

John Day/ Grant County Service Area

Health Utilization Data
November 2012



Economic Impact of Health Care in the Community



- The Flow of Money
- Recapturing Dollars
- Community Economic Infrastructure
- Follow the Jobs – Types of Jobs
- Direct and Indirect Spending
- Forward and Backward Linkages through Hospital
- Follow the Spending of Health Care Organizations and their Employees
- Local Control
- Social Value / Peace of Mind

Where do People Go for Hospital Care?—Market Share Methodology



- **Comp Data is a comprehensive (state-mandated) hospital reporting system.**
- **Data shows origin of patient by zip code, hospital admitted to, reason for admission, and payor source among other data.**
- **Local Utilization is critical to health system survival**
- **OR hospital inpatient data is from 7/11—7/12**
- **OR outpatient surgery data is from 7/11—7/12**

Where do the Predictions Come From?



- Normative data for hospital inpatients, inpatient procedures, outpatient procedures, emergency room visits all come from the most recent annual surveys conducted by the National Center for Health Statistics (NCHS) and published in *National Health Statistics Reports* (NHSR). These are national norms based on actuarial experiences.
- *NCHS has calculated that people in the **WEST** use health services **17.1% LESS** than the average for the country as a whole.*

COMMUNITY HEALTH IMPROVEMENT PARTNERSHIP

Estimates of Inpatients

John Day Service Area

		<15	15-44	45-64	65+			
	Population:	1,155	2,106	2,566	1,594		7421	
	ICD-9-CM	<15	15-44	45-64	65+	Total	Actual	
Infectious and Parasitic Diseases	001-139	2	4	10	24	40	16	
Neoplasms	140-239	1	4	22	28	55	23	
Endocrine, Nutritional, Immunity	240-279	3	6	18	32	59	29	
Diseases of the Blood and Blood Forming Organs	280-289	-	2	4	10	16	4	
Mental Disorders	290-319	3	21	25	10	59	6	
Diseases of the Nervous System and Sense Organs	320-389	2	3	7	12	25	6	
Diseases of the Circulatory System	390-459	1	7	61	152	221	100	
Diseases of the Respiratory System	460-519	10	6	26	69	111	64	
Diseases of the Digestive System	520-579	4	14	35	52	104	63	
Diseases of the Genitourinary System	580-629	1	9	18	40	68	35	
Complications of Pregnancy, Childbirth	630-676		8			8	64	
Diseases of the Skin and Subcutaneous Tissue	680-709		3	8	10	21	22	
Diseases of the Musculoskeletal System & Connective Tissue	710-739	1	5	24	37	66	75	
Congenital Anomalies	740-759	-	0	1	1	2	3	
Conditions Originating in the Perinatal Period	760-779	3				3	5	
Symptoms, Signs, and Ill-Defined Conditions	780-799	1	1	2	2	5	34	
Injury and Poisoning	800-999	4	13	26	46	89	63	
Supplementary Classifications	V01-V82	1	71	7	17	97	70	
						TOTAL Inpatients	1,049	682

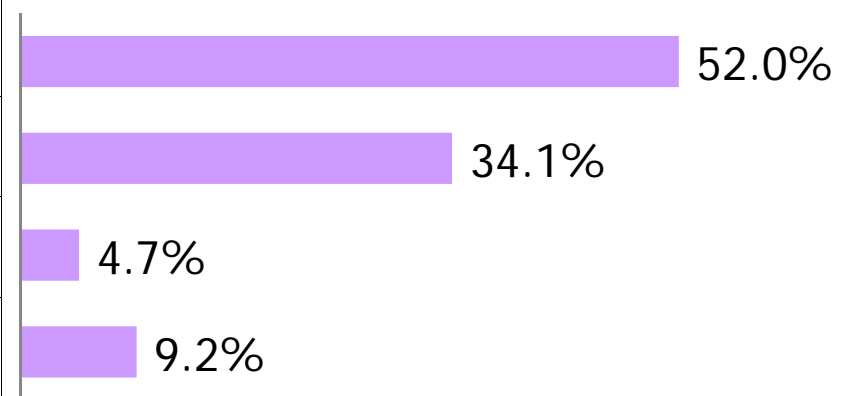
2007 National Hospital Discharge Survey, National Health Statistics Reports No. 29, Oct 26, 2010

Source: CompData (7/1/2011 - 7/1/2012)

