

Caseload Overlap

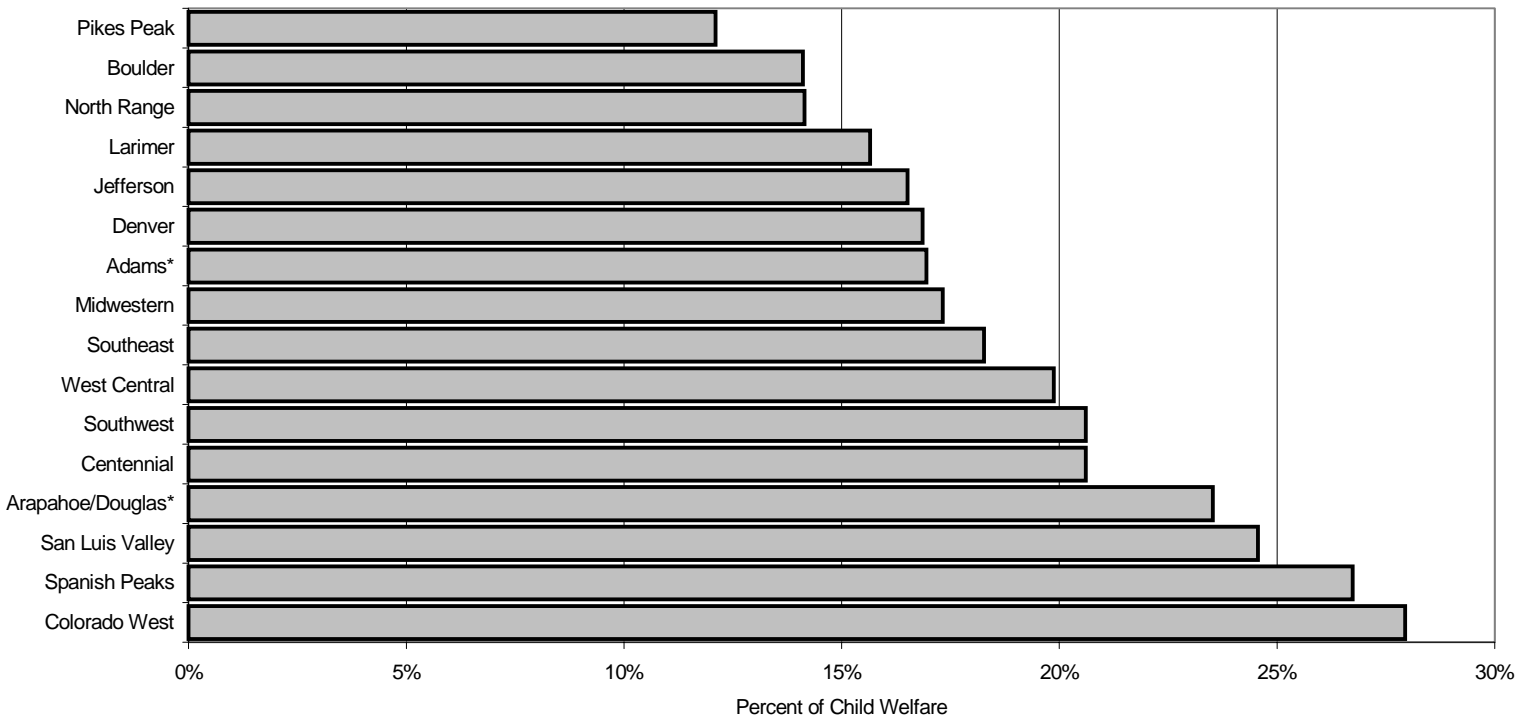
Between

Mental Health and Child Welfare Programs

Colorado 1999

By Age, Gender, And Geographical Region

**Caseload Overlap Between Mental Health and Child Welfare Programs
For Children and Adolescents Less Than 21 Years of Age
Colorado: 1999**



Prepared for
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INTRODUCTION / OVERVIEW

This report provides detailed information regarding the rate at which recipients of Child Welfare services also participate in publicly funded mental health services in the State of Colorado during 1999. These utilization rates are measured by determining the amount of caseload overlap between mental health and child welfare programs and expressing the result as a percent of the Child Welfare caseload. The report also includes information on the proportion of the mental health caseload is made up of recipients of child welfare services. The report includes unduplicated counts of the number of people served by mental health programs and the number of people served by child welfare programs in each region of the state, as well as unduplicated counts of the number (and proportion) of people served by both programs during the year.

Results indicate that there is substantial variation in caseload overlap among regions of the state. The proportion of child welfare service recipients who were served by mental health programs ranged from 14% in the Boulder and North Range Regions to 28% in the Colorado West Region. The caseload overlap was between 15% and 20% in seven of the state's sixteen regions and between 20% and 25% in four of the regions.

The proportion of Child Welfare service recipients who received mental health services tended to be lowest among children under 12 years of age and highest among children in the 12 to 17 year age group. In eleven of the sixteen service areas, less than 15% of the children in the youngest age group received mental health services. In twelve of the sixteen service areas, 25% or more of the children in the 12 to 17 year age group received mental health services.

Boys receiving child welfare services were more likely than girls to also received mental health in the 0-11 and the 12-17 age groups, but this difference was not evident in the 18 –20 age group. In the 0-11 age group, boys receiving child welfare services were more likely than girls to receive mental health services in 15 of the 16 regions. In the 12-17 age group, boys receiving child welfare services were more likely than girls to receive mental health services in 14 of the 16 regions. In the 18-20 age group, boys receiving child welfare services were more likely than girls to receive mental health services in 6 regions, girls were more likely to receive mental health services in 8 regions, and the genders were equal in their utilization of mental health services in 2 regions.

The unduplicated counts of the number of young people who received services from both the Division of youth Corrections and publicly funded mental health services that are reported here are based on analysis of data sets provided by the Colorado Office of Mental Health and Division of Youth Corrections. The mental health data sets include both inpatient and outpatient programs supported by both mental health and Medicaid fee for service programs. (See Appendix One for a list of data sets used in this analysis.)

Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to measure caseload overlap. Probabilistic Population Estimation is a statistical procedure that provides valid and reliable estimates of the number of people shared by anonymous data sets. These estimates are based on a statistical comparison of the distribution of dates of birth in the data set to the distribution of dates of birth in the general population. (See Appendix Two for a more detailed description of this statistical procedure.)

TABLE OF CONTENTS

Part One. Overview

Caseload Overlap and Percent of Child Welfare by Region	
Table 1	1-1
Figure 1	1-2
Caseload Overlap and Percent of Child Welfare by Age and Region	
Table 2	1-3
Figure 2	1-4
Relative Rate of Caseload Overlap and Percent of Child Welfare by Gender, Age, and Region	
Table 3	1-5
Figure 3	1-6

Part Two. Caseload Overlap and Percent of Child Welfare by Age, Gender, and Region

Adams	2-1
Arapahoe/Douglas.....	2-3
Boulder.....	2-5
Centennial	2-7
Colorado West.....	2-9
Denver.....	2-11
Jefferson.....	2-13
Larimer	2-15
Midwestern	2-17
North Range	2-19
Pikes Peak.....	2-21
San Luis Valley.....	2-23
Southeast	2-25
Southwest.....	2-27
Spanish Peaks.....	2-29
West Central.....	2-31

Appendix One

Data Sets	A1-1
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Appendix Two

Probabilistic Population Estimation	A2-1
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PART ONE

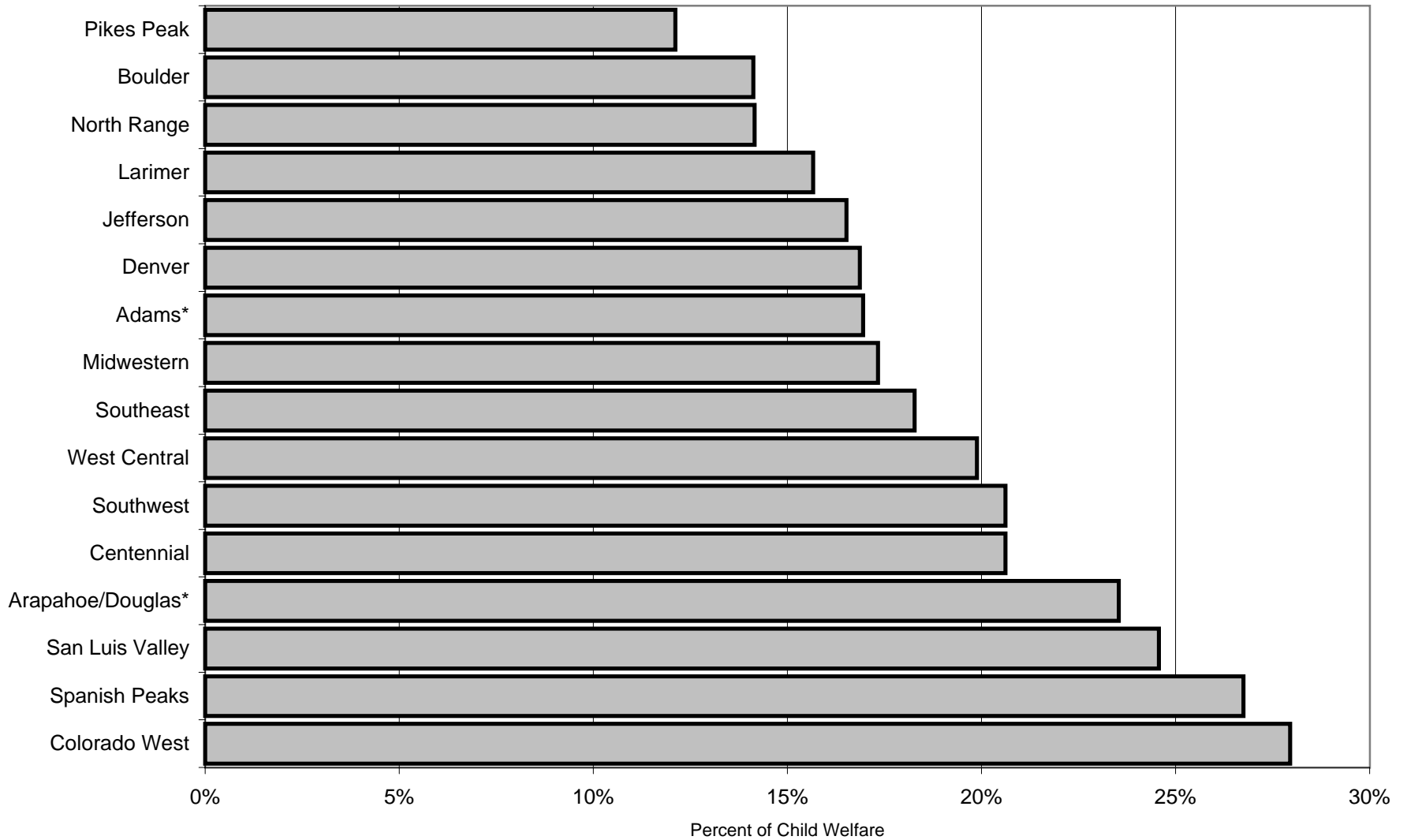
OVERVIEW

Table 1
Caseload Overlap
Between Mental Health and Child Welfare Programs
For Children and Adolescents Less Than 21 Years of Age
Colorado, 1999

