

The Impact of Snowbirds to Pinellas County Emergency Medical Services

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Abstract

A 'Snowbird' is a term to describe the thousands of retirees when who temporarily reside in a warm southern states during the winter months. They arrive in Florida by the thousands and stay anywhere from one to six months. Pinellas has an estimated 45,575 seasonal 'Snowbirds' a year. They bring with them a positive impact to the county through spending locally and paying taxes, but do they impact government funded countywide programs? This study specifically examines seasonal 'Snowbirds' impact to the Pinellas County Emergency Medical Service (EMS) System. It was found that the pattern of transports by EMS is symmetrical to the expected seasonal 'Snowbird' population increase during the months of October through April and was consistent over a four-year period (1998-2001). There was also a change in pattern of paid and unpaid transports during the seasonal 'Snowbird' period different from the other months which increases the likely hood that these are different individuals from the permanent residents in Pinellas County. During this period the paid transports increased while the unpaid transports stayed the same over the 12-month period. Even though seasonal 'Snowbirds' do impact the Pinellas County EMS system, since they are more likely to have insurance and a higher income, the impact is one of a capacity impact and not an impact due to increase unpaid EMS services.

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Background

Snowbirds

A ‘Snowbird’ is a term to describe the thousands of retirees when who temporarily reside in a warm southern state during the winter months. Their most popular destinations: Florida, Texas, Arizona, New Mexico, and California. These seasonal travelers pack up [and arrive] before Thanksgiving and spend anywhere from one to six months in the Sunbelt before returning to cooler climates in the spring (Franklin, 1998).

There is very little statistical information on identifying and tracking their patterns seasonal travelers called, ‘Snowbirds’. This study will attempt to estimate the number of ‘Snowbirds’, using the 2000 U.S. Census data, from the General Housing Characteristics: number and percentage of vacancy status for seasonal, recreational, or occasional. This will give an underestimate but it will identify those who actually own homes and pay property tax, so they are apt to be more permanent over the years. Some ‘Snowbirds’ arrive and stay in rentals or RV Parks. Depending upon the county and the number of RV Parks, their numbers can be quite large and it is harder to obtain information to track these ‘Snowbirds’. Other resources such as articles, and published research will be used in addition to the secondary data from Pinellas County.

When rating the five states above by the number of vacancies due to seasonal, recreational, or occasional use, Florida (482,944) is first, next was California (236,857), then Arizona (173,149), New Mexico (31,990), and finally Texas (173,149). Within just in the state of Florida, Pinellas County is 5th when looking at the top 15 counties in the state of Florida by the number of houses with vacancies due to seasonal, recreational, or occasional use (Table 1.).

Table 1. Houses with vacancies due to Seasonal, Recreational, or Occasional Use*		
	County	Number of Houses
1	Palm Beach	52,874
2	Broward	46,470
3	Lee	39,502
4	Collier	34,337
5	Pinellas	34,111
6	Miami-Dade	29,587
7	Sarasota	20,450
8	Polk	19,099
9	Manatee	16,845
10	Volusia	15,585
11	Pasco	14,915
12	Monroe	12,332
13	Charlotte	10,512
14	Brevard	10,457
15	St. Lucie	9,056

*NOTE: Housing and Dwelling, does not include RVs. Pinellas County has an estimate of 45,575 ‘Snowbirds’, which is higher (34%) than the 34,111 shown in the table 1. The higher number is probably a more accurate estimate of ‘Snowbirds’ in Pinellas County.

Florida Snowbirds

So, who are these people, we call Florida ‘Snowbirds’? In, 1997, Galvez, identified Snowbirds as being overwhelmingly white, currently married, living in a 2-person household, and college or higher educated, largely non-participants in the labor-force, and aged 55 or older. Anderson’s (1996) findings suggest that snowbirds sample differed from the general population in that they reported good to excellent health, low utilization of health services during the past year, and high levels of social support from family and friends.

The (snowbird) season has traditional extended from Thanksgiving through Easter, but in recent years the days have blurred so that now ‘snowbirds’ tend to arrive around October and leave at the end of April (Willison, 2000).

Pinellas County

Pinellas County, Florida is located on the Gulf of Mexico. It is the 5th most populous county in the state, and the second smallest county in size in Florida (Pinellas County Department of Public Affairs, 2003). Even though density is a distinct characteristic of Pinellas County compared to much of Florida, age is also an characteristic that is strikingly different than Florida demographics overall. The U.S. Census data from 2000 state that Florida as a slightly higher percentage of individuals who are 65 years of age or older (17.6%) than the country as a whole (12.4%), the percentage in Pinellas county are even higher (22.5%) (<http://quickfacts.census.gov/qfd/states/12000.html>). When examining the percentage of residents 65 years of age and older by county, Pinellas is in the top 20 (Table 2).

Table 2. County Population 65 Years of Age or Older

County	65+ %	County	65+ %	County	65+ %	County	65+ %
Charlotte	34.7%	Pinellas	22.5%	Holmes	14.8%	Okaloosa	12.1%
Highlands	33.0%	Volusia	22.1%	Monroe	14.6%	Hillsborough	12.0%
Citrus	32.2%	Brevard	19.9%	Jackson	14.6%	Osceola	11.4%
Sarasota	31.5%	DeSoto	19.0%	Madison	14.6%	Hamilton	11.2%
Hernando	30.9%	Glades	18.8%	Jefferson	14.5%	Santa Rosa	11.0%
Indian River	29.2%	Putnam	18.5%	Taylor	14.1%	Seminole	10.6%
Flagler	28.6%	Polk	18.3%	Columbia	14.0%	Duval	10.5%
Martin	28.2%	Levy	17.9%	Calhoun	14.0%	Wahulla	10.3%
Sumter	27.4%	Dixie	17.1%	Hardee	13.9%	Liberty	10.2%
Pasco	26.8%	Suwannee	16.9%	Gilchrist	13.6%	Hendry	10.1%
Lake	26.4%	Okeechobee	16.3%	Bay	13.4%	Orange	10.0%
Lee	25.4%	Gulf	16.2%	Miami-Dade	13.3%	Clay	9.8%
Manatee	24.9%	Broward	16.1%	Escambia	13.3%	Alachua	9.6%
Collier	24.5%	St. Johns	15.9%	Bradford	12.9%	Baker	9.2%
Marion	24.5%	Walton	15.8%	Nassau	12.6%	Leon	8.3%
Palm Beach	23.2%	Franklin	15.7%	Lafayette	12.4%	Union	7.5%
St. Lucie	22.7%	Washington	15.7%	Gadsden	12.2%		

Pinellas County EMS

Could an influx of an estimated 34,000 to 45,575 older population impact the Pinellas County EMS system and how so? This paper will attempt to examine this question. The Pinellas County EMS and Fire Administration coordinates emergency and fire contracts with service agencies countywide and administers the Sunstar paramedic ambulance service. The average response time of 4 ½ minutes from the time your call is placed is among the lowest in the nation (Pinellas County Department of Public Affairs, 2003). According to the 2000 U.S. Census data, Pinellas County has a population of 921,482, with the influx of ‘Snowbirds’ that would increase the population 5% during the seasonal ‘Snowbird’ period.