John Day Service Area Inpatient Discharges per Year



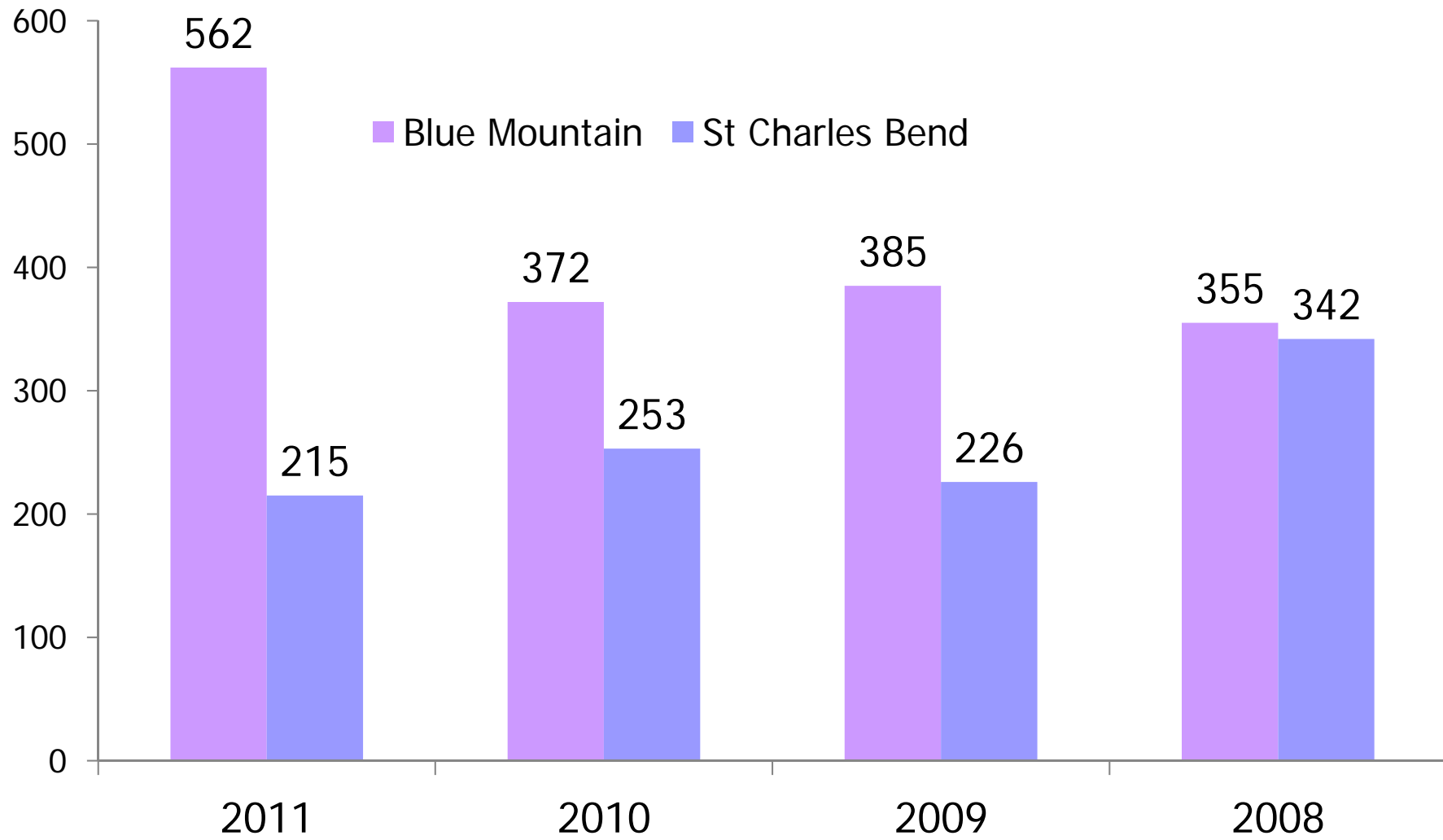
Used Blue Mountain	357
Used St Charles Medical Bend	234
Used OHSU	32
Other Hospitals (<2.5% ea.)	63
Actual # of Discharges	686
Predicted # of Discharges	1049
- Western Adjustment (-17.1%) =	870
Difference between actual	184



- Market Share is the percentage of all discharges from the primary service area that are captured in the local hospital.

- 69 of the IP Discharges at Bend were Transfers from a hospital. 66 were Clinic referrals.

John Day Service Area Inpatient Discharges per Year (2008-2011)





Inpatient Procedures

- Once someone is admitted to a hospital, they may have one or several types of procedure(s) done on them. The following slides estimate numbers of principal inpatient procedures for our planning units.
- NOT all procedures are surgeries, ie. obstetrical procedures/births, transfusions, angiocardiographies, diagnostic procedures

