

COMPdata Monthly Monitor - Montana
April/May 2006
Pediatric Care

INTRODUCTION

Asthma, bronchitis, developmental disorders, seizures, and pregnancy are just a few of many topics that seriously affect the health of children and adolescents in the U.S. Emerging issues such as obesity, diabetes, and hypertension complicate an already difficult task. In the U.S. as a whole, care for children and adolescents accounts for about 18 percent of all hospital stays and about 9 percent of total hospital charges ¹ As Table 2 below shows, the pediatric inpatient population in Montana has decreased 4.5% since 2002, while the rate of the overall state population of inpatients has grown 4.4%, as shown in Table 1.

COMPdata STATISTICS ON PEDIATRIC CARE INPATIENTS IN MONTANA HOSPITALS

(Note: All of the following inpatient statistics exclude newborns – Major Diagnostic Category 15. Table 1 also excludes obstetric cases, Major Diagnostic Category 14.)

Table 1 - Total Montana Inpatients
Excludes MDCs 14 & 15

	2002	2005	% Change 2002 to 2005
	Discharges	Discharges	
Total Montana Patients	82,448	86,051	4.4

Table 2 - Total Montana Inpatients Ages 1-17
Excludes MDC 15

	2002	2005	% Change 2002 to 2005
	Discharges	Discharges	
Total Montana Patients Ages 1-17	4,722	4,510	-4.5%

Table 3 – Top MDC’s for Pediatric Inpatients by Age Group
(Excludes MDC 15)

MDC	Ages 1-4	Ages 5-11	Ages 12-17	Total
04 D&D OF THE RESPIRATORY SYSTEM	577 (47.3%)	172 (17.9%)	122 (5.2%)	871 (19.3%)
19 MENTAL DISEASES & DISORDERS	3 (0.2%)	104 (10.8%)	598 (25.7%)	705 (15.6%)
06 D&D OF THE DIGESTIVE SYSTEM	98 (8.0%)	173 (18.0%)	230 (9.9%)	501 (11.1%)
14 PREGNANCY, CHILDBIRTH & THE PUERPERIUM	0 (0.0%)	0 (0.0%)	390 (16.7%)	390 (8.6%)
08 D&D MUSCULOSKELTL SYSTEM CONNECT TISSUE	42 (3.4%)	102 (10.6%)	198 (8.5%)	342 (7.6%)
01 D&D OF THE NERVOUS SYSTEM	89 (7.3%)	82 (8.5%)	161 (6.9%)	332 (7.4%)
10 ENDOCRINE, NUTRITIONAL & METABOLIC D&D	94 (7.7%)	89 (9.3%)	84 (3.6%)	267 (5.9%)
03 D&D OF THE EAR, NOSE, MOUTH & THROAT	133 (10.9%)	54 (5.6%)	58 (2.5%)	245 (5.4%)
21 INJURIES,POISONGS,TOXIC EFFECT OF DRUGS	29 (2.4%)	28 (2.9%)	122 (5.2%)	179 (4.0%)
09 D&D SKIN, SUBCUTANEOUS TISSUE & BREAST	43 (3.5%)	32 (3.3%)	52 (2.2%)	127 (2.8%)
All Other	111 (9.1%)	126 (13.1%)	314 (13.5%)	551 (12.2%)
Total	1,219 (100%)	962 (100%)	2,329 (100%)	4,510 (100%)

Table 4 – Top DRG’s for Pediatric Inpatients by Age Group
(Excludes MDC 15)