Study

This study is to examine to what extent the impact of the influx of snowbirds (seasonal temporary residents 65 years of age and older) have on the Pinellas Emergency Medical Services over a period of four years. What months show increases of EMS for this age group and what types of services are received? What are the peak months and have they increased over time? What are the costs and are those costs paid?

When seasonal visitors, also known as snowbirds, head south, the population of Pinellas County increases. Often the influx of snowbirds is seen as positive because they bring with them money which in turn is spent locally, and increases county funds through taxes (Jones, 1990; Galvez, 1997). What hasn’t been researched is the impact on the county funded services, specifically emergency Medical services. Since the elderly have higher medical needs and a higher potential for costly emergency services, one might expect an increase in EMS transports for this population, but it has also been said that these individuals are healthier and more likely to

have medical coverage, so they may not use the emergency system (ambulance, fire rescue, emergency rooms) as often as those permanent residents. This study will examine the impact of snowbirds to the Pinellas County Emergency Medical Service (EMS).

Method

This is a two part study which first looks at those individuals 65 years of age and older and compares them to the rest of the population being served by Pinellas EMS. This gives a proportionate comparison of the 65 years and older with those under 65 years of age being served to better understand that size of the impact. The second part of the study will focus on only those 65 years of age and older and their patterns of service use in the Pinellas EMS System. It will attempt to identify monthly patterns of service needs and costs during seasonal 'snowbirds' months and the impact to Pinellas County EMS System.

To deal with the issue of identifying those seniors who are permanent residence and those who are seasonal residence, an assumption will be made that EMS services to provide to permanent residence are stable overtime. The permanent residence needs can be identified during non-seasonal months and the increase during those seasonal 'snowbird' months will be partially identified with the increase in the elder population due to the influx of 'snowbirds'. Seasonal 'Snowbird' months will be October through April based on past research (Hundley, 1997, Anderson, 1996, Galvez, 1997) and the months to identify permanent resident population 65 years of age or older will be May through September. There is a concern about using assumptions, and it should be acknowledged here, that there are monthly patterns of higher needs for permanent elderly residence that may coincide with those seasonal 'snowbird' months, so not all of the increase during seasonal 'snowbird' months can be attributed to EMS service received

by the 'snowbird' population, nor can EMS services by permanent elderly and seasonal elderly be teased apart using the data in this study.

Study Questions

The preliminary research questions include:

- What is the pattern of EMS services by age over a 12 months period?
- What is the pattern of EMS services by age over a four-year period?
- What is the pattern of EMS services being used by the elderly and during what months is there an increase?
- What are the type of needs and services they are receiving?
- Have the patterns of the amount of services, types of services, paid/unpaid costs changed over time?

The hypothesis's are as follows:

- There will be a pattern where specific months will have an increase of EMS transports being provided to those 65 years of age or older.
- There will be an increase in the type of conditions and services specific to the needs of those 65 years of age or older.
- The cost (Paid/unpaid) proportionately will not change across all months for EMS services to those 65 years of age or older, as Medicare is the primary insurance coverage for this population.

Subjects

Subjects are the population found in the Pinellas County EMS System over a four-year period (1998- 2002). Initially all age groups will be used to compare groups to those 65 year of age or older, secondly, only those EMS transports involving those 65 years of age or older when looking at patterns.

Data

The data used for this study is secondary data obtained from the Pinellas County EMS system over a four-year period. The period of time being examined is from July 1, 1998 through June 30, 2002. It contains transports by EMS and contains information about the transport such as date and cost of transport, and information about the patient such as age, gender and diagnosis.

Findings

Findings – Part one of Study

The first notable observation is that those 65 years of age or older are a large portion of the population EMS serves. When looking at those 65 years of age or older with all the other groups is that approximately 50% of EMS transports are for this population over all 12 months.

Initially there were two primary questions that arose in defining this study: What age group are “Snowbirds”?’ and ‘What months do they arrive and then subsequently leave?’. Findings did support that there is an increase in transports for those 65 years of age or older during the period from October through Jan and a dip in February, then a decrease through April. For purposes for this study, we decided to identify ‘Snowbirds’ as those who are 65 years of age

or older and the months that they stay are from October through April. What was reaffirmed is that seasonal ‘snowbirds’ so show to be those individuals 65 years of age or older. Those between the ages of 46-55 and 56-64 did not show the same seasonal pattern of increase during November through April as the older group did across all four years of data (Chart 1,2,3,4). So, because of this finding any further information showed by age group will be contain a dichotomous grouping of those under 65 years of age and those over 65 years of age, as this study is interesting in those 65 years of age and older.

Chart 1. (1998-1999)

