

# **Scope of Outpatient Practice – Report**

**RRNET 2011**

### Study Collaborators

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## OBJECTIVE

The Residency Research Network of Texas (RRNeT) provides care for a unique patient population, with large proportions of low income, uninsured, and underrepresented minority people. RRNeT consists of 10 training sites where the focus of the visit may vary somewhat from standard private practice. These differences can bias our research findings on a variety of content areas, as they limit generalizability to other populations. Our differences are also our largest asset, in that we have access to patient populations that may be unavailable to other clinical investigators.

The following are the outcomes of a NAMCS-like visit survey conducted in our RRNeT practices to characterize accurately the patient population and the services we deliver to them. *The primary purpose of this study was to describe outpatient visits to the practices of the Residency Research Network of Texas.* Through careful documentation of visits across 9 clinical sites, we were able to describe the demographics of the RRNeT patient population, their reasons for visits, common diagnoses, medicines and other services ordered, and referral patterns.

## RESEARCH PLAN

**Study Setting and Sample** *The Residency Research Network of Texas (RRNeT)* is a collaboration of ten family medicine residency programs located in Austin, Corpus Christi, Dallas, Fort Worth, Garland, Harlingen, Lubbock, McAllen, and San Antonio (2 programs). About 100 family physician faculty and 300 family medicine residents see more than 300,000 patient visits per year. 55% of patients are Latino; 25% of them speak Spanish only. Approximately 42% of our patients have government sponsored health insurance, 17% have private insurance, whereas 27% are self-pay or utilize the county plan.

This was a study of family medicine *visits* in outpatient settings. These included visits with any patient (or patient's parent or guardian) who consents to documentation of the visit for research purposes. Study patients included infants, children, adolescents, adults, and seniors.

This was a cross-sectional survey of patients and primary care visits. The study used two data collection tools, namely a visit survey and a patient survey. The *visit survey* recorded patient demographics, including age, gender, race/ethnicity, and health insurance status. The survey also collected information pertaining to patient reasons for visits, common diagnoses, medicines and other services ordered and referral patterns. The patient survey was comprised of a set of questions about the patients' access to electronic communication such as cell phones and home computers.

### **Procedure**

In this study, research investigators randomly selected visits *by physician*. During the one month data collection period (May and June 2011), investigators identified all physicians (family physician or family medicine residents) working in each half-day clinic session. For each session they randomly selected one physician. Medical students shadowed the selected doctor during that session, observing and documenting all visits, for approximately 100 visits per site. Selected patients were also asked to complete the patient survey.

## RESULTS

<b>TX Region</b>		<b>No. of Patients</b>	
1. North Texas		126 (16%)	
2. Central Texas		280 (35%)	
3. West Texas		99 (13%)	
4. South Texas		288 (36%)	
		<b>Total No. of Patients 793</b>	
<b>City</b>		<b>No. of Patients</b>	
1. Austin		93	
2. Corpus Christi		98	
3. Fort Worth		100	
4. Garland		26	
5. Harlingen		92	
6. Lubbock		99	
7. McAllen		98	
8. Christus Santa Rosa Hospital		97	
9. UTHSCSA		90	
<b>Gender</b>		<b>No. of Patients</b>	
1. Male		263 (33%)	
2. Female		524 (66%)	
<b>Age Categories</b>		<b>No. of Patients</b>	
1. Babies (2 years)		22 (3%)	
2. Children (age 3 to 10)		34 (4%)	
3. Teens (age 11 - 20)		48 (6%)	
4. Adults (21 - 39)		189 (24%)	
5. Middle Age (40 – 64)		345 (44%)	
6. Seniors (65 - 74)		81 (10%)	
7. Ages 75 and above		49 (6%)	
<b>Average Age</b>			
Mean	44.70	Standard Deviation	20.86
Median	48.00	Range	0 - 97
<b>Ethnicity</b>		<b>No. of Patients</b>	
1. Hispanic		437 (55%)	
2. Caucasian		211 (27%)	
3. African American		96 (12%)	
4. Asian		32 (4%)	
5. Pacific Islander		1	
6. American Indian		2	
7. Mixed Ethnicity		5	
<b>Insurance Plan</b>		<b>No. of Patients</b>	