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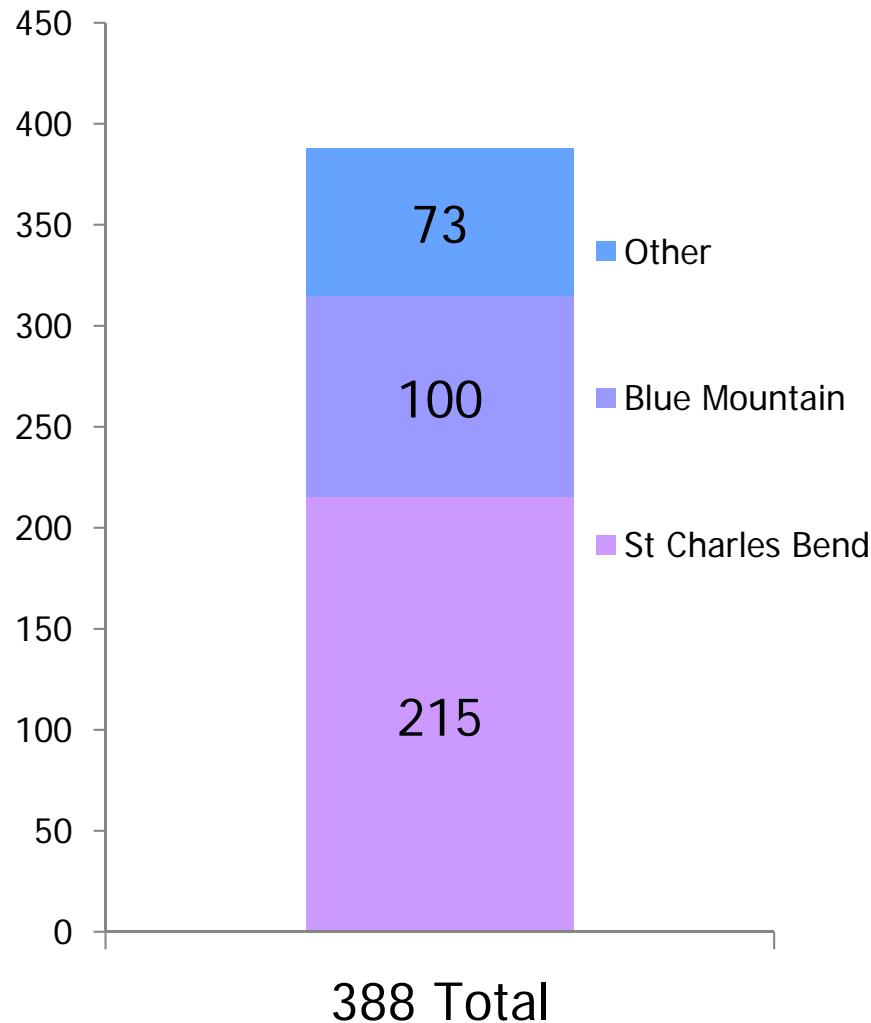
Estimates of ALL (principal and non-principal) Inpatient Procedures

John Day Service Area

		<15	15-44	45-64	65+	
	Population:	1,155	2,106	2,566	1,594	
	ICD-9-CM	<15	15-44	45-64	65+	Total
Operations on the Nervous System	01-05	4	6	11	15	35
Operations on the Endocrine System	06-07	*	1	2	1	4
Operations on the Eye	08-16	0	0	1	1	2
Operations on the Ears	18-20	0	0	*	*	1
Operations on the Nose, Mouth, and Pharynx	21-29	1	2	2	2	7
Operations on the Respiratory System	30-34	0	3	12	23	37
Operations on the Cardiovascular System	35-39	0	12	84	148	245
Operations on the Hemic and Lymphatic System	40-41	*	1	5	6	12
Operations on the Digestive System	42-54	4	21	58	95	179
Operations on the Urinary System	55-59	0	4	12	17	33
Operations on the Male Genital Organs	60-64	0	0	3	4	8
Operations on the Female Genital Organs	65-71	0	17	19	8	44
Obstetrical Procedures	72-75	0	117	*	*	118
Operations on the Musculoskeletal System	76-84	3	16	52	71	141
Operations on the Integumentary System	85-86	*	8	17	18	43
TOTAL Procedures						909

7421

Actual Inpatient PRINCIPAL Procedures from John Day SA/Year



- 56.6%, or 388 of the 686 total inpatients from John Day Service Area had a principal procedure (this is usually 60+%)
- 25.8%, or 100 of the principal procedures were done at Blue Mountain.

Top ICD Principal Procedures for John Day SA Inpatients



	NUMBER OF PROCEDURES	AVERAGE CHARGE	AVERAGE AGE
741 Low Cervical CD	25	\$18,108	30
8154 Total Knee Replacement	22	\$46,918	66
7359 Manual Assisted Delivery	19	\$8466	27
8151 Total Hip Replacement	16	\$47,543	64
0309 Spinal Canal Expl NEC	15	\$18,682	67
9904 Packed Cell Transfusion	14	\$16,309	74
0066 PTCA	13	\$54,917	68
TOTAL	388	\$25,498	55

Low Intensity Diagnostic Related Groupings



- Study Used to Estimate Usage of Limited Service Hospitals
- Conducted by Rural Health Research Center – University of Minnesota
- Title: Service Limitation Options for Limited Service Rural Hospitals, March 1993



Low Intensity DRG Criteria

- **DRG's Meet the Following Conditions**
 - 72 Hour Service
 - No Surgical Cases
 - No Obstetrical Cases
 - Primary Care Providers
 - Basic Lab Services (urine, hemoglobin, blood glucose, stool specimen, pregnancy test)
 - No Blood Banking
 - Basic Radiology (no flouroscopy)
 - ie. allergic reactions, poisoning, kidney infections, chest pain, concussion

Economic Impact of John Day SA Low-Intensity MS-DRG Outmigration



	John Day Service Area
Total Low Intensity MS-DRGs	262 (38.2% of all 686 John Day SA Inpatients—usually 25-30%)
Served @ Blue Mountain	187 (71.4% of Low Intensity Inpatients)

	Went instead to St Charles Bend
1. Number Served at...	43 (16.4% of Low Intensity Inpatients)
2. Avg Length of Stay	3.8 days (0.96 more than L-I Inpatients at Blue Mountain)
3. Avg Charge per Day	\$6,090 (\$2943 more than L-I Inpatients at Blue Mountain)
1 x 2 x 3 =	\$995,106
Collectible? @ 65% =	\$646,819