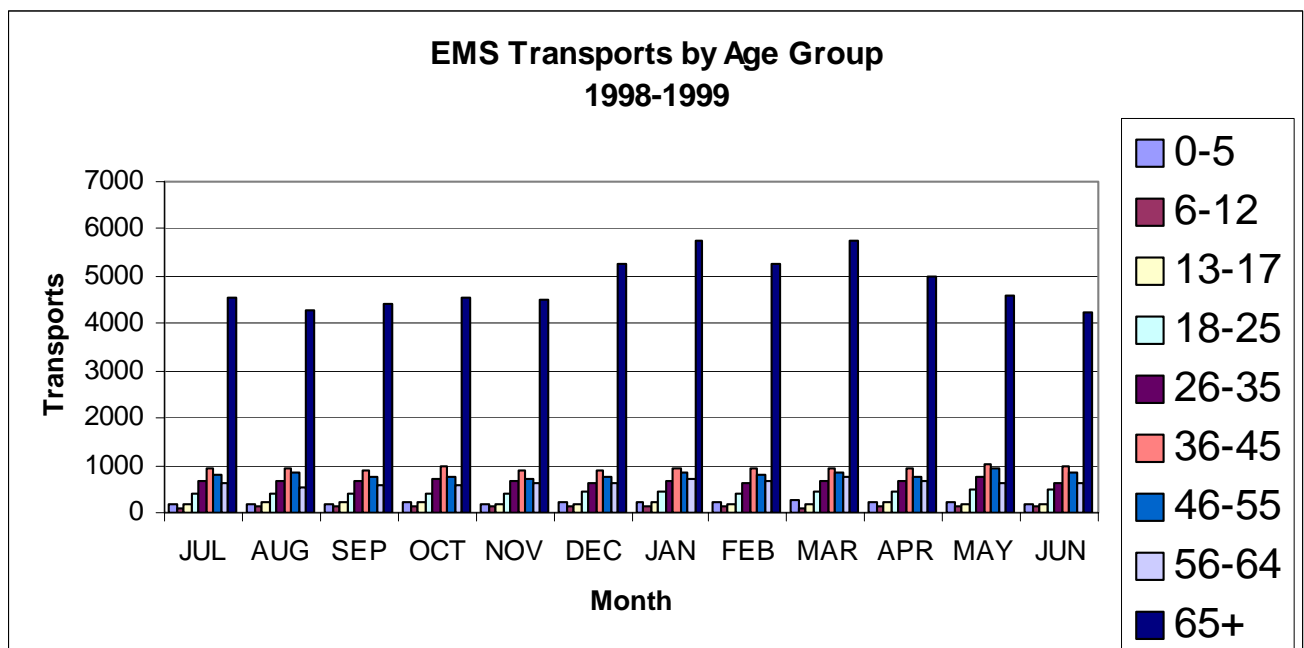


Chart 2. (1999-2000)

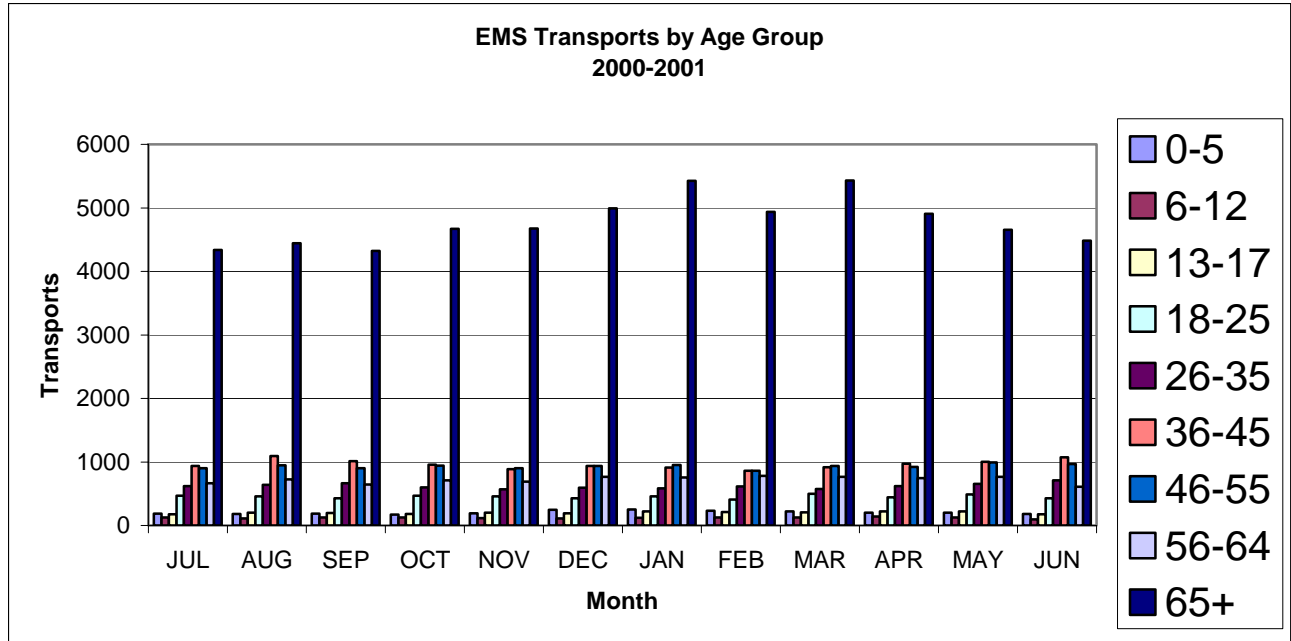


Chart 3. (2000-2001)

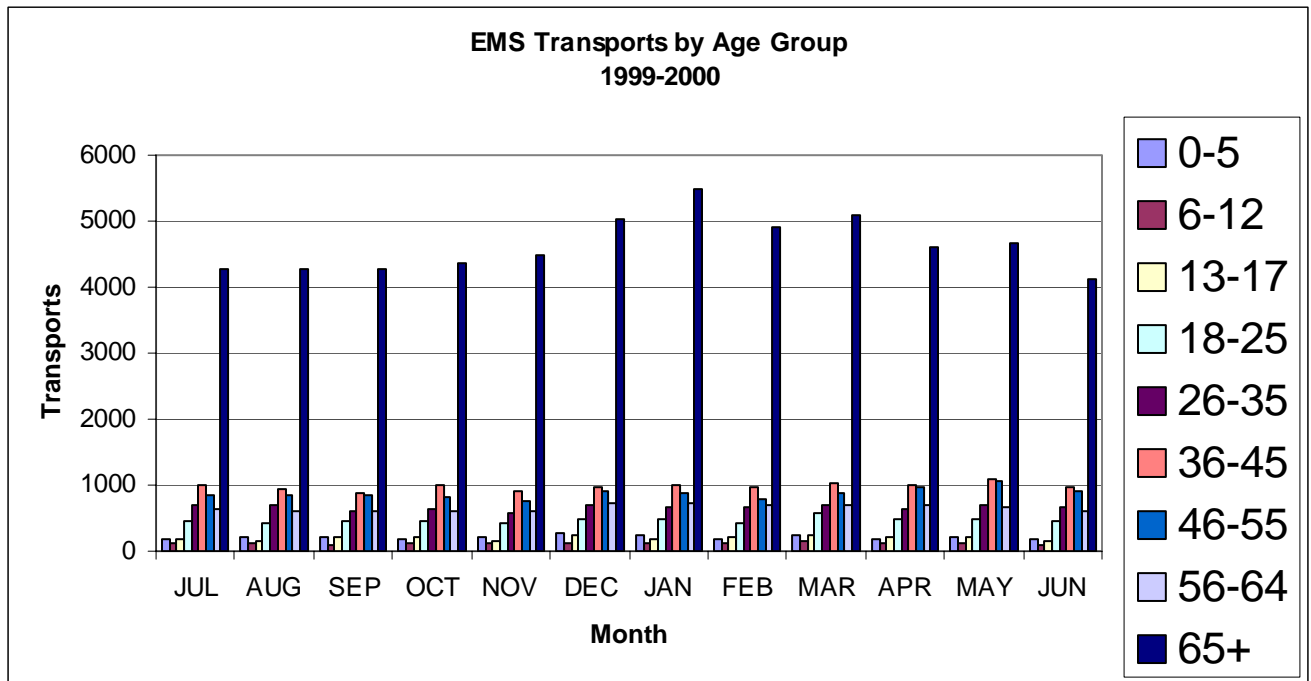


Chart 4. (2001-2002)