	Number Served		Caseload Overlap	
	Child Welfare	Mental Health	Number	% of CW
Adams*	4,675 (4541-4809)	2,635 (2635-2736)	792 (737-847)	17% (15% - 18%)
Arapahoe/Douglas*	5,992 (5840-6143)	4,344 (4344-4473)	1,410 (1336-1483)	24% (22% - 25%)
Boulder	2,814 (2710-2918)	1,132 (1132-1198)	397 (358-436)	14% (13% - 15%)
Centennial	1,786 (1704-1869)	913 (913-973)	368 (331-406)	21% (19% - 22%)
Colorado West	3,013 (2906-3121)	2,408 (2408-2504)	842 (785-899)	28% (26% - 30%)
Jefferson	4,822 (4686-4959)	2,281 (2281-2374)	796 (741-852)	17% (15% - 18%)
Larimer	2,377 (2281-2472)	1,440 (1440-1514)	425 (385-466)	18% (16% - 19%)
Denver	8,930 (8745-9115)	4,164 (4164-4290)	1,506 (1430-1582)	17% (16% - 18%)
Midwestern	1,178 (1111-1246)	646 (646-696)	278 (245-311)	24% (22% - 25%)
North Range	2,335 (2240-2429)	956 (956-1017)	330 (295-366)	14% (13% - 15%)
Pikes Peak	6,667 (6507-6827)	3,432 (3432-3547)	1,707 (1626-1788)	26% (24% - 27%)
San Luis Valley	949 (889-1009)	672 (672-723)	233 (203-263)	25% (23% - 26%)
Southeast	1,017 (955-1080)	636 (636-685)	186 (159-213)	18% (17% - 20%)
Southwest	1,149 (1083-1216)	657 (657-707)	237 (207-267)	21% (19% - 22%)
Spanish Peaks	2,646 (2545-2747)	1,871 (1871-1956)	708 (655-760)	27% (25% - 28%)
West Central	1,167 (1100-1234)	695 (695-747)	232 (202-262)	20% (18% - 21%)

* Region includes parts of the Aurora CMHC.

Figure 1
Caseload Overlap Between Mental Health and Child Welfare Programs
For Children and Adolescents Less Than 21 Years of Age
Colorado: 1999



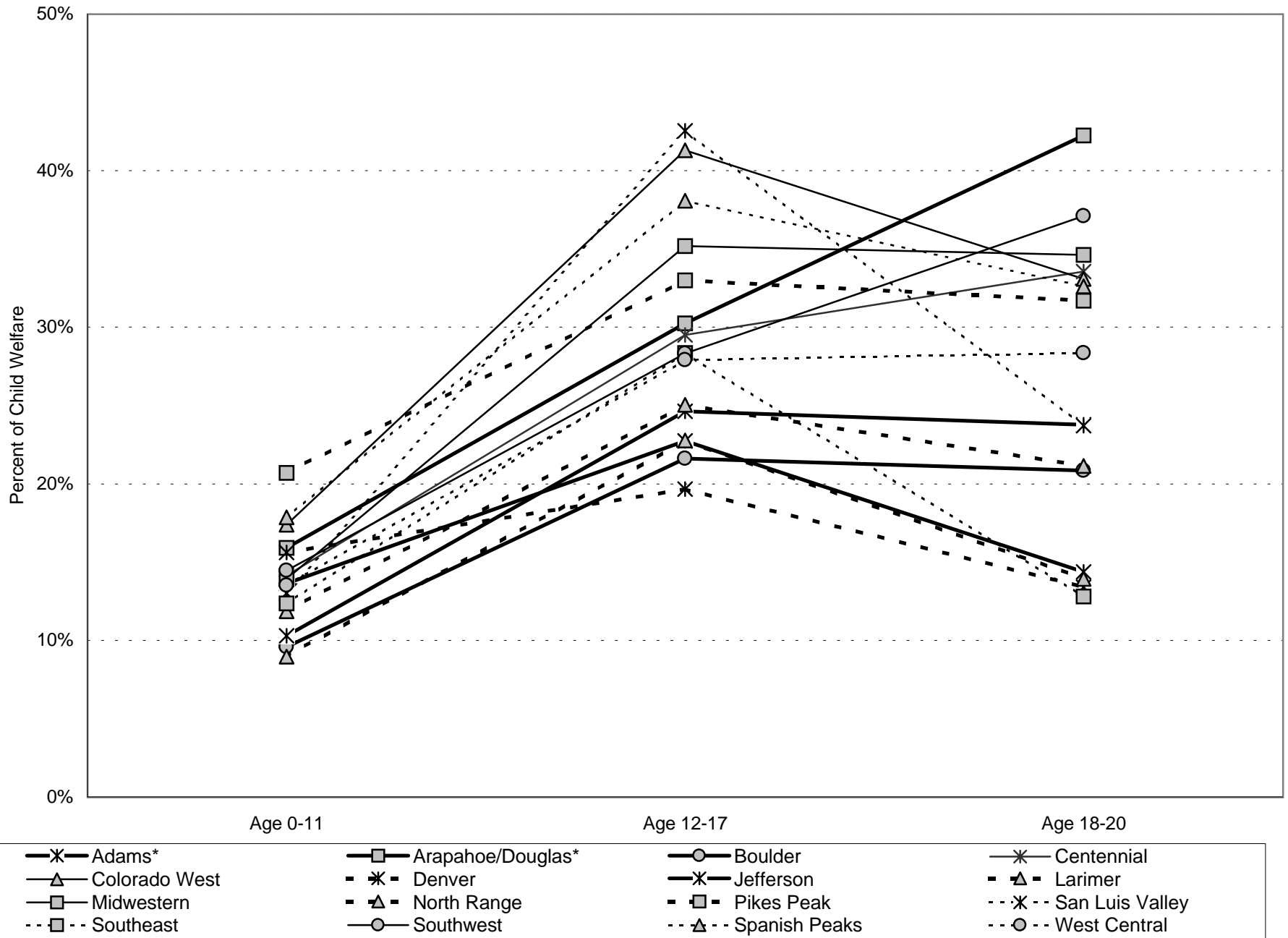
* Region includes part of the Aurora CMHC.

Table 2
Caseload Overlap
Between Mental Health and Child Welfare Programs
For Children and Adolescents Less Than 21 Years of Age
(Percent of Child Welfare)
Colorado, 1999

	Age 0-11 % (95%CI)	Age 12-17 % (95%CI)	Age 18-20 % (95%CI)
Adams*	14% (12% - 15%)	23% (20% - 26%)	14% (8% - 20%)
Arapahoe/Douglas*	16% (14% - 18%)	30% (27% - 34%)	42% (36% - 49%)
Boulder	10% (8% - 11%)	22% (19% - 24%)	21% (15% - 27%)
Centennial	14% (13% - 15%)	30% (27% - 32%)	34% (27% - 40%)
Colorado West	17% (15% - 19%)	41% (38% - 44%)	33% (27% - 39%)
Denver	16% (14% - 17%)	20% (17% - 22%)	13% (8% - 19%)
Jefferson	10% (9% - 12%)	25% (22% - 27%)	24% (18% - 29%)
Larimer	12% (10% - 14%)	25% (23% - 28%)	21% (16% - 26%)
Midwestern	14% (13% - 15%)	35% (33% - 38%)	35% (29% - 40%)
North Range	9% (8% - 10%)	23% (21% - 25%)	14% (10% - 18%)
Pikes Peak	21% (19% - 22%)	33% (30% - 36%)	32% (27% - 37%)
San Luis Valley	13% (12% - 14%)	43% (40% - 45%)	24% (16% - 32%)
Southeast	12% (11% - 14%)	28% (25% - 31%)	13% (7% - 19%)
Southwest	14% (13% - 16%)	28% (25% - 31%)	37% (31% - 43%)
Spanish Peaks	18% (16% - 20%)	38% (35% - 41%)	33% (26% - 39%)
West Central	14% (12% - 15%)	28% (25% - 31%)	28% (23% - 34%)

* Region includes part of the Aurora CMHC.

Figure 2
Caseload Overlap Between Mental Health and Child Welfare Programs
Colorado, 1999



* Region includes parts of the Aurora CMHC.

Table 3
 Caseload Overlap Between Mental Health and Child Welfare
 For Children and Adolescents Less Than 21 Years of Age
 (Female Utilization ÷ Male Utilization)
 Colorado, 1999