Top Low Intensity MS-DRGs for John Day Service Area



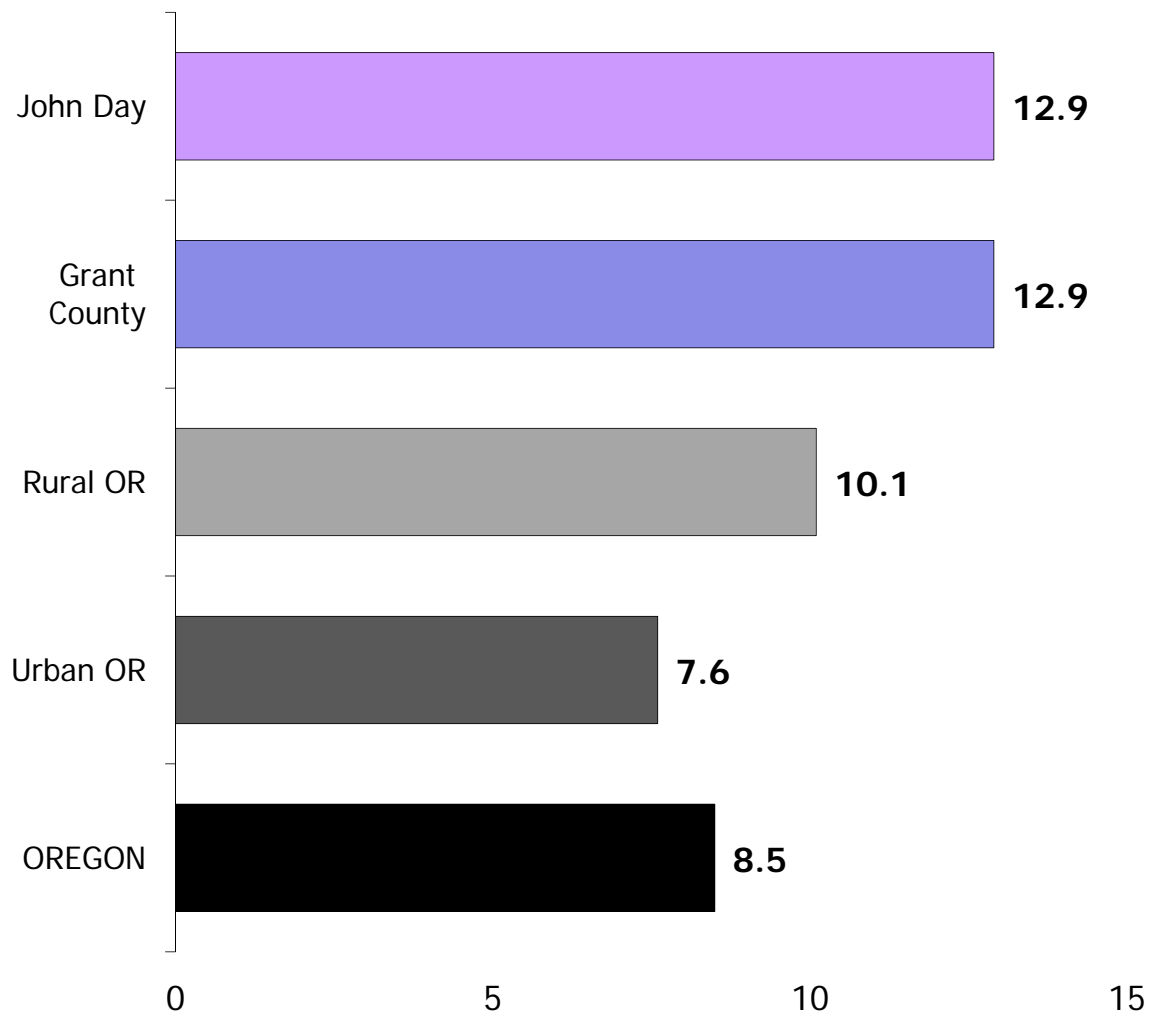
	NUMBER OF CASES	AVERAGE CHARGE	AVERAGE AGE
392 Esphgitis, GE, Misc Dig Dis >17 w/o MCC	23	\$10,114	64
603 Cellulitis w/o MCC	18	\$9,800	65
194 Simple Pneumonia w/CC	16	\$12,248	74
192 Chronic Obs Pulm Disease w/o CC/MCC	15	\$10,911	70
195 Simple Pneumonia w/o CC/MCC	12	\$7,847	61
743 Uter&ADNX PX/Non-Malignancy w/o CC/MCC	12	\$17,422	48
293 Heart Failure & Shock w/o CC/MCC	11	\$5,206	83
TOTAL	262	\$13,074	63

Ambulatory Sensitive Conditions



- These are reasons for admission to a hospital which are deemed “avoidable” if the patient had made appropriate use of the primary care system, ie. asthma, diabetes, pneumonia
- Created by John Billings Ph.D. United Hospital Fund of New York

Ambulatory Care Sensitive Conditions per 1000 Population



- 2008-2010 average per year
- People over age 65 are 8 times more likely to have avoidable hospitalizations than those under 65.