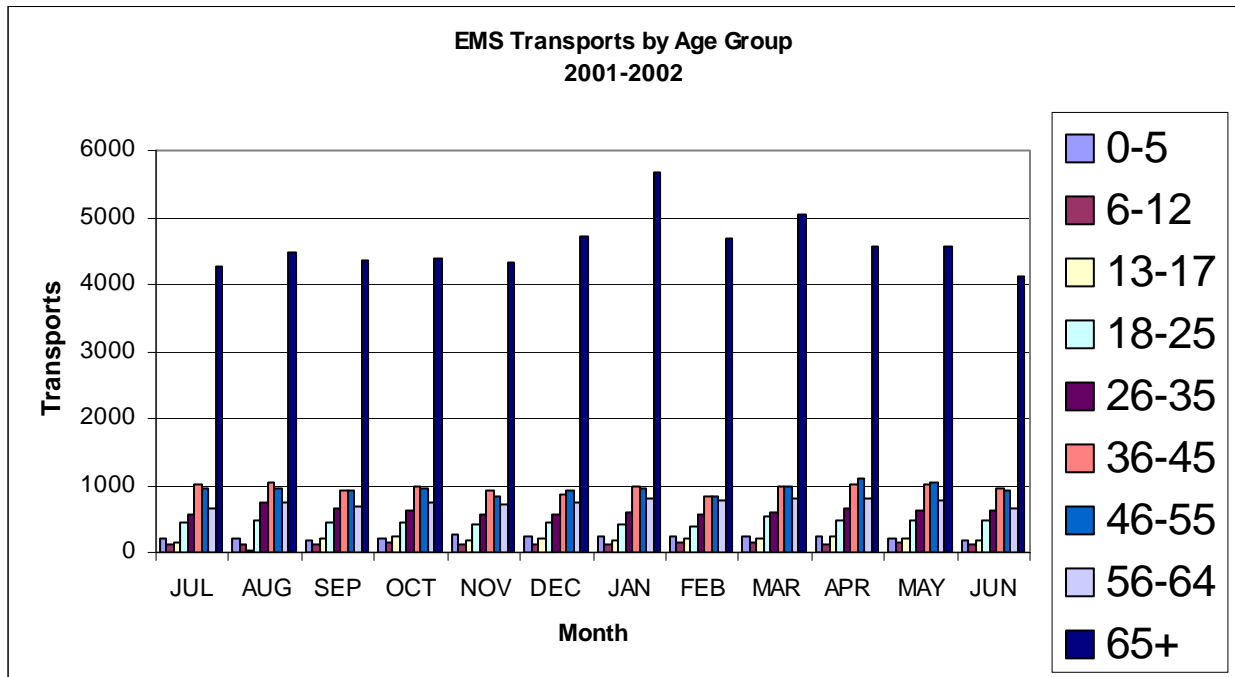
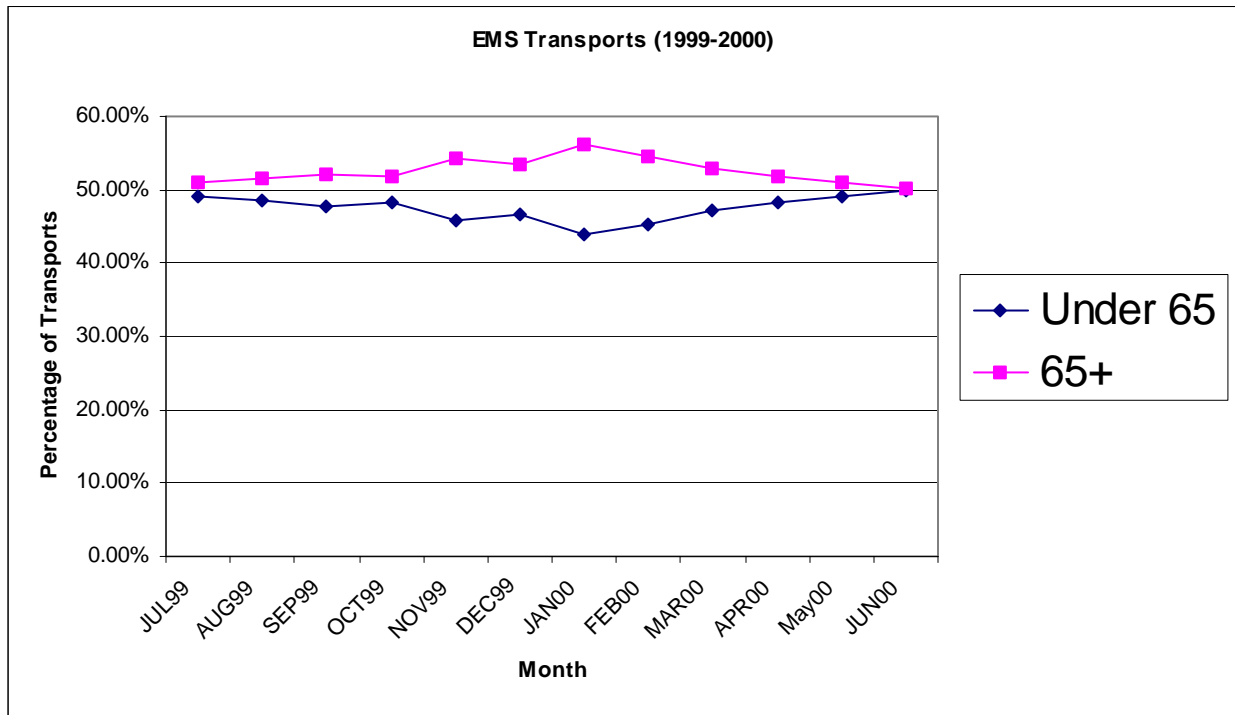


Chart 5 shows the two dichotomous age groups and their monthly pattern in the fiscal year of 1999-2000. The pattern is similar over all four years, so only the one-year is shown. It shows a pattern of those under 65 decreasing during the months identified as seasonal 'snowbird' period and increasing during the summer months, those 65 years of age or older is almost the mirror opposite.