Private Insurance	172 (22%)		
Medicare	141 (18%)		
Medicaid or CHIP/SCHIP	214 (27%)		
County Plan	164 (21%)		
Self Pay	58 (7%)		
Workers Comp	2		
Other Health Insurance	34 (4%)		
Unknown	78 (10%)		
Other Types	9 (8.7%)		
<b>Type of Health Care Provider</b>		<b>Providers per Patient</b>	<b>Patient Type</b>
Faculty Physician	294 (37%)	0 Providers -- 5 (1%)	Established 706 (89%)
Resident Physician	501 (63%)	1 Provider- 654 (83%)	New Patient 81 (10%)
Medical Student	24 (3%)	2 Providers 127 (16%)	
Physician Assistant	0	3 Providers -- 7 (1%)	
RN/LPN	101 (13%)		
Nurse Practitioner or Midwife	9 (1%)		
<b>Blood Pressure</b>			
Diastolic Blood Pr Diastolic > 90	<i>Mean = 75.5</i> Percent 25 <sup>th</sup> % = 66 = 58 Patients (8% of Patients)	50 <sup>th</sup> % = 74	75 <sup>th</sup> % = 81
Systolic Blood Pr Systolic > 140	<i>Mean=126</i> Percent 25 <sup>th</sup> % = 110 = 128 Patients (17% of Patients)	50 <sup>th</sup> % = 120	75 <sup>th</sup> % = 135
<b>Adult Height/Weight</b>			
Height	<i>Mean = 65 in</i>	<i>Median = 64 in</i>	<i>Standard Dev. = 4.3in</i>
Weight	<i>Mean = 183lbs</i>	<i>Median = 178lbs</i>	<i>Standard Dev. = 59lbs</i>
<b>BMI (Adults &gt; 21)</b>			
<i>Underweight BMI &lt; 18.5 10(2%)</i>	<i>Normal Weight BMI = 18.5-24.9 106(16%)</i>	<i>Over-weight BMI = 25.0-29.9 133(20%)</i>	<i>Obese BMI &gt; 30 249(38%)</i>
<b>Child BMI (ages 2-20)</b>			
<i>Underweight Less than 5% BMI 10(10%)</i>	<i>Normal Weight 24(23%)</i>	<i>Over-weight 85% BMI or More 33(32%)</i>	<i>Obese 95% BMI or More 13(13%)</i>
<b>Pregnant</b>			
Number of Pregnant Patients 39 (6%)			
<b>Major Reason for Visit</b>			
New Problem (< 3 months from onset)		290 (37%)	
Chronic Problem (routine)		241 (30%)	
Chronic Problem, flare up		70 (9%)	