Top ACSC Principal ICD Diagnoses for John Day Service Area



PRINCIPAL ACSC ICD DIAGNOSIS	NUMBER OF CASES	AVERAGE CHARGE	AVERAGE AGE
486 Pneumonia Organism NOS	23	\$9,982	67
49121 OCB w/Exacerbation	20	\$10,682	73
TOTAL	108	\$10,397	62



Outpatient Surgery Rates

- This is also known as Ambulatory Surgery, which “refers to surgical and nonsurgical procedures performed on an ambulatory basis in a hospital or freestanding center’s operating rooms, and other specialized rooms.”
- Nationally, only 57.2% of ambulatory surgery visits are hospital-based
- Western states have 32% fewer visits compared to the country as a whole
- Non-Metro areas have 14.5% fewer visits compared to the country as a whole

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Estimates of Ambulatory Surgery Visits per Year

John Day Service Area

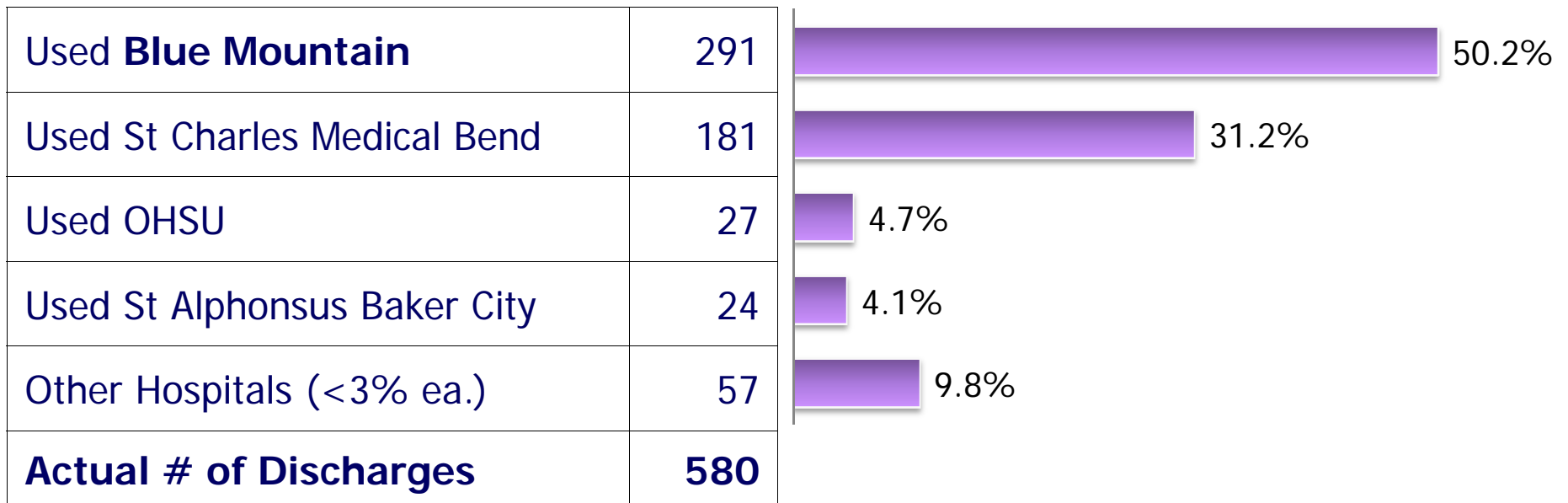
	<15	15-44	45-64	65-74	75+
Population:	1,155	2,106	2,566	911	683

7421

	ICD-9-CM	<15	15-44	45-64	65-74	75+	Total
Infectious and Parasitic Diseases	001-139	-	-	1	-	-	1
Neoplasms	140-239	1	6	51	37	22	117
Endocrine, Nutritional, Immunity	240-279	-	2	4	2	-	7
Diseases of the Nervous System and Sense Organs	320-389	14	7	43	63	60	187
Diseases of the Circulatory System	390-459	-	4	30	17	10	61
Diseases of the Respiratory System	460-519	11	7	7	4	1	30
Diseases of the Digestive System	520-579	6	27	92	60	36	221
Diseases of the Genitourinary System	580-629	2	19	36	17	10	85
Complications of Pregnancy, Childbirth	630-676		5				5
Diseases of the Skin and Subcutaneous Tissue	680-709	1	4	8	-	2	15
Diseases of the Musculoskeletal Sys & Connective Tissue	710-739	1	22	70	29	18	140
Congenital Anomalies	740-759	3	2	-	-	-	5
Symptoms, Signs, and Ill-Defined Conditions	780-799	-	7	18	9	5	39
Injury and Poisoning	800-999	3	13	29	13	6	65
Supplementary Classifications	V01-V82	1	13	48	24	14	101
Misc Diseases	280- 319,760- 779	-	1	3	2	2	8
TOTAL Estimated Ambulatory Surgery Visits							1,086

