\$52,164	25%	\$21,400	\$16,457	8%	\$439,000	\$208,607
Liver-Kidney	\$127,000	\$403,400	\$253,425	71%	\$65,000	\$31,300	\$114,700	\$88,620	25%	\$22,100	\$16,995	5%	\$763,500	\$359,040
Other Multi-organ	\$149,700	\$612,400	\$364,131	72%	\$87,000	\$40,500	\$157,200	\$119,574	24%	\$28,800	\$22,147	4%	\$1,075,600	\$505,853

Notes:

Source 2008 Milliman Research report April 2008 2008 U.S. organ and tissue transplant cost estimates and discussion
<http://www.transplantliving.org/beforethetransplant/finance/costs.aspx>

Cost information is estimated by applying known and average cost to charge ratios to charge amounts and applying known rebate information
 Shaded services represent coverage prior to 2009 for adults

All transplant categories represented in the Milliman report are provided for information purposes.