Pre/Post Surgery		15 (2%)	
Preventative Care(e.g., screening exams)		167 (21%)	
<b>No. 1 Reason for Patient Visit</b>		<b>No. 2 Reason for Patient Visit</b>	
1. Followup, chr condition	142(18%)	1. No Additional Reasons	332 (42%)
2. Review test results	55 (7%)	2. Followup, chr condition	53 (7%)
3. Medication refill/check	50 (6%)	3. Arthritis or joint pains	34 (4%)
4. General Medical Exam	43 (5%)	4. Medication refill/check	28 (4%)
5. Prenatal Exam	38 (5%)	5. Stomach or abdominal pain, cramps, spasms	16 (2%)
6. Back Symptoms	36 (5%)	6. Muscle aches, pains	14 (2%)
7. Well baby exam	35 (4%)	7. Review test results	14 (2%)
8. Arthritis or joint pains	28 (4%)	8. Headache	13 (2%)
9. Stomach or Abdominal pain, cramps, spasms	28 (4%)	9. Hypertension	13 (2%)
10. Well woman exam	21 (3%)	10. Nasal congestion	13 (2%)
11. Hypertension	21 (3%)	11. Back Symptoms	11 (1%)
12. Muscle aches, pains	19 (2%)	12. Cough	11 (1%)
13. Cough	15 (2%)	13. Fatigue	11 (1%)
14. Post-operative visit	14 (2%)	14. Knee Symptoms	11 (1%)
15. Urinary Symptoms	14 (2%)	15. Skin Rash	10 (1%)
16. Throat Symptoms	13 (2%)	16. Chest Symptoms	9 (1%)
17. Gyn problems or pregnancy test	13 (2%)	17. Anxiety	8 (1%)
18. Knee symptoms	13 (2%)	18. Depression/Sadness	8 (1%)
19. Chest symptoms	11 (1%)		
20. Anxiety	9 (1%)		
21. Headache	9 (1%)		
22. Nasal Congestion	9 (1%)		
<b>No. 3 Reason for Patient Visit</b>		<b>Muscle &amp; Skeletal Problems</b>	
1. No Additional Reasons	527 (67%)	Arthritis	167 (21%)
2. Medication refill/Check	16 (2%)	Back Problems	55 (7%)
3. Arthritis or Joint Pains	11 (1%)	Knee Problems	25 (3%)
4. Skin Rash	10 (1%)	Muscle Aches	38 (5%)
5. Fatigue	9 (1%)	Fracture or Sprain	15 (2%)
6. Hypertension	8 (1%)	Chronic Pain	100 (13%)
7. Stomach or abdominal pain, cramps, spasms	8 (1%)		
<b>Mental Health</b>		<b>Substance Abuse</b>	
Mental Health Issues	180 (23%)	Substance Abuse Issues	6 (1%)
<b>Patient's Problem List</b>		<b>Patients Problem List or DX</b>	
Arthritis	85 (11%)	Arthropathy	136 (17%)
Asthma	74 (9.3%)	Diabetes	217 (27%)
Cancer in situ	4 (0.5%)	Hypertension	341 (43%)
Cancer local	11 (1.4%)	Chronic Pain	47 (6%)
Cancer Regional	9 (1%)	Depression	148 (19%)

Cancer distant	4 (0.5%)	GI Problems	83 (11%)
Cancer unknown	4 (0.5%)	Hyperlipidemia	218 (28%)
Cerebrovascular Disease	13 (1.6%)	Diabetes, hypertension & high lipids	118 (15%)
Congestive Heart Failure	16 (2%)		
Chronic Kidney Disease	17 (2%)		
COPD	31 (4%)		
Depression	145 (18%)		
Diabetes	207 (26%)		
Hyperlipidemia	214 (27%)		
Hypertension	333 (42%)		
Ischemic Heart Disease	16 (2%)		
Obesity	153 (19%)		
Osteoporosis	24 (3%)		
None of the Above	198 (25%)		
<b>Cancer on Problem List</b>			
Any Cancer	29 (3.7%)		
<b>Tobacco Use</b>			
1. Never used tobacco	371 (47%)		
2. Previous user, not current	86 (11%)		
3. Current user	123 (16%)		
4. unknown	204 (26%)		
<b>Diagnostic Screen</b>		<b>Diagnostic Screen Type</b>	
Diagnostic Screen Ordered	612 (77%)	Breast Diagnostic Exam	23 (3%)
Diagnostic Screen Not Ordered	181 (23%)	Pelvic	38 (5%)
		Rectal	6 (0.8%)
		Skin	58 (7.3%)
		Depression	13 (1.6%)
<b>Imaging</b>		<b>Imaging Type</b>	
Imaging Ordered	145(18%)	X-ray	51 (6.4%)
Imaging Not Ordered	648 (82%)	Bone Mineral Density	1 (0.1%)
		CT Scan	10 (1.3%)
		Echocardiogram	4 (0.5%)
		Other Ultrasound	31 (3.9%)
		Mammography	34 (4.3%)
		MRI	23 (2.9%)
<b>Blood Tests</b>		<b>Blood Test Type</b>	
Blood Tests Ordered	274 (35%)	CBC	125 (16%)
Blood Tests Not Ordered	519 (66%)	Electrolytes	99 (13%)
		Glucose	144 (18%)
		HgbA1C	103 (13%)
		Lipids/Cholesterol	113 (14%)
		PSA prostate	16 (2%)