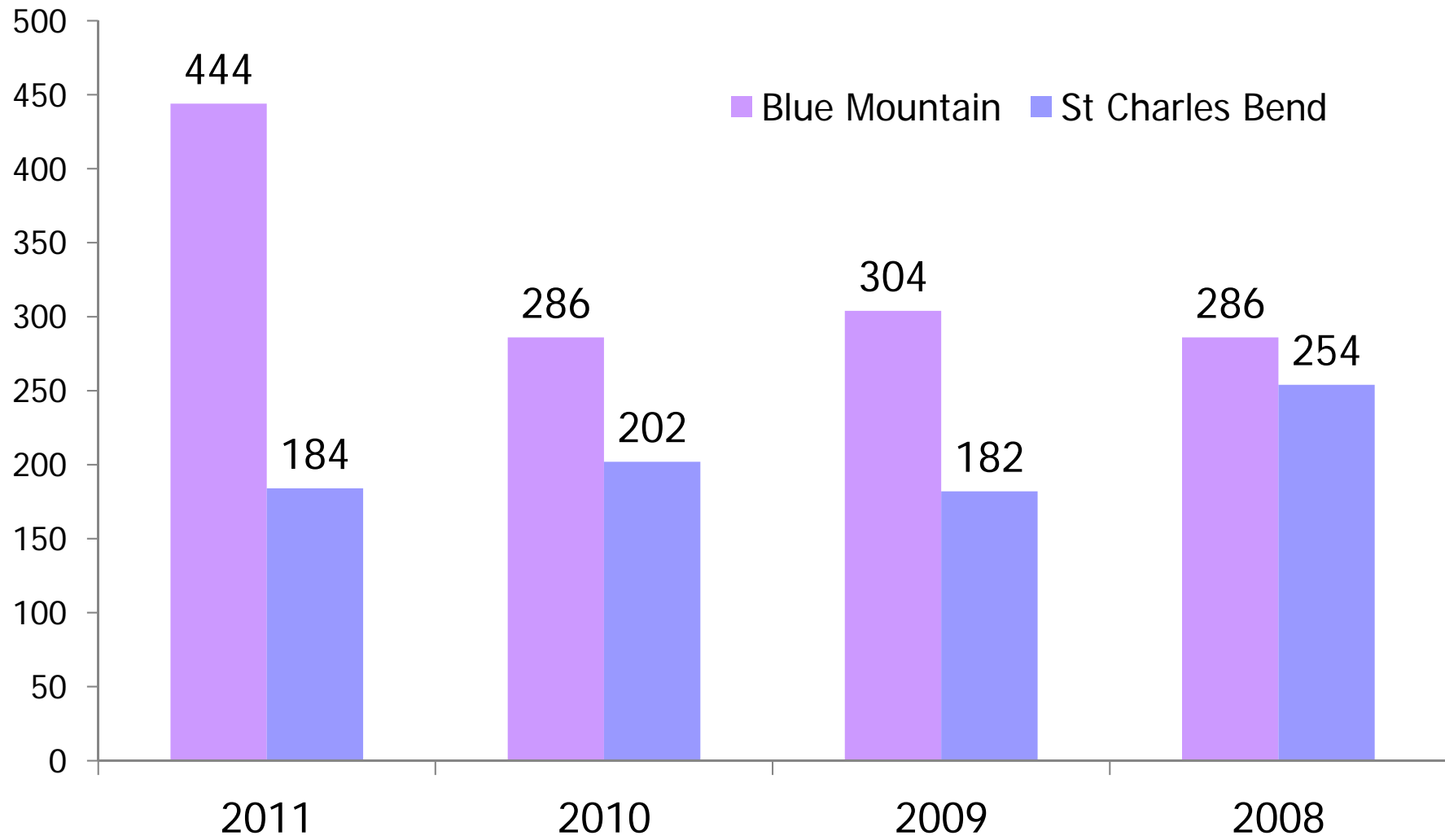
Ambulatory Surgery in the United States, 2006; National Health Statistics Reports *No. 11*, Sept 4, 2009

John Day SA Outpatient Surgery Discharges per Year



- 170 of the Outpatient Surgery Discharges at Bend were from Clinic Referrals.

John Day SA Outpatient Surgery Discharges per Year (2008-2011)





Outpatient Surgery Procedures

- Each discharge can have multiple procedures
- Procedure estimates are for ALL (not just principal) procedures
- Nationally, only 57.7% of ambulatory surgery procedures are hospital-based
- Western states have 29.4% fewer procedures compared to the country as a whole
- Non-Metro areas have 15.3% fewer procedures compared to the country as a whole

COMMUNITY HEALTH IMPROVEMENT PARTNERSHIP

Estimates of ALL (principal and non-principal) Ambulatory Procedures per Year

John Day Service Area

	<15	15-44	45-64	65-74	75+
Population:	1,155	2,106	2,566	911	683

7421

	ICD-9-CM	<15	15-44	45-64	65-74	75+	Total
Operations on the Nervous System	01-05	0	15	48	21	18	101
Operations on the Eye	08-16	2	4	57	110	103	277
Operations on the Ear	18-20	16	2	2	2	2	24
Operations on the Nose, Mouth, and Pharynx	21-29	20	16	21	8	4	68
Operations on the Respiratory System	30-34	1	1	6	4	3	15
Operations on the Cardiovascular System	35-39	0	3	21	14	12	49
Operations on the Digestive System	42-54	0	47	221	141	73	482
Operations on the Urinary System	55-59	0	6	21	18	13	59
Operations on the Male Genital Organs	60-64	3	2	5	5	3	18
Operations on the Female Genital Organs	65-71	0	27	24	5	2	59
Operations on the Musculoskeletal System	76-84	6	44	127	42	18	236
Operations on the Integumentary System	85-86	3	21	49	21	13	106
Diagnostic and Therapeutic Procedures	87-99	5	24	86	48	32	195
Miscellaneous Other Procedures	06-07,40-41,72-75	0	1	5	4	2	11
TOTAL Estimated Ambulatory Procedures							1699