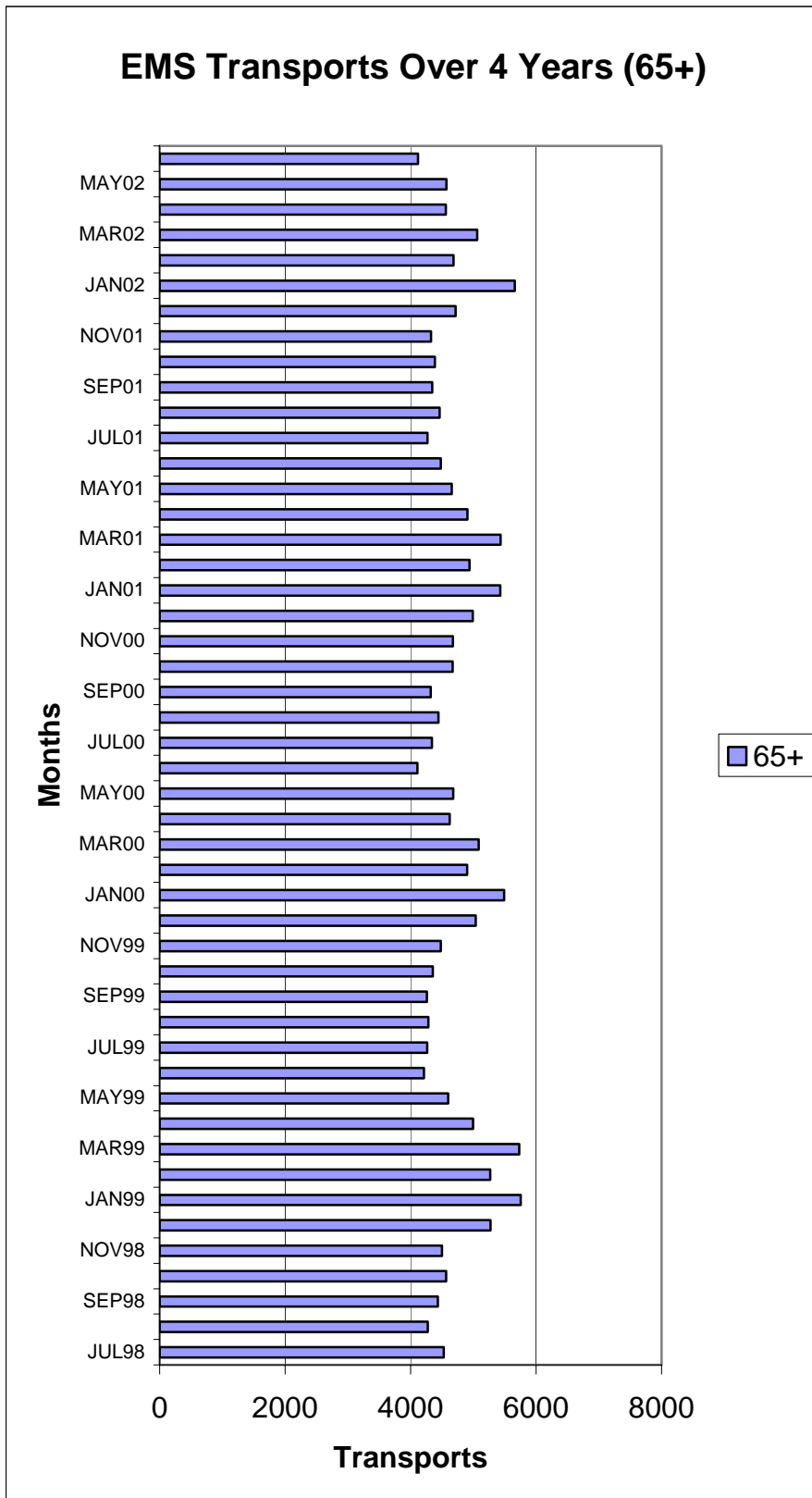
Chart 5. EMS Transports Over 12 Months (1999-2000) by Age Groups



Findings - Part Two of Study

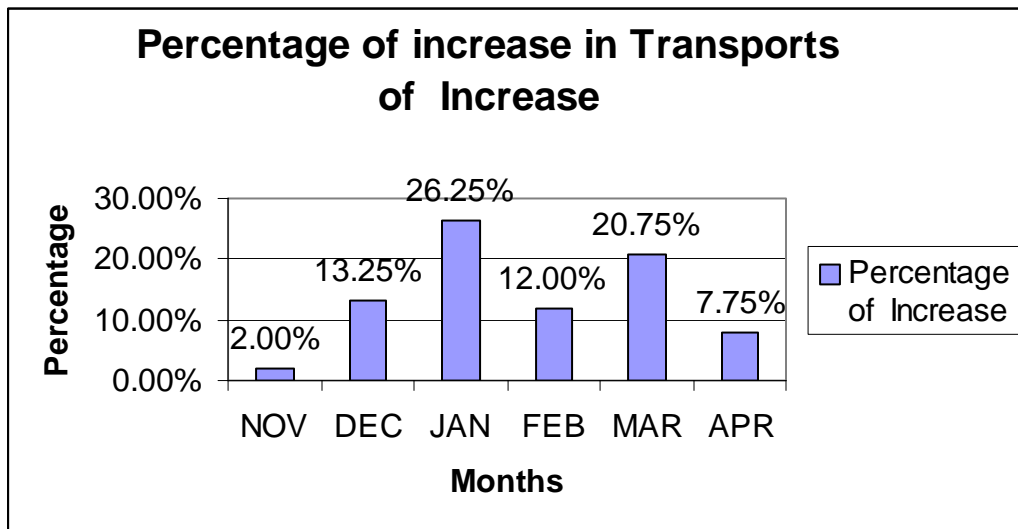
There is this seasonal ‘Snowbird’ pattern change each of the four years. This answers the first three questions. The answer is yes, there is an increase of the number of transports during those months identified as the seasonal ‘snowbird’ period (chart 6.) It is interesting to note that the month of February shows a slight dip in the number of transports. This cannot be explained, but the same dip is apparent in Galvez (1997) study, which looked at all snowbirds in the state of Florida. It could be a pattern caused by a limitation in the number of months insurance companies will cover out of state medical and pharmaceutical needs?