DRG	Ages 1-4	Ages 5-11	Ages 12-17	Total
430 PSYCHOSES	0 (0.0%)	88 (9.1%)	493 (21.2%)	581 (12.9%)
091 SIMPLE PNEUMONIA & PLEURISY AGE 0-17	297 (24.4%)	65 (6.8%)	39 (1.7%)	401 (8.9%)
098 BRONCHITIS & ASTHMA AGE 0-17	231 (18.9%)	76 (7.9%)	37 (1.6%)	344 (7.6%)
373 VAGINAL DELIVERY W/O COMPLIC DIAGNOSES	0 (0.0%)	0 (0.0%)	216 (9.3%)	216 (4.8%)
167 APPENDECTOMY W/O COMPLIC	1 (0.1%)	70 (7.3%)	95 (4.1%)	166 (3.7%)
184 ESPHGITIS,GE,MISC DIG DIS AGE 0-17	66 (5.4%)	35 (3.6%)	46 (2.0%)	147 (3.3%)
298 NUTRIT & MISC METAB DISOR AGE 0-17	78 (6.4%)	44 (4.6%)	22 (0.9%)	144 (3.2%)
451 POISON&TOXIC EFFECTS DRUGS AGE 0-17	17 (1.4%)	10 (1.0%)	97 (4.2%)	124 (2.7%)
026 SEIZURE & HEADACHE AGE 0-17	55 (4.5%)	28 (2.9%)	35 (1.5%)	118 (2.6%)
295 DIABETES AGE 0-35	11 (0.9%)	40 (4.2%)	56 (2.4%)	107 (2.4%)
All Other	756 (62.0%)	456 (47.4%)	1136 (48.8%)	2,348 (52.1%)
Total	1,219 (100%)	962 (100%)	2,329 (100%)	4,510 (100%)

- Tables 3 and 4 illustrate the diagnosis trends for adolescents as they age. The younger cohorts are dominated by bronchitis, asthma, and pneumonia, while later cohorts have a higher incidence of mental diseases and pregnancies.
- The most frequent Major Diagnostic Category, shown in Table 3, for ages 1-4 was Diseases and Disorders of the Respiratory System, while the most frequent MDC for ages 5-11 is Diseases and Disorders of the Digestive System. For ages 12-17, the largest category was Mental Diseases & Disorders.
- Examining Table 4 reveals the most frequent diagnoses for ages 1-4 were Simple Pneumonia & Pleurisy, 24.2%, and Bronchitis & Asthma, 18.9%, compared to Psychoses, 9.1%, and Bronchitis & Asthma, 7.9% for ages 5-11. For ages 12-17, the most frequent diagnosis by far was Psychoses, 21.2%.

Table 5 – Pediatric Care Patients
 2005 Inpatient Discharges - (Excludes MDC 15)

Table 5 – Part I Admission and Discharge Patterns		Ages 1-4	Ages 5-11	Ages 12-17
		Total N = 1,219 (%)	Total N = 962 (%)	Total N = 2,329 (%)
Admission Source	Emergency Room	47.2	53.0	52.1
	Hospital Transfer	3.8	2.4	4.6
	Physician Referral	44.8	42.1	37.0
	Clinic Referral	3.6	1.8	3.7
	Other	0.6	0.7	2.6
Admission Type	Emergency	35.8	32.7	29.5
	Urgent	40.1	45.6	43.0
	Elective	23.8	20.7	25.8
	Other	0.3	1.0	1.7
Discharge Status	Routine to Home	97.3	94.2	87.4
	To Home Health	0.7	0.9	0.7
	To Another Institution	0.2	2.2	5.6
	Other	1.8	2.7	6.3
Hospital Location	Other Urban	32.1	41.9	44.4
	Rural	67.9	58.1	55.6

Table 5 – Part II Patient Characteristics		Ages 1-4	Ages 5-11	Ages 12-17
		Total N = 1,219 (%)	Total N = 962 (%)	Total N = 2,329 (%)
Gender	Female	43.1	43.2	61.3
	Male	56.9	56.8	38.7
Primary Payer	Medicare	0.1	1.9	1.7
	Commercial Ins	56.2	69.3	67.6
	Medicaid	40.9	21.5	21.5
	Other	2.8	7.3	8.2
Avg Length of Stay	2.3	3.0	4.4	
Avg Total Charge	\$4,897	\$7,449	\$10,747	

Table 5 (Parts I and II) provides statistics that explore in more detail the characteristics of Montana pediatric patients who were discharged in 2005. There were 1,219 inpatients age 1-4, 962 inpatients age 5-11, and 2,329 inpatients age 12-17. Some additional highlights found in Table 5 are:

- More males than females are patients in age groups 1-4 and 5-11, but for ages 12-17 that trend reverses, with more females being admitted. This is due to the pregnancies that occur in this age group.
- Commercial insurance and Medicaid are the main payers in each age group, with Medicaid accounting for one-fifth to two-fifths of all patients.
- Higher age groups are associated with longer stays and higher average payments.