Ambulatory Surgery in the United States, 2006; National Health Statistics Reports *No. 11*, Sept 4, 2009

Top CPT Principal Procedures for John Day SA Outpatient Surgeries

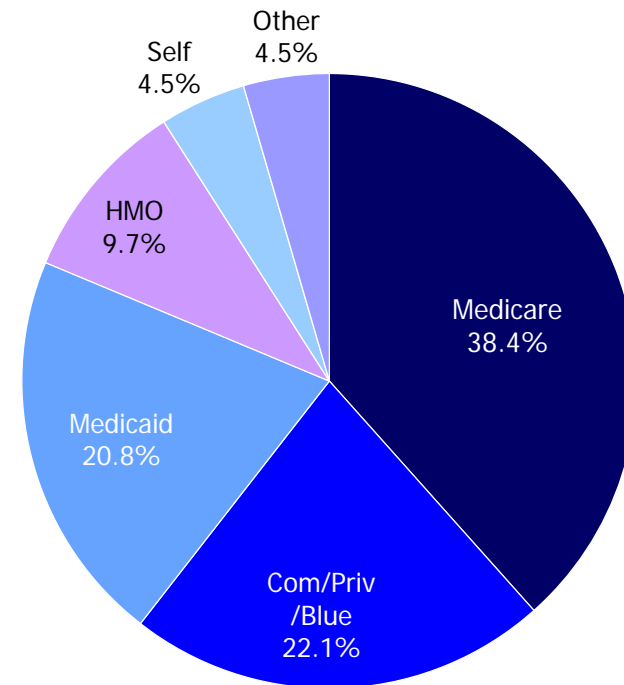
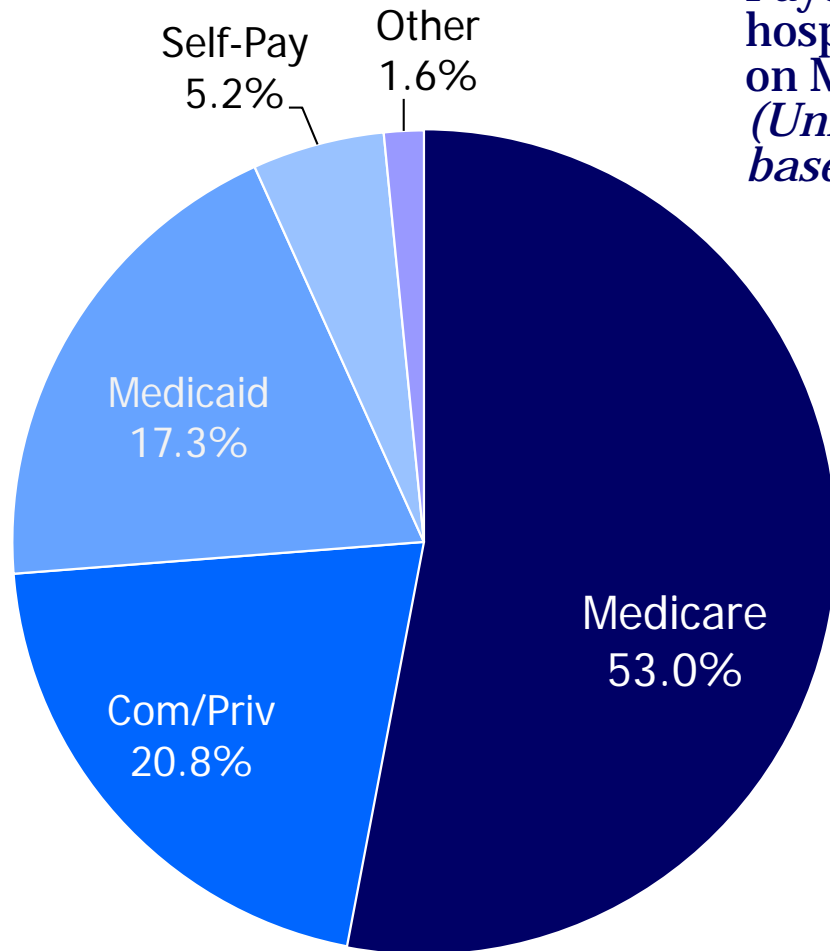


	NUMBER OF PROCEDURES	AVERAGE CHARGE	AVERAGE AGE
45380 Colonoscopy and Biopsy	76	\$3402	60
45378 Diagnostic Colonoscopy	57	\$2972	58
66984 Cataract Surg w/IOL 1 Stage	46	\$3198	77
45385 Lesion Removal Colonoscopy	39	\$4641	65
43239 Upper GI Endoscopy Biopsy	23	\$1915	64
29881 Knee Arthroscopy/Surgery	11	\$2666	56
TOTAL	580	\$6207	61