Chart 6. Transports of Those 65+ in Age Over a Four-year Period.



To the question of whether there is a change in pattern for those 65 years of age or older that answer is clearly yes and the pattern carries on over the four year time period. The question is this increase due to seasonal ‘snowbird’ population or is it due to other patterns of EMS services utilization? Are these different people than the patients who receive EMS services the months of May through October? The mean age of individuals being transported during this time does not change dramatically, nor does the gender breakdown, so we do not believe that this question cannot be answered with this data. An assumption can be made that some of the pattern can be due to the ‘snowbird’ population as there is an EMS increase of transports similar pattern of the influx of ‘snowbirds’. The percentage increase in transports over the six months identified as seasonal ‘snowbirds months was calculated from the average number of transports over the non-seasonal months (Chart 7).

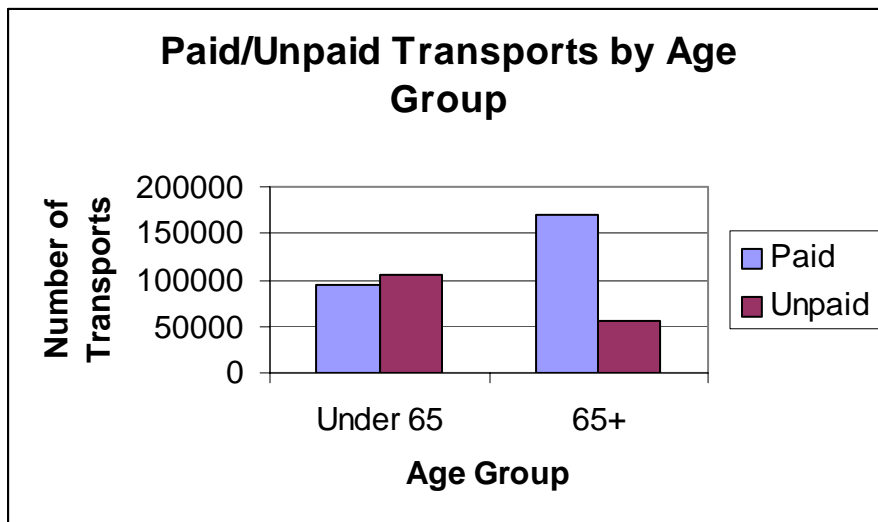
Chart 7. Percentage of Increase in Transports of those 65+ in age



Costs

With an increase of transports there is an increase in billing. The Pinellas County EMS system allows us to examine the transports by whether the transport bill was paid or not paid for. First, we went back and compared the transports by age group and found striking differences between those under 65 years of age and those who are older. An EMS transport is much more likely to be paid for if the patient being transported is 65 years of age or older (Chart 8). One explanation is that at the age of 65, Medicare is the primary insurance and almost everyone at the age of 65 qualifies to be under Medicare. This pattern was also similar across the years.

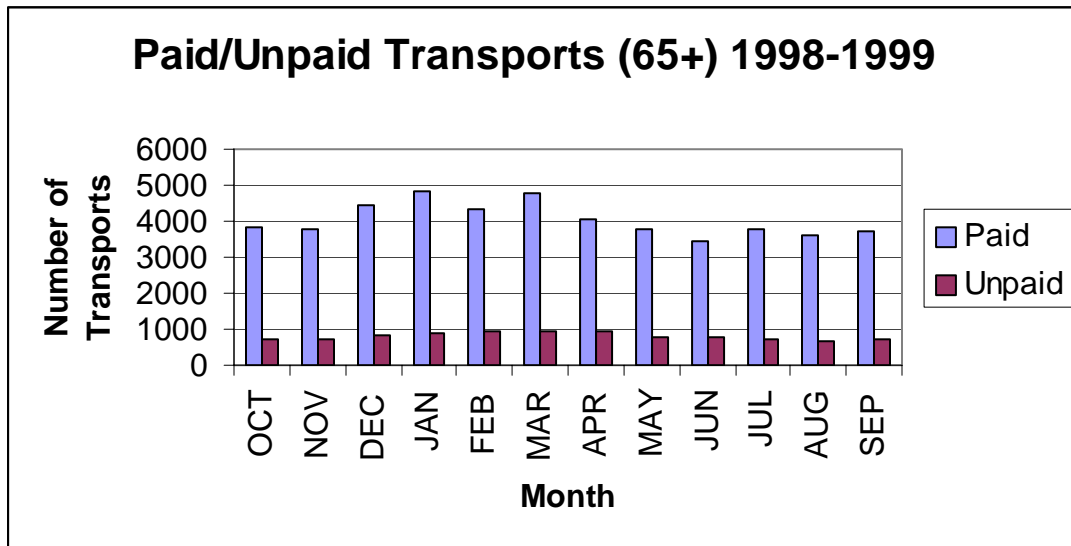
Chart 8. Paid/Unpaid Transports by Age Group over multiple years.



When just looking at those 65 years of age or older by month, we may have a small awareness that the increase transports maybe seasonal 'snowbirds' rather than the same population EMS transports during the non-seasonal 'snowbird' months (May – October). If they were the same population then you would not expect to see any difference across any of the

months. There is a pattern of increase in paid transports during those seasonal ‘snowbird’ months (Chart 9.)

Chart 9. Paid/Unpaid EMS Transports 1998-1999 for those 65 year of age or older.



While the paid transports increased the unpaid transports did not. This maybe due to a portion of the increase transports are for those seasonal ‘Snowbirds’, who are more likely to have Medicare or other health insurance.

Diagnosis

Often a clear diagnosis of the patient cannot be given until a physician examines them. Since this is not done prior to the transport the diagnosis often was assigned was vague (i.e., ill-defined conditions). The data contains a high percentage of Symptoms, signs, and ill-defined conditions (35.71%) and Supplementary classification of external causes of injury and poisoning (19.69%). When looking at the two age groups, we found that for those 65 years or older the

third, fourth, and fifth category of diagnosis was Diseases of the Circulatory System (14.10%), Diseases of the Respiratory System (8.86%), and Mental Disorders (2.54%) (Chart 9.), while those under 65 year of age were flipped with Mental disorders (12.75%), Diseases of the Circulatory System (5.31), and then Diseases of the Respiratory System (5.14) (Chart 10.).