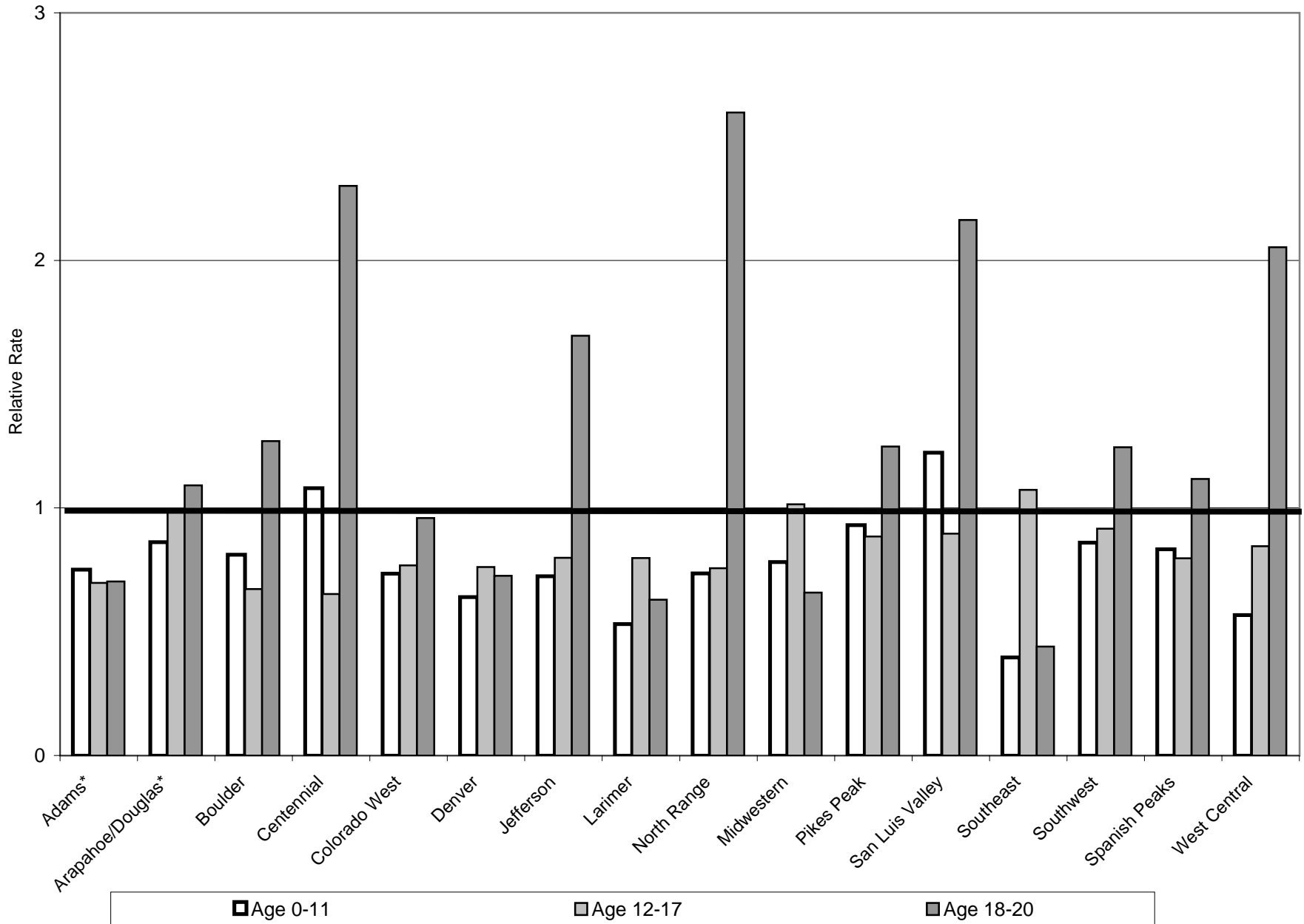
	<u>Age 0-11</u>	<u>Age 12-17</u>	<u>Age 18-20</u>
Adams*	0.8	0.7	0.7
Arapahoe/Douglas*	0.9	1.0	1.1
Boulder	0.8	0.7	1.3
Centennial	1.1	0.7	2.3
Colorado West	0.7	0.8	1.0
Denver	0.6	0.8	0.7
Jefferson	0.7	0.8	1.7
Larimer	0.5	0.8	0.6
Midwestern	0.8	1.0	0.7
North Range	0.7	0.8	2.6
Pikes Peak	0.9	0.9	1.2
San Luis Valley	1.2	0.9	2.2
Southeast	0.4	1.1	0.4
Southwest	0.9	0.9	1.2
Spanish Peaks	0.8	0.8	1.1
West Central	0.6	0.8	2.1

* Region includes part of the Aurora CMHC.

A relative rate less than 1 indicates greater male utilization.

A relative rate greater than 1 indicates greater female utilization.

Figure 3
Caseload Overlap Between Mental Health and Child Welfare Programs
For Children and Adolescents Less Than 21 Years of Age
(Female Utilization ÷ Male Utilization): Colorado, 1999



* Region includes part of the Aurora CMHC.

A relative rate less than 1 indicates greater male utilization.
 A relative rate greater than 1 indicates greater female utilization.

PART TWO

**CASELOAD OVERLAP
BETWEEN
MENTAL HEALTH AND CHILD WELFARE PROGRAMS
BY AGE, GENDER, AND REGION**

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Adams Region*, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	4,685 (4551-4819)	7,032 (6868-7194)	795 (726-864)	17% (15% - 18%)	11% (10% - 12%)
Age <21					
Total	4,675 (4541-4809)	2,635 (2635-2736)	792 (737-847)	17% (15% - 18%)	30% (27% - 33%)
Male	2,317 (2222-2411)	1,516 (1440-1592)	455 (413-496)	20% (17% - 22%)	30% (26% - 34%)
Female	2,358 (2263-2453)	1,119 (1053-1184)	338 (302-374)	14% (12% - 16%)	30% (26% - 34%)
Age 21-64					
Total	10 (4-16)	4,159 (4033-4285)	3 (<6)	26% (14% - 39%)	0% (0% - 0%)
Male	5 (1-9)	1,564 (1487-1642)	0 (0%-0%)	0% (0% - 0%)	0% (0% - 0%)
Female	5 (1-9)	2,595 (2495-2695)	3 (<6)	53% (28% - 78%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	238 (208-268)	---- ----	---- ----	---- ----
Male	0 (0-0)	86 (68-104)	---- ----	---- ----	---- ----
Female	0 (0-0)	152 (128-176)	---- ----	---- ----	---- ----

* Region includes part of the Aurora CMHC.

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Adams Region*, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	4,685 (4551-4819)	7,032 (6868-7194)	795 (726-864)	17% (15% - 18%)	11% (10% - 12%)
Age 0-11					
Total	2,694 (2592-2796)	1,138 (1072-1204)	368 (321-414)	14% (12% - 15%)	32% (28% - 36%)
Male	1,344 (1272-1416)	692 (640-743)	210 (172-247)	16% (13% - 18%)	30% (25% - 36%)
Female	1,350 (1278-1422)	446 (405-488)	158 (131-185)	12% (10% - 14%)	35% (29% - 42%)
Age 12-17					
Total	1,670 (1590-1750)	1,129 (1063-1195)	380 (332-427)	23% (20% - 26%)	34% (29% - 38%)
Male	802 (747-858)	633 (584-683)	217 (181-252)	27% (23% - 31%)	34% (29% - 40%)
Female	867 (810-925)	496 (452-539)	163 (131-195)	19% (15% - 23%)	33% (26% - 39%)
Age 18-20					
Total	311 (276-345)	368 (330-406)	45 (27-63)	14% (8% - 20%)	12% (7% - 17%)
Male	171 (145-196)	191 (164-218)	28 (15-43)	17% (8% - 25%)	15% (7% - 22%)
Female	140 (117-164)	177 (151-203)	16 (5-28)	12% (3% - 20%)	9% (3% - 16%)
Age 21-34					
Total	10 (4-16)	1,615 (1536-1694)	3 (1-4)	26% (14% - 39%)	0% (0% - 0%)
Male	5 (1-9)	567 (520-614)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Female	5 (1-9)	1,048 (985-1112)	3 (1-4)	53% (28% - 78%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	1,906 (1820-1991)	----	----	----
Male	0 (0-0)	780 (725-834)	----	----	----
Female	0 (0-0)	1,126 (1060-1192)	----	----	----
Age 50-64					
Total	0 (0-0)	638 (589-688)	----	----	----
Male	0 (0-0)	218 (189-246)	----	----	----
Female	0 (0-0)	421 (381-461)	----	----	----
Age 65+					
Total	0 (0-0)	238 (208-268)	----	----	----
Male	0 (0-0)	86 (68-104)	----	----	----
Female	0 (0-0)	152 (128-176)	----	----	----

* Region includes part of the Aurora CMHC.

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Arapahoe/Douglas* Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	5,999 (5847-6150)	11,015 (10809-11217)	1,414 (1307-1523)	24% (22% - 25%)	13% (12% - 14%)
Age <21					
Total	5,992 (5840-6143)	4,344 (4344-4473)	1,410 (1336-1483)	24% (22% - 25%)	32% (30% - 35%)
Male	3,155 (3044-3265)	2,417 (2320-2513)	768 (714-822)	24% (22% - 27%)	32% (28% - 35%)
Female	2,837 (2733-2941)	1,927 (1841-2013)	642 (592-691)	23% (20% - 25%)	33% (30% - 37%)
Age 21-64					
Total	7 (2-12)	6,272 (6117-6427)	4 (<9)	63% (38% - 87%)	0% (0% - 0%)
Male	3 (<6)	2,212 (2120-2304)	3 (<6)	100% (90% - 109%)	0% (0% - 0%)
Female	4 (<8)	4,060 (3935-4185)	1 (<4)	35% (-7% - 78%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	399 (360-438)	----	----	----
Male	0 (0-0)	98 (78-117)	----	----	----
Female	0 (0-0)	301 (267-335)	----	----	----

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**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Arapahoe/Douglas* Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	5,999 (5847-6150)	11,015 (10809-11217)	1,414 (1307-15)	24% (22% - 25%)	13% (12% - 14%)
Age 0-11					
Total	3,170 (3060-3281)	1,649 (1570-1729)	504 (445-566)	16% (14% - 18%)	31% (27% - 34%)
Male	1,640 (1561-1719)	960 (900-1021)	280 (234-328)	17% (14% - 20%)	29% (24% - 34%)
Female	1,530 (1454-1607)	689 (637-740)	225 (187-263)	15% (12% - 17%)	33% (27% - 38%)
Age 12-17					
Total	2,390 (2295-2486)	1,986 (1898-2073)	723 (639-808)	30% (27% - 34%)	36% (32% - 41%)
Male	1,260 (1190-1329)	1,093 (1028-1158)	385 (319-450)	31% (25% - 36%)	35% (29% - 41%)
Female	1,131 (1065-1197)	893 (834-951)	339 (285-393)	30% (25% - 35%)	38% (32% - 44%)
Age 18-20					
Total	431 (390-471)	709 (656-761)	182 (154-209)	42% (36% - 49%)	26% (22% - 30%)
Male	255 (223-286)	363 (326-401)	104 (81-126)	41% (32% - 50%)	29% (22% - 35%)
Female	176 (150-202)	345 (309-382)	78 (62-94)	44% (35% - 54%)	23% (18% - 27%)
Age 21-34					
Total	7 (2-12)	2,467 (2369-2564)	4 (3-6)	63% (38% - 87%)	0% (0% - 0%)
Male	3 (<6)	857 (800-914)	3 (3-3)	100% (90% - 109%)	0% (0% - 0%)
Female	4 (<8)	1,610 (1531-1688)	1 (<3)	35% (<78%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	2,928 (2821-3034)	----	----	----
Male	0 (0-0)	1,045 (981-1108)	----	----	----
Female	0 (0-0)	1,883 (1798-1968)	----	----	----
Age 50-64					
Total	0 (0-0)	878 (820-936)	----	----	----
Male	0 (0-0)	310 (276-345)	----	----	----
Female	0 (0-0)	568 (521-615)	----	----	----
Age 65+					
Total	0 (0-0)	399 (360-438)	----	----	----
Male	0 (0-0)	98 (78-117)	----	----	----
Female	0 (0-0)	301 (267-335)	----	----	----

* Region includes part of the Aurora CMHC.