Scope			
Scope Ordered	10 (1.3%)	Colonoscopy	10 (1.3%)
Tests		Type of Tests	
Tests Ordered	166 (21%)	Chlamydia Tests	13 (1.6%)
		EKG/ECG	12 (1.5%)
		HPV/DNA	1
		Pap Test	24 (3%)
		Pregnancy Test	11 (1.4%)
		Spirometry/Pulmonary Function	3 (0.4)
		Urinanalysis	67 (8.4%)
Primary Diagnosis		Secondary Diagnosis	
1. Diabetes	87 (11%)	1. Hypertension	63 (8%)
2. Hypertension	61 (8%)	2. Diabetes	41 (5%)
3. Arthropathies & related disorders	55 (7%)	3. GI problems	32 (4%)
4. Normal pregnancy	43 (5%)	4. Athropathies & related disorders	27 (3%)
5. GI disorders	34 (4%)	5. Pain	23 (3%)
6. Exam, well child	30 (4%)	6. Chronic Pain	17 (2%)
7. Chonic pain	27 (3%)	7. Depression	17 (2%)
8. Pain	25 (3%)	8. Skin dx	15 (2%)
9. Skin disorders	23(3%)	9. Allergic rhinitis	14 (2%)
10. Followup visit/exam	21(3%)	10. Hyperlipidemia	13 (2%)
11. Acute upper respiratory infections	19 (2%)	11. Anxiety	11 (1%)
12. Exam, gynecological	18 (2%)	12. Mental illness not anxiety or depression	9 (1%)
13. Depression	16 (2%)	13. Infections, gynecological	8 (1%)
14. Exam, General medical	16 (2%)	14. Osteoporosis	8 (1%)
15. Infections, Urinary trac	15 (2%)	15. Thyroid	
16. Thyroid	14 (2%)	16. Heart disease not ischemic	6 (1%)
17. Allergic rhinitis	13 (2%)	17. Obesity	5 (1%)
18. Other infections	13 (2%)	18. Bone fracture or sprain	5 (1%)
19. Infections, gynecology	11 (1%)	19. Follow up visit/exam	
20. Anxiety	10 (1%)		
21. Hyperlipidemia	10 (1%)		
22. Mental illness, not anxiety or depression	10 (1%)		
23. Bone fracture or sprain	9 (1%)		
Tertiary Diagnosis			
1. Hypertension	31 (4%)		
2. Hyperlipidemia	27 (3%)		
3. GI problems	22 (3%)		
4. Diabetes	14 (2%)		
5. Arthropathies & related disorders	12 (2%)		
6. Pain	11 (1%)		
7. Skin disease	9 (1%)		
8. Thyroid disease	8 (1%)		

9. Depression	7 (1%)		
10. Osteoporosis	5 (1%)		
11. Allergic rhinitis	4 (1%)		
12. Chronic pain	4 (1%)		
13. Mental illness not depression or anxiety	4 (1%)		
14. Other infections	4 (1%)		
<b>Health Education</b>		<b>Health Education Type</b>	
Received Health Education	311 (39%)	Alcohol/Drug Abuse	21 (3%)
Did not Receive Health Education	482 (61%)	Asthma Education	10 (1%)
		Diet/Nutrition	130 (16%)
		Exercise	94 (12%)
		Growth & Development	19 (2%)
		Injury Prevention	42 (5%)
		Stress Management	33 (4%)
		Tobacco Use/Exposure	38 (5%)
		Weight Reduction	50 (6%)
		Medicines	10 (1%)
		Disease Management	21 (3%)
		Behavioral & Mental Health	12 (2%)
		Diet, Exercise or Weight Reduction Counseling	177 (22%)
<b>Alternative Treatments</b>			
Complementary/Alternative Med	5 (1%)		
Durable Medical Equipment	14 (2%)		
Physical Therapy	32 (4%)		
Speech Occupational Therapy	2		
Psychotherapy	11 (1%)		
Other Mental Health Counsel	2		
Excision of Tissue	2		
Orthopedic Care	3		
Wound Care	8 (1%)		
<b>New Medications</b>		<b>Continuing Medications</b>	
<b>0</b>	467 (60%)	<b>0</b>	195 (25%)
<b>1</b>	212(27%)	<b>1</b>	120 (15%)
<b>2</b>	79(10%)	<b>2</b>	70 (9%)
<b>3</b>	28(4%)	<b>3</b>	49 (6%)
<b>4</b>	5(1%)	<b>4</b>	45(6%)
<b>5</b>	2	<b>5</b>	55(7%)
		<b>6</b>	46(6%)
		<b>7</b>	54(7%)
		<b>8</b>	36(5%)
		<b>9</b>	34(4%)
		<b>10</b>	16(2%)