Chart 9. Breakdown of Diagnosis of Those 65 Years of Age and Older

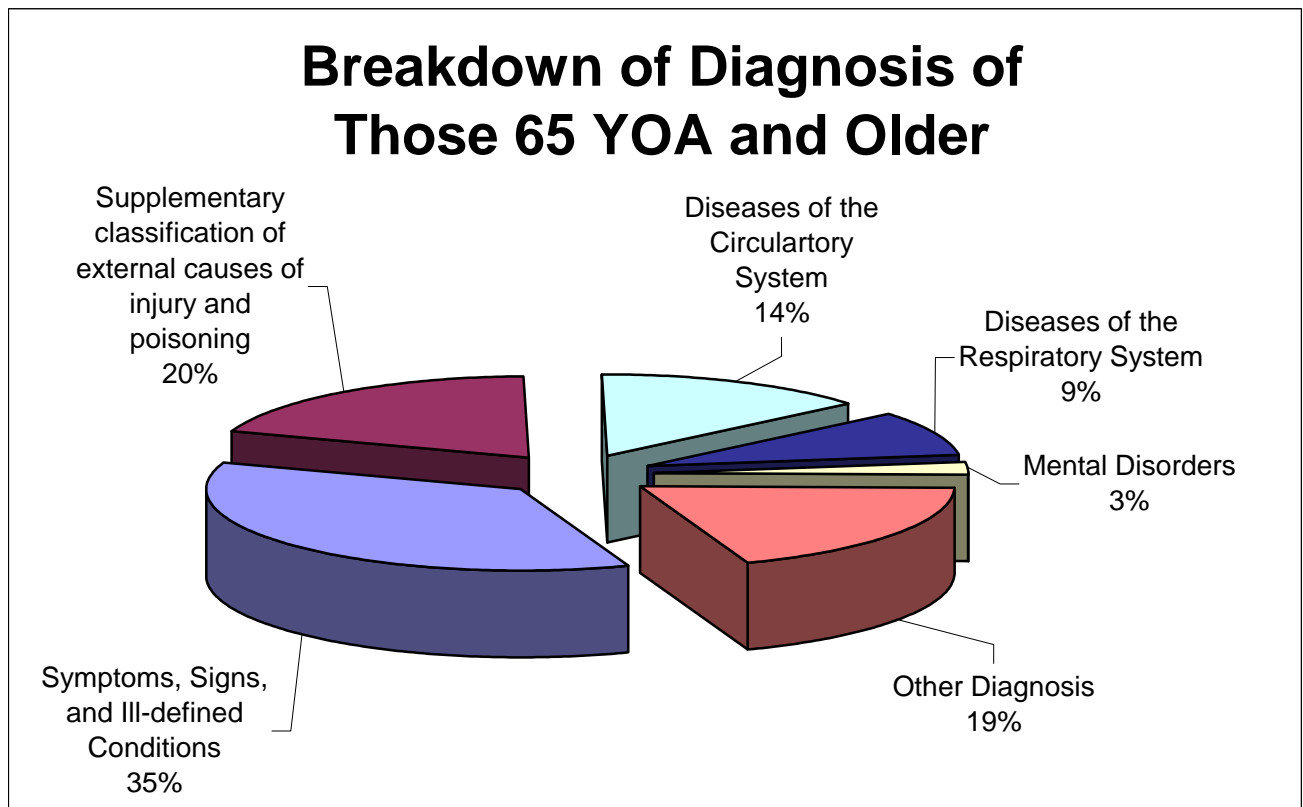
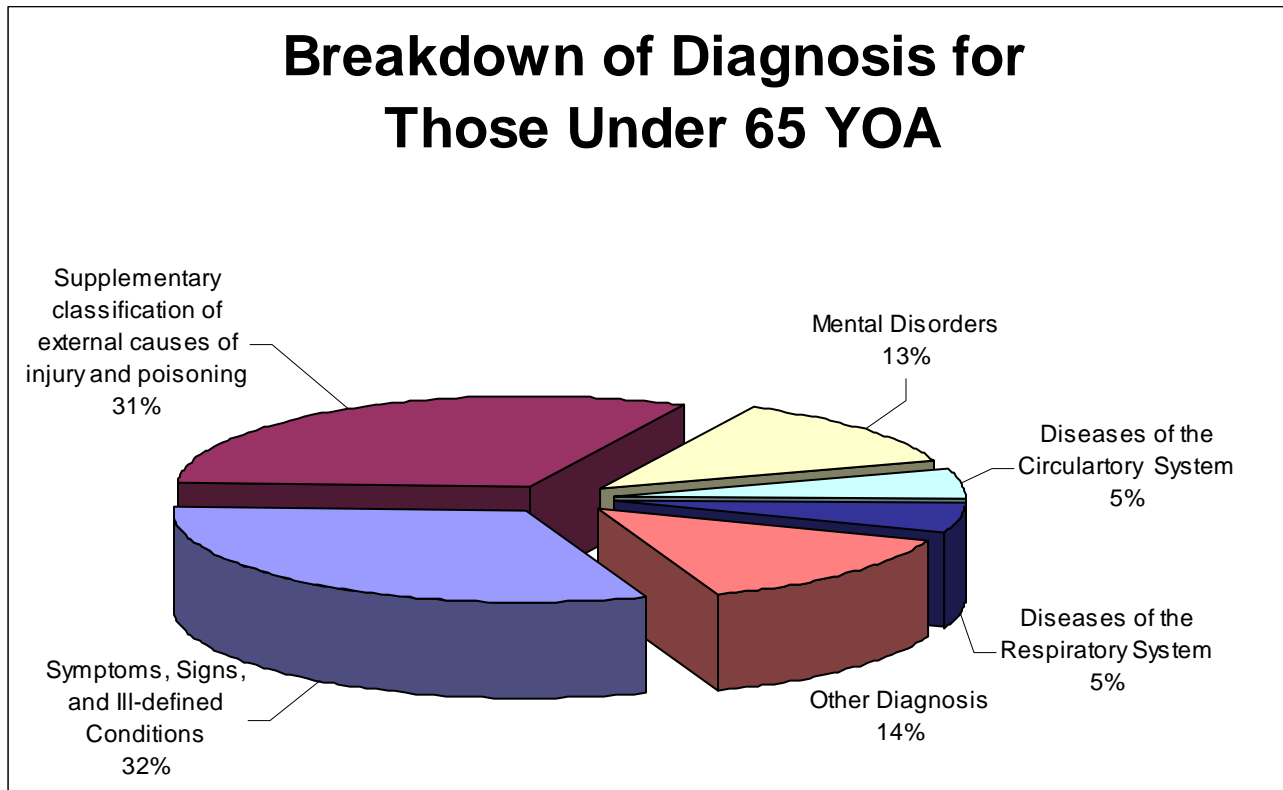
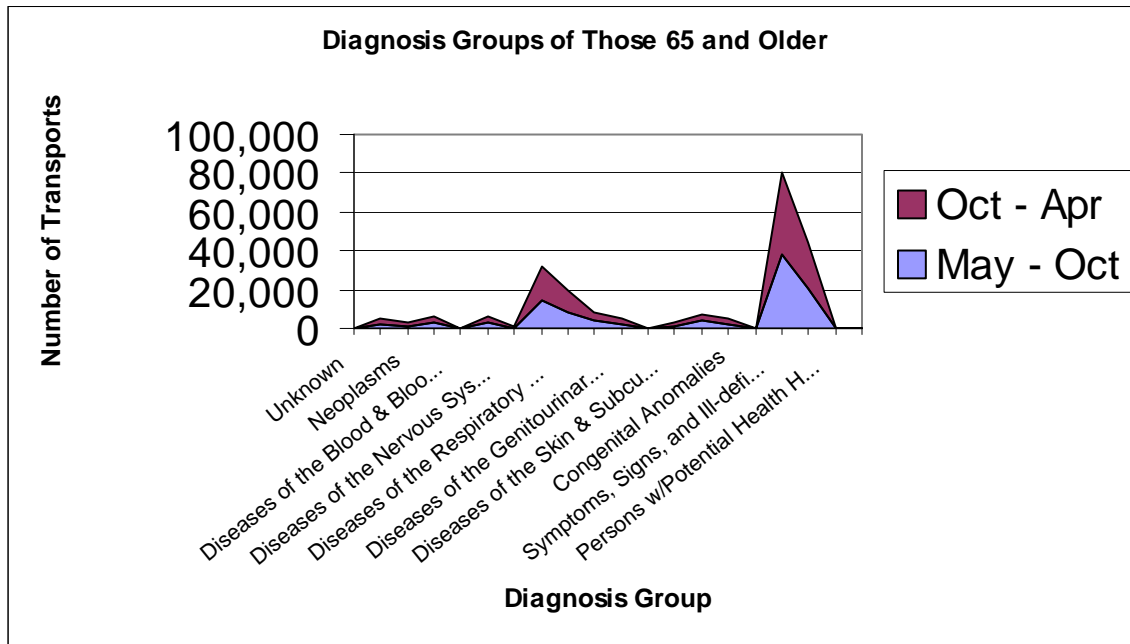