**Child Welfare Caseload Overlap
 with Mental Health Programs
 Unduplicated Count (with 95%CI)
 Boulder Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,819 (2715-2923)	3,401 (3287-3511)	399 (369-429)	14% (13% - 15%)	12% (11% - 13%)
Age <21					
Total	2,814 (2710-2918)	1,132 (1132-1198)	397 (358-436)	14% (13% - 15%)	35% (32% - 38%)
Male	1,499 (1423-1575)	629 (580-678)	239 (209-269)	16% (14% - 18%)	38% (34% - 42%)
Female	1,315 (1244-1386)	503 (459-547)	158 (133-183)	12% (11% - 14%)	31% (28% - 35%)
Age 21-64					
Total	5 (1-9)	1,995 (1907-2082)	2 (<5)	38% (26% - 50%)	0% (0% - 0%)
Male	3 (<6)	909 (850-968)	1 (<3)	30% (10% - 50%)	0% (0% - 0%)
Female	2 (<5)	1,085 (1021-1150)	1 (<3)	50% (44% - 56%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	275 (242-307)	----	----	----
Male	0 (0-0)	78 (60-95)	----	----	----
Female	0 (0-0)	197 (170-225)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Boulder Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,819 (2715-2923)	3,401 (3287-3511)	399 (369-429)	14% (13% - 15%)	12% (11% - 13%)
Age 0-11					
Total	1,747 (1665-1829)	443 (402-485)	168 (149-187)	10% (8% - 11%)	38% (33% - 42%)
Male	918 (859-977)	252 (221-283)	97 (82-112)	11% (9% - 12%)	38% (32% - 44%)
Female	829 (772-885)	191 (164-218)	71 (59-83)	9% (7% - 10%)	37% (31% - 43%)
Age 12-17					
Total	925 (865-985)	513 (469-558)	200 (178-222)	22% (19% - 24%)	39% (35% - 43%)
Male	500 (457-544)	294 (260-327)	127 (111-144)	25% (22% - 29%)	43% (37% - 49%)
Female	425 (384-465)	220 (190-249)	73 (59-87)	17% (14% - 20%)	33% (27% - 40%)
Age 18-20					
Total	142 (119-165)	175 (150-201)	30 (21-38)	21% (15% - 27%)	17% (12% - 22%)
Male	80 (63-98)	83 (65-101)	15 (9-21)	19% (11% - 26%)	18% (11% - 25%)
Female	62 (46-77)	92 (73-111)	15 (9-20)	24% (14% - 33%)	16% (10% - 22%)
Age 21-34					
Total	5 (1-9)	670 (619-721)	2 (1-3)	38% (26% - 50%)	0% (0% - 0%)
Male	3 (<6)	306 (272-340)	1 (<2)	30% (10% - 50%)	0% (0% - 0%)
Female	2 (<5)	364 (326-401)	1 (1-1)	50% (44% - 56%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	945 (884-1005)	----	----	----
Male	0 (0-0)	433 (392-473)	----	----	----
Female	0 (0-0)	512 (468-556)	----	----	----
Age 50-64					
Total	0 (0-0)	380 (342-418)	----	----	----
Male	0 (0-0)	171 (145-196)	----	----	----
Female	0 (0-0)	209 (181-238)	----	----	----
Age 65+					
Total	0 (0-0)	275 (242-307)	----	----	----
Male	0 (0-0)	78 (60-95)	----	----	----
Female	0 (0-0)	197 (170-225)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Centennial Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,787 (1705-1870)	2,553 (2454-2646)	368 (347-390)	21% (19% - 22%)	14% (14% - 15%)
Age <21					
Total	1,786 (1704-1869)	913 (913-973)	368 (331-406)	21% (19% - 22%)	40% (38% - 43%)
Male	874 (816-932)	512 (468-557)	186 (160-213)	21% (19% - 23%)	36% (33% - 40%)
Female	912 (853-972)	401 (362-440)	182 (155-208)	20% (18% - 21%)	45% (42% - 49%)
Age 21-64					
Total	1 (<3)	1,325 (1253-1396)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Male	1 (<3)	522 (477-567)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Female	0 (0-0)	803 (747-858)	----	----	----
Age 65+					
Total	0 (0-0)	315 (280-350)	----	----	----
Male	0 (0-0)	89 (70-107)	----	----	----
Female	0 (0-0)	227 (197-256)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Centennial Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,787 (1705-1870)	2,553 (2454-2646)	368 (347-390)	21% (19% - 22%)	14% (14% - 15%)
Age 0-11					
Total	1,061 (997-1125)	364 (327-402)	150 (137-164)	14% (13% - 15%)	41% (37% - 45%)
Male	546 (500-592)	222 (193-251)	74 (63-86)	14% (11% - 16%)	33% (28% - 39%)
Female	515 (471-560)	142 (119-166)	76 (69-83)	15% (13% - 16%)	53% (48% - 58%)
Age 12-17					
Total	623 (574-672)	411 (371-451)	184 (169-199)	30% (27% - 32%)	45% (41% - 49%)
Male	289 (256-322)	230 (201-260)	105 (94-116)	36% (32% - 40%)	46% (40% - 51%)
Female	334 (298-370)	181 (154-207)	79 (69-89)	24% (20% - 27%)	44% (38% - 50%)
Age 18-20					
Total	102 (82-122)	138 (115-161)	34 (28-40)	34% (27% - 40%)	25% (20% - 29%)
Male	39 (27-52)	60 (45-75)	7 (3-12)	19% (8% - 29%)	12% (5% - 19%)
Female	63 (47-79)	78 (61-95)	27 (23-31)	43% (35% - 50%)	35% (29% - 41%)
Age 21-34					
Total	1 (<3)	497 (453-540)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Male	1 (<3)	199 (172-227)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Female	0 (0-0)	297 (264-331)	----	----	----
Age 35-49					
Total	0 (0-0)	589 (541-637)	----	----	----
Male	0 (0-0)	236 (205-266)	----	----	----
Female	0 (0-0)	354 (317-390)	----	----	----
Age 50-64					
Total	0 (0-0)	239 (208-269)	----	----	----
Male	0 (0-0)	87 (69-105)	----	----	----
Female	0 (0-0)	152 (128-176)	----	----	----
Age 65+					
Total	0 (0-0)	315 (280-350)	----	----	----
Male	0 (0-0)	89 (70-107)	----	----	----
Female	0 (0-0)	227 (197-256)	----	----	----