Blue Mountain Inpatient Payer Mix (from All Areas)

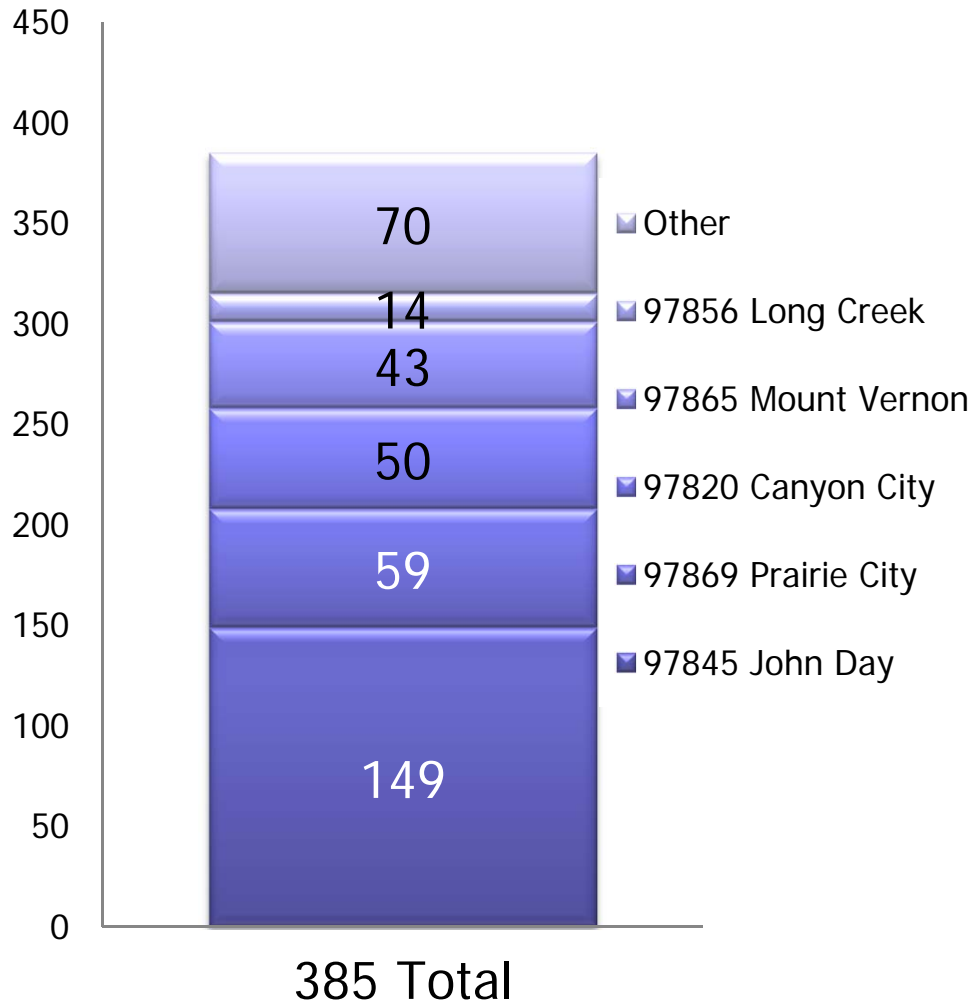


- Payer mix is crucial to the financial health of a hospital. You do not want to be overly dependent on Medicare and Medicaid as sources of revenue. *(Unless you are a CAH–In that case you get cost-based reimbursement for Medicare and Medicaid)*



PAYER MIX OF ALL OREGON INPATIENTS

Origin of All Inpatient Cases at Blue Mountain Hospital



- Blue Mountain gets 38.7% of its inpatient volume from the John Day ZIP Code: 97485

Estimates of Emergency Room Visits

John Day Service Area

Age	Population		Rate per 100	# of ER Visits
MALES				
<15	581	x	39.3	228
15-24	459	x	37.7	173
25-44	617	x	36.5	225
45-64	1271	x	31.7	403
65-74	458	x	36.3	166
>74	307	x	56.4	173
FEMALES				
<15	574	x	33.9	195
15-24	388	x	54.0	210
25-44	642	x	45.4	291
45-64	1295	x	32.7	423
65-74	453	x	36.0	163
>74	376	x	65.7	247
TOTALS	7,421			2,898

National Hospital Ambulatory Medical Care Survey: 2007 Emergency Department Summary,
National Health Statistics Reports No. 26, Aug 6, 2010

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Estimates of Non-Motor Vehicle Ambulance Calls

John Day Service Area

Age	Population	# of Calls per 1,000	Total Calls in Each Age Group
0 to 4	349	21.4	7
5 to 9	361	8.1	3
10 to 14	445	13.6	6
15 to 19	562	25.5	14
20 to 24	285	29.9	9
25 to 34	487	30.4	15
35 to 44	772	32.7	25
45 to 54	1200	39.0	47
55 to 64	1366	57.3	78
65 to 74	911	99.8	91
75 +	683	264.4	181
	7421	TOTAL	476

Calls per 1000 based on average of 1999-2001 actual non-motor vehicle ambulance calls in Non-Metro counties only. Illinois Department of Public Health, Division of Emergency Medical Services and Highway Safety (EMS) data reporting system.