MONTANA STATISTICS FROM COMPdata

All of the Montana patient statistics were derived from MHA's COMPdata. We encourage you to use COMPdata to examine your hospital community area(s) regarding pediatric care so that you might better understand the impact of these patients on the care and treatment of your patient population and the resources needed to diagnose, treat, and manage pediatric cases.

The COMPdata graphing feature can be utilized to examine in a pictorial fashion trends in your state and hospital community area(s) regarding pediatric care. Click here to obtain a map chart that illustrates the distribution of pediatric cases by county:

<http://www.compdatainfo.com/news/monitor/montana/pedsgraph.pdf>.

ADDITIONAL INFORMATION

If you would like to develop the COMPdata reports that will provide similar statistics for your hospital or community, a training tool is available to guide you through the process. The training tool may be requested by e-mailing compdata@ihastaff.org. For additional assistance on using the COMPdata system, contact the COMPdata Hotline at compdata@ihastaff.org.

For questions and suggestions regarding the *COMPdata Monthly Monitor*, contact: Tim Shaver, Health Information Analyst at tshaver@ihastaff.org.

COMPdata Monthly Monitor - Montana
April 2006
Pediatric Care

APPENDIX

Pediatric Care

Of the 36 million hospital stays in the U.S. in 2000, about 18 percent, or 6.3 million, were for children and adolescents under age 17.²

Pediatric Patients

- Adolescent pregnancy accounts for 3 percent of all pediatric hospitalizations.²
- Children and adolescents 1 to 17 years old represent 24 percent of the population but only 5 percent of hospital stays nationwide.²
- Pneumonia, asthma, and acute bronchitis account for 1 in 5 hospitalizations for pediatric illness in the U.S.²
- About 7 percent of pediatric hospital stays are for mental disorders.²
- Appendectomy is the most common surgical procedure performed on children and adolescents, occurring over 238 times per day.²

SOURCES FOR ADDITIONAL INFORMATION

For Hospitals

Topics including professional education, research, and public policy are elucidated with a focus on pediatric issues at the American Academy of Pediatrics web site. The home page is located at <http://www.aap.org>. Current features include a mumps outbreak in the Midwest and TV-Turnoff Week.

The Journal of Pediatric Care provides abstracts of all recent articles and a searchable database of past issues for members at <http://journals.elsevierhealth.com/periodicals/ymph>.

Health care professionals seeking training and certification in pediatrics will find a helpful resource provided by the American Board of Pediatrics at <http://www.abp.org>.

For Patients and the Community

Kidsgrowth is a web site devoted information to assist parents and teens in dealing with common health issues. Topics included on the site include an adult height calculator, tips for avoiding substance abuse, and an interactive car seat selector. The main page can be found at <http://www.kidsgrowth.com/index2.cfm>.

American Baby magazine has a guide to childhood diseases can be found at <http://www.americanbaby.com/ab/pediatrichealth>.

The American Academy of Pediatrics web site features Parenting Corner at <http://www.aap.org/parents.html>. There is a quick access section on the right-hand bar that allows users to move quickly to whatever topic interests them, as well as more general information on emerging topics in pediatric health care.

REFERENCES

1. McCaig LF, Burt CW. National Hospital Ambulatory Medical Care Survey: 2003 emergency department summary. National Center for Health Statistics, 2005.
2. Owens, PL Thompson J, Elixhauser A. Ryan K. Care of Children and Adolescents in U.S. Hospitals. Agency for Healthcare Research and Quality; 2003.