**Child Welfare Caseload Overlap
 with Mental Health Programs
 Unduplicated Count (with 95%CI)
 Colorado West Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	3,019 (2911-3126)	6,358 (6201-6512)	842 (794-891)	28% (26% - 30%)	13% (12% - 14%)
Age <21					
Total	3,013 (2906-3121)	2,408 (2408-2504)	842 (785-899)	28% (26% - 30%)	35% (33% - 37%)
Male	1,503 (1427-1579)	1,369 (1296-1441)	470 (428-513)	31% (29% - 34%)	34% (32% - 37%)
Female	1,511 (1435-1587)	1,039 (976-1102)	372 (334-410)	25% (22% - 27%)	36% (32% - 39%)
Age 21-64					
Total	5 (1-9)	3,787 (3666-3907)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Male	3 (<6)	1,405 (1332-1479)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Female	2 (<5)	2,382 (2286-2477)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	164 (138-189)	---- ----	---- ----	---- ----
Male	0 (0-0)	49 (36-63)	---- ----	---- ----	---- ----
Female	0 (0-0)	114 (93-135)	---- ----	---- ----	---- ----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Colorado West Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	3,019 (2911-3126)	6,358 (6201-6512)	842 (794-891)	28% (26% - 30%)	13% (12% - 14%)
Age 0-11					
Total	1,604 (1526-1683)	904 (845-963)	279 (249-309)	17% (15% - 19%)	31% (27% - 34%)
Male	818 (762-874)	542 (496-588)	163 (140-186)	20% (17% - 23%)	30% (26% - 34%)
Female	786 (731-841)	362 (325-399)	115 (96-135)	15% (12% - 17%)	32% (26% - 37%)
Age 12-17					
Total	1,182 (1115-1250)	1,139 (1073-1205)	488 (453-524)	41% (38% - 44%)	43% (40% - 46%)
Male	574 (527-621)	650 (600-700)	269 (245-293)	47% (42% - 51%)	41% (38% - 45%)
Female	608 (560-657)	489 (446-532)	219 (193-245)	36% (32% - 40%)	45% (39% - 50%)
Age 18-20					
Total	227 (197-257)	365 (327-402)	75 (61-89)	33% (27% - 39%)	21% (17% - 24%)
Male	111 (90-131)	177 (151-203)	37 (28-47)	34% (25% - 42%)	21% (16% - 26%)
Female	116 (95-137)	188 (161-215)	38 (27-48)	32% (23% - 42%)	20% (14% - 26%)
Age 21-34					
Total	5 (1-9)	1,517 (1440-1593)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Male	3 (<6)	516 (472-561)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Female	2 (<5)	1,000 (938-1062)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	1,745 (1663-1827)	----	----	----
Male	0 (0-0)	668 (618-719)	----	----	----
Female	0 (0-0)	1,076 (1012-1141)	----	----	----
Age 50-64					
Total	0 (0-0)	525 (480-570)	----	----	----
Male	0 (0-0)	220 (191-249)	----	----	----
Female	0 (0-0)	305 (271-339)	----	----	----
Age 65+					
Total	0 (0-0)	164 (138-189)	----	----	----
Male	0 (0-0)	49 (36-63)	----	----	----
Female	0 (0-0)	114 (93-135)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Denver Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	8,951 (8766-9137)	13,303 (13076-13517)	1,510 (1395-1628)	17% (16% - 18%)	11% (10% - 12%)
Age <21					
Total	8,930 (8745-9115)	4,164 (4164-4290)	1,506 (1430-1582)	17% (16% - 18%)	36% (33% - 39%)
Male	4,686 (4552-4820)	2,423 (2326-2519)	927 (868-987)	20% (18% - 22%)	38% (34% - 42%)
Female	4,244 (4116-4372)	1,741 (1659-1823)	579 (531-626)	14% (12% - 15%)	33% (29% - 37%)
Age 21-64					
Total	21 (12-30)	7,827 (7653-8000)	4 (<8)	19% (2% - 37%)	0% (0% - 0%)
Male	11 (5-18)	3,848 (3727-3970)	2 (<5)	21% (<46%)	0% (0% - 0%)
Female	10 (4-16)	3,978 (3855-4102)	2 (<4)	18% (<41%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	1,312 (1241-1383)	----	----	----
Male	0 (0-0)	387 (349-426)	----	----	----
Female	0 (0-0)	925 (865-984)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Denver Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	8,951 (8766-9137)	13,303 (13076-13517)	1,510 (1395-16)	17% (16% - 18%)	11% (10% - 12%)
Age 0-11					
Total	5,331 (5188-5474)	2,297 (2203-2391)	833 (746-923)	16% (14% - 17%)	36% (32% - 40%)
Male	2,765 (2662-2868)	1,380 (1307-1453)	523 (452-595)	19% (16% - 22%)	38% (33% - 43%)
Female	2,566 (2467-2666)	917 (858-977)	310 (260-363)	12% (10% - 14%)	34% (28% - 40%)
Age 12-17					
Total	3,037 (2929-3145)	1,425 (1351-1499)	598 (527-668)	20% (17% - 22%)	42% (37% - 47%)
Male	1,614 (1536-1693)	803 (748-859)	358 (304-412)	22% (19% - 26%)	45% (38% - 51%)
Female	1,422 (1349-1496)	621 (572-670)	240 (195-285)	17% (14% - 20%)	39% (31% - 46%)
Age 18-20					
Total	562 (516-609)	442 (400-483)	75 (49-104)	13% (8% - 19%)	17% (11% - 24%)
Male	307 (272-341)	239 (209-270)	47 (25-69)	15% (8% - 22%)	20% (11% - 29%)
Female	255 (224-287)	202 (174-230)	28 (14-47)	11% (4% - 19%)	14% (5% - 23%)
Age 21-34					
Total	21 (12-30)	2,249 (2156-2342)	4 (2-8)	19% (2% - 37%)	0% (0% - 0%)
Male	11 (5-18)	1,112 (1046-1177)	2 (1-5)	21% (<46%)	0% (0% - 0%)
Female	10 (4-16)	1,137 (1071-1203)	2 (<4)	18% (<411%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	3,821 (3700-3942)	----	----	----
Male	0 (0-0)	1,959 (1873-2046)	----	----	----
Female	0 (0-0)	1,861 (1777-1946)	----	----	----
Age 50-64					
Total	0 (0-0)	1,757 (1675-1840)	----	----	----
Male	0 (0-0)	777 (723-832)	----	----	----
Female	0 (0-0)	980 (919-1041)	----	----	----
Age 65+					
Total	0 (0-0)	1,312 (1241-1383)	----	----	----
Male	0 (0-0)	387 (349-426)	----	----	----
Female	0 (0-0)	925 (865-984)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Jefferson Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	4,825 (4689-4962)	6,383 (6226-6538)	798 (737-860)	17% (15% - 18%)	13% (12% - 13%)
Age <21					
Total	4,822 (4686-4959)	2,281 (2281-2374)	796 (741-852)	17% (15% - 18%)	35% (32% - 38%)
Male	2,483 (2385-2581)	1,369 (1296-1441)	450 (409-492)	18% (16% - 20%)	33% (29% - 37%)
Female	2,339 (2245-2434)	912 (852-971)	346 (310-383)	15% (13% - 16%)	38% (34% - 42%)
Age 21-64					
Total	3 (<6)	3,942 (3819-4065)	2 (<5)	63% (41% - 85%)	0% (0% - 0%)
Male	3 (<6)	1,592 (1514-1671)	2 (<5)	63% (41% - 85%)	0% (0% - 0%)
Female	0 (0-0)	2,349 (2254-2444)	----	----	----
Age 65+					
Total	0 (0-0)	160 (136-185)	----	----	----
Male	0 (0-0)	47 (34-61)	----	----	----
Female	0 (0-0)	113 (92-134)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Jefferson Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	4,825 (4689-4962)	6,383 (6226-6538)	798 (737-860)	17% (15% - 18%)	13% (12% - 13%)
Age 0-11					
Total	2,713 (2611-2815)	899 (840-958)	280 (241-319)	10% (9% - 12%)	31% (27% - 36%)
Male	1,388 (1315-1461)	583 (536-631)	165 (133-199)	12% (9% - 14%)	28% (23% - 34%)
Female	1,325 (1254-1396)	316 (281-351)	114 (93-136)	9% (7% - 10%)	36% (29% - 43%)
Age 12-17					
Total	1,832 (1748-1916)	1,046 (983-1110)	451 (406-496)	25% (22% - 27%)	43% (39% - 48%)
Male	946 (886-1006)	620 (571-669)	258 (222-294)	27% (23% - 31%)	42% (36% - 48%)
Female	886 (827-944)	426 (386-466)	193 (166-220)	22% (19% - 25%)	45% (39% - 52%)
Age 18-20					
Total	277 (245-310)	335 (299-371)	66 (52-81)	24% (18% - 29%)	20% (15% - 24%)
Male	149 (125-173)	165 (140-191)	27 (16-38)	18% (10% - 26%)	16% (9% - 23%)
Female	129 (106-151)	170 (144-195)	39 (30-48)	30% (23% - 38%)	23% (18% - 29%)
Age 21-34					
Total	3 (<6)	1,586 (1508-1664)	2 (1-3)	63% (41% - 85%)	0% (0% - 0%)
Male	3 (<6)	667 (616-717)	2 (1-3)	63% (41% - 85%)	0% (0% - 0%)
Female	0 (0-0)	919 (860-978)	----	----	----
Age 35-49					
Total	0 (0-0)	1,779 (1696-1861)	----	----	----
Male	0 (0-0)	717 (664-769)	----	----	----
Female	0 (0-0)	1,062 (998-1126)	----	----	----
Age 50-64					
Total	0 (0-0)	577 (530-625)	----	----	----
Male	0 (0-0)	209 (181-238)	----	----	----
Female	0 (0-0)	368 (331-406)	----	----	----
Age 65+					
Total	0 (0-0)	160 (136-185)	----	----	----
Male	0 (0-0)	47 (34-61)	----	----	----
Female	0 (0-0)	113 (92-134)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Larimer Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,382 (2286-2477)	4,082 (3956-4201)	426 (392-461)	18% (16% - 19%)	10% (10% - 11%)
Age <21					
Total	2,377 (2281-2472)	1,440 (1440-1514)	425 (385-466)	18% (16% - 19%)	30% (27% - 32%)
Male	1,232 (1164-1301)	839 (782-896)	260 (228-292)	21% (19% - 23%)	31% (28% - 34%)
Female	1,144 (1078-1210)	601 (553-649)	165 (140-191)	14% (13% - 16%)	28% (24% - 31%)
Age 21-64					
Total	5 (1-9)	2,223 (2131-2316)	1 (<3)	18% (6% - 30%)	0% (0% - 0%)
Male	2 (<5)	894 (836-953)	1 (<3)	46% (16% - 75%)	0% (0% - 0%)
Female	3 (<6)	1,329 (1258-1401)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	418 (378-458)	---- ----	---- ----	---- ----
Male	0 (0-0)	94 (75-113)	---- ----	---- ----	---- ----
Female	0 (0-0)	325 (289-360)	---- ----	---- ----	---- ----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Larimer Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,382 (2286-2477)	4,082 (3956-4201)	426 (392-461)	18% (16% - 19%)	10% (10% - 11%)
Age 0-11					
Total	1,242 (1173-1312)	680 (629-731)	147 (124-171)	12% (10% - 14%)	22% (18% - 25%)
Male	649 (599-699)	432 (391-473)	99 (79-119)	15% (12% - 18%)	23% (18% - 28%)
Female	594 (546-642)	248 (217-279)	48 (36-62)	8% (6% - 10%)	19% (14% - 25%)
Age 12-17					
Total	984 (922-1045)	582 (535-629)	246 (223-270)	25% (23% - 28%)	42% (38% - 46%)
Male	513 (469-558)	324 (289-359)	142 (124-160)	28% (24% - 31%)	44% (38% - 50%)
Female	470 (428-513)	258 (227-290)	104 (89-119)	22% (19% - 25%)	40% (34% - 46%)
Age 18-20					
Total	151 (126-175)	178 (151-204)	32 (25-39)	21% (16% - 26%)	18% (14% - 22%)
Male	70 (54-87)	83 (65-101)	19 (14-24)	26% (19% - 34%)	22% (16% - 29%)
Female	80 (63-98)	94 (75-113)	13 (8-19)	17% (9% - 24%)	14% (8% - 20%)
Age 21-34					
Total	5 (1-9)	854 (796-911)	1 (<2)	18% (6% - 30%)	0% (0% - 0%)
Male	2 (<5)	334 (299-370)	1 (<2)	46% (16% - 75%)	0% (0% - 0%)
Female	3 (<6)	519 (474-564)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	996 (934-1058)	----	----	----
Male	0 (0-0)	408 (369-448)	----	----	----
Female	0 (0-0)	587 (540-635)	----	----	----
Age 50-64					
Total	0 (0-0)	374 (336-412)	----	----	----
Male	0 (0-0)	151 (127-175)	----	----	----
Female	0 (0-0)	223 (194-252)	----	----	----
Age 65+					
Total	0 (0-0)	418 (378-458)	----	----	----
Male	0 (0-0)	94 (75-113)	----	----	----
Female	0 (0-0)	325 (289-360)	----	----	----