Chart 10. Breakdown of Diagnosis of Those Under 65 years of age



When looking at only those over 65 years and older over a twelve month period there is an increase Symptoms, signs, and ill-defined conditions, Supplementary classification of external causes of injury and poisoning, Diseases of the Circulatory System, and Diseases of the Respiratory System (Chart 11.)

Chart 11. Diagnosis Groups of those 65 years or Older by seasonal and non-seasonal months



Conclusion

In conclusion, this study did find an increase in EMS transports for the age group that seasonal ‘snowbirds’ are a member of. While this pattern of increase could not be directly linked to the influx of seasonal ‘snowbird’ population, it is illogical that no individual ‘snowbird’ would seek emergency treatment during the six-month period defined for seasonal ‘Snowbirds’. The older population is more than likely to pay for or have insurance that covers EMS transports than their younger counterpart. The types of diagnosis does not show any difference over the twelve month period other than the expected increase in number with the corresponding increase in transports. It is more than likely that some of the increase transports are due to ‘snowbirds’. Research has shown that snowbirds’ are healthy, have insurance, probably pre-plan with their doctors, pharmacy, HMOs/Insurance companies prior to coming down for the winter and thus may not impact the Pinellas County EMS system as much as other populations.

While this study found that the seasonal ‘Snowbirds’ do impact the Pinellas County EMS system, over 22% of Pinellas County permanent residents are also 65 years of age or older. Walker (1990) study showed for persons 65 years and older, 35% of ER visits are for non-emergent care. Koff (1990) found that older persons sought emergency services for a variety of reasons ranging from relatively non-threatening to life-threatening medical situations. Some persons went to the emergency room because of slight physical discomfort, vague physical symptoms, possibly out of loneliness. His findings suggest that case management services provided to minimally to moderately frail older persons might have an impact on their utilization of emergency services. The uninsured may go to the emergency room with less serious medical problems than the insured for the simple reason that they lack alternative ways to access the health care system (Jackson, 2001). As the number of individuals who are uninsured increases the EMS system could expect a similar increase in services to this population. Are there ways to work with community agencies to increase access to information to this uninsured population about alternative insurance programs?

It is importance of looking at the older population when creating strategic plans for the Pinellas County EMS system. They consume at this time approximately 50% of EMS services. The older population has greater needs than the average person younger than 65, including physicians, hospitals, pharmacy, nursing homes, and the emergency medical service system (911, rescue services, ambulance services). The older population is proportionately increasing as the ‘Baby Boomers’ age. An increase in the normal age of retirement (NAR), which has past legislation, and the potential increase in Medicaid Eligibility Age (MEA), which is being considered, would have significant impacts on Social Security beneficiaries, Medicare-eligibles,

and employment (http://research.aarp.org/econ/2000_15_eligibility_1.html). These increases would significantly reduce the number of people who receive full Social Security Benefits and who are covered by Medicare (http://research.aarp.org/econ/9911_eligibility_1.html). Recent discussions of raising the eligibility age for Medicare from age 65 to 67 have direct implications for access to health coverage (<http://research.aarp.org/health/healcov1.html>). If older individuals do not qualify for Medicare, will they have sufficient insurance coverage from their employer, or will the Medicaid, or State systems take over the burden paying for medical services they cannot afford?

Acknowledgements

This project was made possible due to the cooperation of the Pinellas County Data Collaborative and benefited from the support from the Pinellas County Mental Health and Substance Abuse Task Force.

The Pinellas Data Collaborative

The Pinellas Data Collaborative was established in the fall of 1999 as a result of Chapter 163.62 Florida Statute, which allowed governmental and certain private agencies to share information. Their mission is to enhance the delivery of mental health and substance abuse programs to Pinellas County residents by encouraging communication and collaboration among all related community providers, organizations, interested government agencies, and educational institutions. One of these county agencies is the Pinellas County Emergency Medical Service (EMS) System. This agency has agreed to allow their data to be used as an example in the use of secondary data for purposes of this paper.

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