		<b>11</b>	19(2%)
		<b>12</b>	12(2%)
		<b>13</b>	15(2%)
		<b>14</b>	11(1%)
		<b>15</b>	4(1%)
<b>Average New Medications Per Patient</b>		<b>Average Continuing Medications</b>	
<i>Mean = .61 Median = 0</i>		<i>Mean = 4 Median = 3</i>	
<i>Standard Dev. = .88 Range = 0 - 5</i>		<i>Standard Dev. = 4.2 Range = 0 - 20</i>	
<b>Prescription Medications</b>		<b>Over the Counter Medications</b>	
<b>0</b>	245 (31%)	<b>0</b>	566 (71%)
<b>1</b>	130 (16%)	<b>1</b>	166 (21%)
<b>2</b>	66 (8%)	<b>2</b>	46 (6%)
<b>3</b>	48 (6%)	<b>3</b>	8 (1%)
<b>4</b>	60 (8%)	<b>4</b>	5 (1%)
<b>5</b>	47 (6%)	<b>5</b>	1
<b>6</b>	47 (6%)	<b>6</b>	1
<b>7</b>	35 (4%)		
<b>8</b>	31 (4%)		
<b>9</b>	26 (3%)		
<b>10</b>	17 (2%)		
<b>11</b>	12 (2%)		
<b>12</b>	5 (1%)		
<b>13</b>	10 (1%)		
<b>14</b>	5 (1%)		
<b>15</b>	9 (1%)		
<b>Average No. of Prescription Medications</b>		<b>Average No. of OTC Medications</b>	
<i>Mean = 3.26 Median = 2</i>		<i>Mean = 0.39 Median = 0</i>	
<i>Standard Dev. = 3.66 Range = 0 - 15</i>		<i>Standard Dev. = .75 Range = 0 - 6</i>	
<b>Supplements</b>			
<b>0</b>	694(88%)		
<b>1</b>	71(9%)		
<b>2</b>	21(3%)		
<b>No Show Patients</b>			
Patient did not arrive (No Show)		128 (72%)	
Patient canceled appointment		6 (3.4%)	
Patient left without being seen		2 (1%)	
Other Reasons		12 (6.7%)	
<b>Refused to Participate</b>			
Patient did not want to participate in study		30 (17%)	
<b>No. of No Show Patients by Site</b>			
Austin		5 (4%)	
Corpus Christi		25 (17%)	
Dallas		0	
Fort Worth		21 (13%)	

Garland	9 (9%)
Harlingen	0
Lubbock	20 (17%)
McAllen	8 (4%)
San Antonio – Christus Santa Rosa	19 (14%)
San Antonio - UTHSCSA	21 (13%)
<b>Gender of No Show Patients</b>	
Male	32 (30%)
Female	74 (70%)
<b>Ethnicity of No Show Patients</b>	
Hispanic or Latino	61 (64%)
Caucasian	20 (21%)
African American	12 (13%)
Asian	3 (3%)
Native American or Pacific Islander	0
American Indian	0
Other	1
<b>Age of No Show Patients</b>	
Babies (2 years or less)	4 (3%)
Children (age 3 to 10)	7 (5%)
Teens (age 11 - 20)	10 (8%)
Adults (21 - 39)	25 (20%)
Middle Age (40 – 64)	49 (38%)
Seniors (65 - 74)	1
Ages 75 and above	6 (5%)
Missing Data	26 (20%)