**Child Welfare Caseload Overlap
 with Mental Health Programs
 Unduplicated Count (with 95%CI)
 Midwestern Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,178 (1111-1246)	1,720 (1639-1800)	278 (263-293)	24% (22% - 25%)	16% (15% - 17%)
Age <21					
Total	1,178 (1111-1246)	646 (646-696)	278 (245-311)	24% (22% - 25%)	43% (41% - 45%)
Male	565 (519-612)	349 (312-386)	140 (117-163)	25% (23% - 27%)	40% (37% - 43%)
Female	613 (565-662)	297 (263-331)	138 (115-161)	23% (21% - 24%)	47% (43% - 50%)
Age 21-64					
Total	0 (0-0)	967 (906-1028)	----	----	----
Male	0 (0-0)	358 (321-395)	----	----	----
Female	0 (0-0)	609 (560-657)	----	----	----
Age 65+					
Total	0 (0-0)	108 (87-128)	----	----	----
Male	0 (0-0)	32 (21-43)	----	----	----
Female	0 (0-0)	75 (58-92)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Midwestern Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,178 (1111-1246)	1,720 (1639-1800)	278 (263-293)	24% (22% - 25%)	16% (15% - 17%)
Age 0-11					
Total	641 (591-690)	221 (192-250)	89 (81-98)	14% (13% - 15%)	40% (36% - 44%)
Male	313 (279-348)	128 (105-150)	49 (42-56)	16% (14% - 18%)	39% (33% - 44%)
Female	328 (292-363)	94 (75-113)	40 (35-45)	12% (11% - 14%)	43% (37% - 48%)
Age 12-17					
Total	459 (417-501)	323 (288-358)	161 (150-173)	35% (33% - 38%)	50% (46% - 54%)
Male	216 (187-244)	177 (151-203)	75 (67-84)	35% (31% - 39%)	42% (37% - 47%)
Female	243 (212-273)	146 (122-169)	86 (79-93)	35% (32% - 39%)	59% (54% - 65%)
Age 18-20					
Total	79 (62-96)	102 (82-121)	27 (23-32)	35% (29% - 40%)	27% (22% - 31%)
Male	36 (24-48)	44 (31-57)	15 (12-18)	42% (34% - 51%)	35% (28% - 42%)
Female	43 (30-55)	58 (43-72)	12 (9-15)	28% (20% - 36%)	21% (15% - 26%)
Age 21-34					
Total	0 (0-0)	341 (305-377)	----	----	----
Male	0 (0-0)	112 (92-133)	----	----	----
Female	0 (0-0)	229 (199-258)	----	----	----
Age 35-49					
Total	0 (0-0)	435 (394-476)	----	----	----
Male	0 (0-0)	163 (138-188)	----	----	----
Female	0 (0-0)	273 (240-305)	----	----	----
Age 50-64					
Total	0 (0-0)	190 (163-217)	----	----	----
Male	0 (0-0)	83 (65-101)	----	----	----
Female	0 (0-0)	107 (87-128)	----	----	----
Age 65+					
Total	0 (0-0)	108 (87-128)	----	----	----
Male	0 (0-0)	32 (21-43)	----	----	----
Female	0 (0-0)	75 (58-92)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
North Range Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,339 (2244-2433)	3,128 (3018-3231)	331 (307-356)	14% (13% - 15%)	11% (10% - 11%)
Age <21					
Total	2,335 (2240-2429)	956 (956-1017)	330 (295-366)	14% (13% - 15%)	35% (32% - 37%)
Male	1,228 (1159-1296)	534 (489-579)	191 (164-218)	16% (14% - 17%)	36% (32% - 40%)
Female	1,107 (1042-1172)	422 (382-462)	139 (116-163)	13% (11% - 14%)	33% (29% - 37%)
Age 21-64					
Total	4 (<8)	1,827 (1743-1910)	1 (<3)	23% (7% - 38%)	0% (0% - 0%)
Male	4 (<8)	686 (635-737)	1 (<3)	23% (7% - 38%)	0% (0% - 0%)
Female	0 (0-0)	1,140 (1074-1207)	----	----	----
Age 65+					
Total	0 (0-0)	345 (309-381)	----	----	----
Male	0 (0-0)	105 (85-125)	----	----	----
Female	0 (0-0)	240 (210-271)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
North Range Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,339 (2244-2433)	3,128 (3018-3231)	331 (307-356)	14% (13% - 15%)	11% (10% - 11%)
Age 0-11					
Total	1,367 (1295-1440)	404 (365-444)	123 (107-140)	9% (8% - 10%)	30% (26% - 35%)
Male	717 (664-769)	240 (210-271)	74 (60-87)	10% (8% - 12%)	31% (25% - 36%)
Female	651 (601-701)	164 (139-189)	49 (40-59)	8% (6% - 9%)	30% (24% - 36%)
Age 12-17					
Total	825 (768-881)	424 (384-465)	188 (170-206)	23% (21% - 25%)	44% (40% - 49%)
Male	428 (387-468)	245 (214-275)	110 (97-124)	26% (22% - 29%)	45% (39% - 51%)
Female	397 (358-436)	180 (153-206)	77 (66-89)	20% (17% - 22%)	43% (37% - 49%)
Age 18-20					
Total	143 (119-166)	127 (105-149)	20 (15-25)	14% (10% - 18%)	16% (11% - 20%)
Male	83 (65-101)	49 (35-63)	7 (3-11)	8% (4% - 13%)	14% (6% - 22%)
Female	60 (45-75)	78 (61-95)	13 (9-17)	22% (16% - 28%)	17% (12% - 21%)
Age 21-34					
Total	4 (<8)	770 (715-824)	1 (<2)	23% (7% - 38%)	0% (0% - 0%)
Male	4 (<8)	281 (248-313)	1 (<2)	23% (7% - 38%)	0% (<1%)
Female	0 (0-0)	489 (446-532)	----	----	----
Age 35-49					
Total	0 (0-0)	765 (711-820)	----	----	----
Male	0 (0-0)	306 (272-341)	----	----	----
Female	0 (0-0)	459 (417-501)	----	----	----
Age 50-64					
Total	0 (0-0)	292 (258-325)	----	----	----
Male	0 (0-0)	99 (80-119)	----	----	----
Female	0 (0-0)	192 (165-220)	----	----	----
Age 65+					
Total	0 (0-0)	345 (309-381)	----	----	----
Male	0 (0-0)	105 (85-125)	----	----	----
Female	0 (0-0)	240 (210-271)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Pikes Peak Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	6,684 (6524-6844)	7,885 (7710-8055)	1,712 (1630-1794)	26% (24% - 27%)	22% (21% - 23%)
Age <21					
Total	6,667 (6507-6827)	3,432 (3432-3547)	1,707 (1626-1788)	26% (24% - 27%)	50% (47% - 52%)
Male	3,505 (3389-3621)	1,896 (1810-1981)	920 (861-980)	26% (24% - 28%)	49% (45% - 52%)
Female	3,161 (3051-3271)	1,537 (1460-1614)	787 (732-842)	25% (23% - 27%)	51% (48% - 55%)
Age 21-64					
Total	17 (9-25)	4,125 (3999-4251)	5 (1-9)	29% (17% - 41%)	0% (0% - 0%)
Male	13 (6-20)	1,700 (1620-1781)	4 (<8)	32% (18% - 46%)	0% (0% - 0%)
Female	4 (<8)	2,424 (2328-2521)	1 (<3)	21% (<42%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	328 (292-363)	---- ----	---- ----	---- ----
Male	0 (0-0)	87 (68-105)	---- ----	---- ----	---- ----
Female	0 (0-0)	241 (210-271)	---- ----	---- ----	---- ----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Pikes Peak Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	6,684 (6524-6844)	7,885 (7710-8055)	1,712 (1630-1794)	26% (24% - 27%)	22% (21% - 23%)
Age 0-11					
Total	3,952 (3828-4075)	1,485 (1409-1560)	817 (767-868)	21% (19% - 22%)	55% (51% - 59%)
Male	2,124 (2034-2215)	858 (800-915)	454 (412-496)	21% (19% - 23%)	53% (48% - 58%)
Female	1,827 (1744-1911)	627 (578-676)	364 (334-393)	20% (18% - 22%)	58% (53% - 63%)
Age 12-17					
Total	2,221 (2129-2314)	1,473 (1397-1548)	733 (674-792)	33% (30% - 36%)	50% (46% - 54%)
Male	1,132 (1066-1197)	809 (754-865)	396 (351-441)	35% (31% - 39%)	49% (43% - 55%)
Female	1,090 (1025-1154)	663 (613-714)	337 (299-376)	31% (27% - 35%)	51% (45% - 57%)
Age 18-20					
Total	494 (450-538)	475 (432-518)	157 (133-181)	32% (27% - 37%)	33% (28% - 38%)
Male	250 (219-281)	229 (199-258)	71 (53-88)	28% (21% - 35%)	31% (23% - 39%)
Female	244 (214-275)	247 (216-277)	86 (70-103)	35% (28% - 42%)	35% (28% - 42%)
Age 21-34					
Total	17 (9-25)	1,614 (1535-1693)	5 (3-7)	29% (17% - 41%)	0% (0% - 0%)
Male	13 (6-20)	658 (608-708)	4 (2-6)	32% (18% - 46%)	1% (<1%)
Female	4 (<8)	956 (896-1017)	1 (<2)	21% (<42%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	1,845 (1761-1929)	----	----	----
Male	0 (0-0)	789 (734-844)	----	----	----
Female	0 (0-0)	1,056 (992-1120)	----	----	----
Age 50-64					
Total	0 (0-0)	666 (615-716)	----	----	----
Male	0 (0-0)	254 (222-285)	----	----	----
Female	0 (0-0)	412 (372-452)	----	----	----
Age 65+					
Total	0 (0-0)	328 (292-363)	----	----	----
Male	0 (0-0)	87 (68-105)	----	----	----
Female	0 (0-0)	241 (210-271)	----	----	----

**Child Welfare Caseload Overlap
 with Mental Health Programs
 Unduplicated Count (with 95%CI)
 San Luis Valley Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	950 (890-1010)	1,700 (1619-1779)	233 (221-246)	25% (23% - 26%)	14% (13% - 14%)
Age <21					
Total	949 (889-1009)	672 (672-723)	233 (203-263)	25% (23% - 26%)	35% (33% - 37%)
Male	458 (416-500)	346 (310-383)	110 (90-131)	24% (22% - 26%)	32% (29% - 35%)
Female	491 (447-534)	325 (290-361)	123 (101-144)	25% (23% - 27%)	38% (35% - 40%)
Age 21-64					
Total	1 (<3)	930 (870-990)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Male	0 (0-0)	348 (312-385)	----	----	----
Female	1 (<3)	582 (534-629)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	99 (79-118)	----	----	----
Male	0 (0-0)	40 (28-53)	----	----	----
Female	0 (0-0)	58 (43-73)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
San Luis Valley Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	950 (890-1010)	1,700 (1619-1779)	233 (221-246)	25% (23% - 26%)	14% (13% - 14%)
Age 0-11					
Total	553 (507-600)	197 (170-225)	72 (65-79)	13% (12% - 14%)	36% (33% - 40%)
Male	274 (241-306)	109 (88-129)	32 (27-37)	12% (10% - 14%)	29% (24% - 34%)
Female	280 (247-313)	89 (70-107)	40 (35-45)	14% (13% - 16%)	45% (40% - 51%)
Age 12-17					
Total	358 (321-395)	363 (326-400)	152 (143-162)	43% (40% - 45%)	42% (39% - 45%)
Male	170 (144-195)	190 (163-217)	76 (69-83)	45% (41% - 49%)	40% (36% - 44%)
Female	188 (161-215)	173 (147-198)	76 (69-83)	40% (37% - 44%)	44% (40% - 48%)
Age 18-20					
Total	38 (26-50)	111 (91-132)	9 (6-12)	24% (16% - 32%)	8% (5% - 11%)
Male	15 (8-23)	47 (34-61)	2 (<4)	14% (1% - 27%)	5% (0% - 9%)
Female	22 (13-32)	64 (48-80)	7 (5-9)	30% (20% - 40%)	11% (7% - 14%)
Age 21-34					
Total	1 (<3)	322 (287-357)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Male	0 (0-0)	124 (102-146)	----	----	----
Female	1 (<3)	198 (171-226)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	437 (396-478)	----	----	----
Male	0 (0-0)	168 (143-193)	----	----	----
Female	0 (0-0)	270 (237-302)	----	----	----
Age 50-64					
Total	0 (0-0)	170 (145-196)	----	----	----
Male	0 (0-0)	57 (42-71)	----	----	----
Female	0 (0-0)	114 (93-134)	----	----	----
Age 65+					
Total	0 (0-0)	99 (79-118)	----	----	----
Male	0 (0-0)	40 (28-53)	----	----	----
Female	0 (0-0)	58 (43-73)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Southeast Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,017 (955-1080)	1,488 (1412-1562)	186 (172-201)	18% (17% - 20%)	12% (12% - 13%)
Age <21					
Total	1,017 (955-1080)	636 (636-685)	186 (159-213)	18% (17% - 20%)	29% (27% - 32%)
Male	488 (445-532)	364 (327-402)	104 (84-124)	21% (19% - 24%)	29% (26% - 32%)
Female	529 (484-574)	271 (239-304)	82 (64-100)	15% (14% - 17%)	30% (26% - 34%)
Age 21-64					
Total	0 (0-0)	740 (687-793)	----	----	----
Male	0 (0-0)	317 (283-352)	----	----	----
Female	0 (0-0)	422 (382-463)	----	----	----
Age 65+					
Total	0 (0-0)	113 (92-133)	----	----	----
Male	0 (0-0)	42 (29-55)	----	----	----
Female	0 (0-0)	70 (54-87)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Southeast Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,017 (955-1080)	1,488 (1412-1562)	186 (172-201)	18% (17% - 20%)	12% (12% - 13%)
Age 0-11					
Total	589 (541-637)	241 (211-272)	73 (65-82)	12% (11% - 14%)	30% (27% - 34%)
Male	291 (257-324)	155 (130-179)	52 (45-59)	18% (15% - 20%)	33% (29% - 38%)
Female	298 (265-332)	86 (68-105)	21 (17-26)	7% (5% - 9%)	24% (18% - 31%)
Age 12-17					
Total	374 (336-412)	314 (279-348)	106 (95-117)	28% (25% - 31%)	34% (30% - 37%)
Male	176 (150-202)	169 (143-194)	48 (40-56)	27% (23% - 32%)	29% (24% - 33%)
Female	198 (170-225)	145 (122-169)	58 (50-66)	29% (25% - 33%)	40% (34% - 45%)
Age 18-20					
Total	54 (40-69)	81 (63-98)	7 (4-10)	13% (7% - 19%)	9% (4% - 13%)
Male	21 (12-30)	41 (28-53)	4 (2-6)	19% (10% - 28%)	10% (5% - 15%)
Female	33 (22-44)	40 (27-52)	3 (1-6)	9% (<17%)	7% (<14%)
Age 21-34					
Total	0 (0-0)	285 (252-318)	----	----	----
Male	0 (0-0)	121 (99-142)	----	----	----
Female	0 (0-0)	164 (139-189)	----	----	----
Age 35-49					
Total	0 (0-0)	319 (284-354)	----	----	----
Male	0 (0-0)	143 (120-167)	----	----	----
Female	0 (0-0)	175 (149-201)	----	----	----
Age 50-64					
Total	0 (0-0)	136 (113-159)	----	----	----
Male	0 (0-0)	53 (39-68)	----	----	----
Female	0 (0-0)	83 (65-101)	----	----	----
Age 65+					
Total	0 (0-0)	113 (92-133)	----	----	----
Male	0 (0-0)	42 (29-55)	----	----	----
Female	0 (0-0)	70 (54-87)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Southwest Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,149 (1083-1216)	1,801 (1718-1884)	237 (222-252)	21% (19% - 22%)	13% (12% - 14%)
Age <21					
Total	1,149 (1083-1216)	657 (657-707)	237 (207-267)	21% (19% - 22%)	36% (34% - 38%)
Male	573 (526-620)	372 (334-410)	122 (101-144)	21% (19% - 24%)	33% (30% - 36%)
Female	576 (529-623)	285 (251-318)	115 (94-136)	20% (18% - 22%)	40% (37% - 44%)
Age 21-64					
Total	0 (0-0)	1,089 (1025-1154)	----	----	----
Male	0 (0-0)	454 (412-496)	----	----	----
Female	0 (0-0)	636 (586-685)	----	----	----
Age 65+					
Total	0 (0-0)	55 (41-70)	----	----	----
Male	0 (0-0)	15 (7-23)	----	----	----
Female	0 (0-0)	40 (28-53)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Southwest Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,149 (1083-1216)	1,801 (1718-1884)	237 (222-252)	21% (19% - 22%)	13% (12% - 14%)
Age 0-11					
Total	683 (631-734)	267 (235-299)	99 (90-109)	14% (13% - 16%)	37% (33% - 41%)
Male	346 (309-382)	160 (136-185)	54 (46-62)	16% (13% - 18%)	33% (28% - 39%)
Female	337 (301-373)	107 (87-127)	45 (40-51)	13% (12% - 15%)	42% (37% - 48%)
Age 12-17					
Total	399 (360-438)	290 (256-323)	113 (102-124)	28% (25% - 31%)	39% (35% - 43%)
Male	194 (166-221)	170 (144-195)	57 (49-66)	30% (25% - 34%)	34% (28% - 39%)
Female	205 (177-233)	120 (98-141)	56 (49-62)	27% (24% - 31%)	46% (40% - 52%)
Age 18-20					
Total	68 (52-84)	100 (80-119)	25 (21-29)	37% (31% - 43%)	25% (21% - 30%)
Male	34 (23-45)	42 (29-55)	11 (8-14)	33% (24% - 42%)	27% (20% - 34%)
Female	34 (23-45)	58 (43-73)	14 (11-17)	41% (32% - 50%)	24% (19% - 29%)
Age 21-34					
Total	0 (0-0)	426 (386-467)	----	----	----
Male	0 (0-0)	179 (153-205)	----	----	----
Female	0 (0-0)	247 (217-278)	----	----	----
Age 35-49					
Total	0 (0-0)	492 (449-536)	----	----	----
Male	0 (0-0)	192 (165-219)	----	----	----
Female	0 (0-0)	300 (266-334)	----	----	----
Age 50-64					
Total	0 (0-0)	171 (146-197)	----	----	----
Male	0 (0-0)	83 (65-101)	----	----	----
Female	0 (0-0)	88 (70-106)	----	----	----
Age 65+					
Total	0 (0-0)	55 (41-70)	----	----	----
Male	0 (0-0)	15 (7-23)	----	----	----
Female	0 (0-0)	40 (28-53)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Spanish Peaks Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,651 (2550-2752)	5,089 (4950-5226)	708 (669-748)	27% (25% - 28%)	14% (13% - 15%)
Age <21					
Total	2,646 (2545-2747)	1,871 (1871-1956)	708 (655-760)	27% (25% - 28%)	38% (36% - 40%)
Male	1,290 (1219-1360)	1,064 (1000-1128)	373 (335-410)	29% (27% - 31%)	35% (32% - 38%)
Female	1,356 (1284-1428)	807 (752-863)	335 (299-371)	25% (23% - 27%)	41% (38% - 45%)
Age 21-64					
Total	5 (1-9)	2,989 (2882-3096)	1 (<2)	13% (<37%)	0% (0% - 0%)
Male	1 (<3)	1,220 (1151-1288)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Female	4 (<8)	1,769 (1687-1852)	1 (<2)	16% (<46%)	0% (0% - 0%)
Age 65+					
Total	0 (0-0)	229 (200-259)	----	----	----
Male	0 (0-0)	73 (56-89)	----	----	----
Female	0 (0-0)	157 (132-181)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
Spanish Peaks Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	2,651 (2550-2752)	5,089 (4950-5226)	708 (669-748)	27% (25% - 28%)	14% (13% - 15%)
Age 0-11					
Total	1,431 (1357-1505)	697 (646-749)	256 (231-280)	18% (16% - 20%)	37% (33% - 40%)
Male	718 (666-771)	393 (355-432)	140 (121-159)	19% (17% - 22%)	36% (31% - 40%)
Female	712 (660-765)	304 (270-338)	116 (101-131)	16% (14% - 18%)	38% (33% - 43%)
Age 12-17					
Total	1,018 (955-1080)	884 (826-943)	388 (359-417)	38% (35% - 41%)	44% (40% - 47%)
Male	475 (433-518)	518 (473-562)	203 (182-224)	43% (38% - 47%)	39% (35% - 44%)
Female	542 (497-588)	367 (329-404)	184 (165-204)	34% (30% - 38%)	50% (45% - 56%)
Age 18-20					
Total	197 (170-225)	289 (256-323)	64 (52-76)	33% (26% - 39%)	22% (18% - 27%)
Male	96 (77-115)	153 (128-177)	29 (22-37)	31% (22% - 39%)	19% (14% - 25%)
Female	102 (82-121)	137 (114-159)	35 (26-44)	34% (25% - 44%)	26% (19% - 32%)
Age 21-34					
Total	5 (1-9)	1,133 (1067-1199)	1 (<2)	13% (<37%)	0% (0% - 0%)
Male	1 (<3)	417 (377-457)	0 (0-0)	0% (0% - 0%)	0% (0% - 0%)
Female	4 (<8)	716 (663-768)	1 (<2)	16% (<46%)	0% (0% - 0%)
Age 35-49					
Total	0 (0-0)	1,320 (1249-1392)	----	----	----
Male	0 (0-0)	578 (531-625)	----	----	----
Female	0 (0-0)	742 (689-796)	----	----	----
Age 50-64					
Total	0 (0-0)	536 (490-581)	----	----	----
Male	0 (0-0)	225 (195-254)	----	----	----
Female	0 (0-0)	311 (277-346)	----	----	----
Age 65+					
Total	0 (0-0)	229 (200-259)	----	----	----
Male	0 (0-0)	73 (56-89)	----	----	----
Female	0 (0-0)	157 (132-181)	----	----	----

Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
West Central Region, CO: 1999

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,168 (1101-1235)	1,936 (1849-2020)	233 (217-249)	20% (19% - 21%)	12% (11% - 13%)
Age <21					
Total	1,167 (1100-1234)	695 (695-747)	232 (202-262)	20% (18% - 21%)	33% (31% - 36%)
Male	582 (535-630)	396 (357-435)	127 (105-150)	22% (20% - 24%)	32% (29% - 35%)
Female	585 (537-632)	299 (265-333)	105 (85-125)	18% (16% - 20%)	35% (31% - 39%)
Age 21-64					
Total	1 (-1-3)	1,142 (1075-1208)	1 (-1-3)	100% (85% - 114%)	0% (0% - 0%)
Male	1 (-1-3)	462 (419-504)	1 (-1-3)	100% (85% - 114%)	0% (0% - 0%)
Female	0 (0-0)	680 (629-731)	----	----	----
Age 65+					
Total	0 (0-0)	99 (79-118)	----	----	----
Male	0 (0-0)	36 (24-48)	----	----	----
Female	0 (0-0)	62 (47-78)	----	----	----

**Child Welfare Caseload Overlap
with Mental Health Programs
Unduplicated Count (with 95%CI)
West Central Region, CO: 1999**

	Number Served		Caseload Overlap		
	Child Welfare	Mental Health	Number	% of CW	% of MH
Total	1,168 (1101-1235)	1,936 (1849-2020)	233 (217-249)	20% (19% - 21%)	12% (11% - 13%)
Age 0-11					
Total	655 (604-705)	246 (216-277)	89 (79-98)	14% (12% - 15%)	36% (32% - 40%)
Male	332 (296-368)	160 (135-185)	57 (49-65)	17% (15% - 20%)	36% (31% - 41%)
Female	323 (287-358)	86 (68-105)	31 (26-37)	10% (8% - 11%)	36% (30% - 42%)
Age 12-17					
Total	419 (379-459)	327 (292-363)	117 (105-129)	28% (25% - 31%)	36% (32% - 39%)
Male	200 (173-228)	186 (159-213)	61 (52-70)	30% (26% - 35%)	33% (28% - 38%)
Female	218 (189-247)	141 (118-165)	56 (48-64)	26% (22% - 29%)	40% (34% - 46%)
Age 18-20					
Total	94 (75-113)	122 (100-143)	27 (22-32)	28% (23% - 34%)	22% (18% - 26%)
Male	50 (36-64)	50 (36-64)	10 (6-13)	19% (12% - 26%)	19% (12% - 26%)
Female	44 (31-57)	72 (55-88)	17 (13-21)	39% (30% - 48%)	24% (18% - 29%)
Age 21-34					
Total	1 (<3)	414 (374-454)	1 (1-1)	100% (85% - 114%)	0% (0% - 0%)
Male	1 (<3)	162 (137-187)	1 (1-1)	100% (85% - 114%)	1% (1% - 1%)
Female	0 (0-0)	252 (221-283)	----	----	----
Age 35-49					
Total	0 (0-0)	514 (469-558)	----	----	----
Male	0 (0-0)	212 (183-240)	----	----	----
Female	0 (0-0)	302 (268-336)	----	----	----
Age 50-64					
Total	0 (0-0)	214 (185-243)	----	----	----
Male	0 (0-0)	88 (70-106)	----	----	----
Female	0 (0-0)	126 (104-148)	----	----	----
Age 65+					
Total	0 (0-0)	99 (79-118)	----	----	----
Male	0 (0-0)	36 (24-48)	----	----	----
Female	0 (0-0)	62 (47-78)	----	----	----

APPENDIX ONE

DATA SETS

Data Sets

Mental Health

1. Community Services, Medicaid Capitated
33,315 Records, 584 records with missing data,
32,731 Useable records
29,830 (± 278) People
2. Community Services, State Funds
45,831 Records, 72 records with missing data
45,759 Useable records
44,381 (± 389) Unduplicated People
3. Inpatient Services, Medicaid Fee-For-Service
729 Records, 1 record with missing data
728 Useable records
704 (± 6) Unduplicated People
4. Inpatient Services, Non-Medicaid
2,339 Records, 0 records with missing data
2,339 Usable records
2,259 (± 18) Unduplicated People
5. Medicaid Fee-For-Service: Community and Inpatient Services
62,900 Records, 0 Records with missing data
62,900 Usable records
5,047 (± 30) Unduplicated People

Statewide Mental Health Total

145,114 Records, 657 records with missing data
144,457 Usable records
77,497 (± 841) Unduplicated People

Child Welfare

57,223 Records, 1 records with missing data
57,222 Usable records
50,673 (± 1738) Unduplicated People

Data files provided by the WICHE Mental Health Program under contract with Colorado Mental Health Services. Medicaid records are paid claims with multiple claims per person. Mental Health services records are person records with some duplication. Records with missing data do not include valid date of birth and/or gender codes. Usable records include valid date of birth and gender codes.

APPENDIX TWO

PROBABILISTIC POPULATION ESTIMATION

Probabilistic Population Estimation

Estimates of the number of people represented in the data sets that describe episodes of inpatient mental health care but do not contain a unique person identifier were derived using a statistical procedure based on the solution to the classic mathematical “coupon collector” problem. The coupon collector problem was to determine the number of randomly distributed collector cards that needed to be acquired in order to complete a set. Feller’s solution was based on the fact that the probability of adding a new card to the collection changes whenever a new card is added. In the problem being addressed here, the number of unique individuals is analogous to the number of collector cards necessary to complete the set, and the number of dates of birth is analogous to the number of different collector cards in the collection.

In order to measure the number of people represented in a data set that does not contain a unique person identifier, a probabilistic determination is applied. The original data set is aggregated into a data set which consists of gender/year-of-birth records. Each record includes the number of birth days for the given gender/year-of-birth cohort. The number of people necessary to produce the observed number of birthdays is calculated using the following formula:

$$P_j(l) = \sum_{i=1}^l \frac{365}{365 - i}$$

where “ P_j ” is the population determination for cohort “ j ”, and “ l ” is the number of days observed in the year. Confidence intervals for the estimate may be calculated using a similar procedure. Measurement of the total number of people represented in the complete data set and the confidence intervals for this estimate are obtained by combining the results for every year of birth and gender cohort in the original data set.

This statistic, known as Probabilistic Population Estimation, allows researchers to answer a basic question that has frequently remained unanswered because existing data sets lack unique person identifiers: “How many people are served by the organization or service system?” The ability to measure (with known confidence intervals) this basic parameter of service systems is particularly valuable where issues of confidentiality or organizational complexity limit the availability of unique identifiers. Probabilistic Population Estimation has been tested in data sets from state hospitals, correctional programs, and child protective services that contained unique client identifiers. Analysis of data sets found that confidence intervals include the true value at the predicted rate. (A verification table using data from this project follows in Appendix II to this document.)

A simple and powerful measure of access to services has been obtained by dividing the number of people who receive services (utilization) by the number of people who have a potential need for the services (prevalence). The results of this calculation have been referred to as the Access Ratio. Where unduplicated counts of the number of people served are available (e.g., people covered by a single insurer) utilization can be directly measured without the use of probabilistic population estimation.

Related Reading

- A Global Measure of Access to Mental Health Services for a Managed Care Environment. *Journal of Mental Health Administration*, Summer 1997. (Pandiani, Banks, & Gauvin)
- A Methodology for Probabilistically Estimating Caseload Size and Overlap. The Evaluation Center @HSRI, January 1999 (Banks & Pandiani)
- A Risk Adjusted Measure of Hospitalization Rates for Evaluating Community Mental Health Program Performance. *Administration and Policy in Mental Health*, March, 1999. (Pandiani, Banks, Schacht, & Gauvin)
- After Children's Services: A Longitudinal Study of Significant Life Events. *Journal of Emotional and Behavioral Disorders*, Forthcoming (Banks, Pandiani, & Schacht)
- Age and Mortality Among Problem Drinkers. *Addiction*. August 2000 (Banks, Pandiani, Schacht, & Gauvin)
- Approaches to Risk Adjusting Outcome Measures Applied to Criminal Justice Involvement after Community Service. *Journal of Behavioral Health Services and Research*. Forthcoming (Banks, Pandiani, & Bramley)
- Bed Closures and Incarceration Among Users of VA Behavioral Health Services in Upstate New York. *Mental Health Services and Research*, October 2000 (Rosenheck, Banks, Pandiani, & Hoff)
- Caseload Segregation/Integration: A Measure of Shared Responsibility for Children and Adolescents. *Journal of Emotional and Behavioral Disorders*, Summer 1999 (Banks, Pandiani, & Schacht)
- Consumer Satisfaction and Treatment Outcomes: Dissatisfaction with Mental Health Services and Incarceration after Treatment. *Administration and Policies in Mental Health*, Forthcoming (Pandiani, Schacht, & Banks)
- Does Closing Inpatient Beds in One Public Mental Health System Result in Increased Use of Inpatient Services in Other Systems? *Psychiatric Services*, Forthcoming (Rosenheck, Banks, & Pandiani)
- Elevated Risk of Being Charged with a Crime for People with a Severe and Persistent Mental Illness. *Justice Research and Policy*, Fall 2000 (Pandiani, Banks, Clements, & Schacht)
- Personal Privacy vs. Public Accountability: A Technological Solution to an Ethical Dilemma. *Journal of Behavioral Health Services and Research*, November 1998. (Pandiani, Banks, & Schacht)
- Practice Patterns and Hospitalization Rates: A Statewide Program Evaluation. *Administration and Policy in Mental Health*, September, 1998. (Banks, Pandiani, Gauvin, Reardon, Schacht, & Zovistoski)
- Probabilistic Population Estimation of the Size and Overlap of Data Sets Based on Date of Birth. *Statistics in Medicine*, Forthcoming (Banks & Pandiani).
- The Use of State and General Hospitals for Inpatient Psychiatric Care. *American Journal of Public Health*, March 1998. (Banks & Pandiani)
- Utilization of Local Jails and General Hospitals by State Psychiatric Center Patients. *The Journal of Behavioral Health Services and Research*, November 2000 (Banks, Stone, Pandiani, Cox, & Morchauser)
- Using Incarceration Rates to Measure Mental Health Program Performance. *Journal of Behavioral Health Services and Research*, August 1999. (Pandiani, Banks, & Schacht)