

Measurement of Attitude in Personnel When Dealing with a Growing Aging Population Served  
by Anderson Township Fire and Rescue Department

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## **CERTIFICATION STATEMENT**

I hereby certify that the following statements are true:

1. This paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

2. I have affirmed the use of proper spelling and grammar in this document by using the spell and grammar check functions of a word processing software program and correcting the errors as suggested by the program.

Signed: \_\_\_\_\_

Printed Name: \_\_\_\_\_

## **ABSTRACT**

Anderson Township, Ohio, supports a growing population of persons who are older, mirroring a U.S. trend. In recent years, the number of Emergency Medical Service-related responses senior citizen centers here registered a substantial increase. From anecdotal information, it was perceived there were negative attitudes in EMS workers who continuously dealt with this age group in one out of every four responses. This study documents these demographic increases and probes attitudes of EMS workers responding to senior care facilities. An anonymous, voluntary survey probed preferred EMS situations to determine if EMS personnel held negative feelings. Survey results indicated staff held no overall negative feelings in serving persons who are older. No direct action was taken as a result of the study.

**TABLE OF CONTENTS**

CERTIFICATION STATEMENT.....2

ABSTRACT .....2

INTRODUCTION.....4

Statement of the Problem.....4

    Purpose of the study.....5

    Research Questions.....6

BACKGROUND AND SIGNIFICANCE.....8

LITERATURE REVIEW .....11

PROCEDURES.....14

    Definition of Terms.....15

    Limitations of the Study.....15

RESULTS.....17

DISCUSSION.....20

RECOMMENDATIONS.....21

REFERENCES.....23

APPENDIX 1- Survey.....25

APPENDIX 2- A Profile of Older Americans 2002.....26

APPENDIX 3 - Older Population .....28

## INTRODUCTION

### **Statement of the Problem**

The problem this applied research addressed in the Anderson Township Fire and Rescue Department was to verify if there is a perceived attitude change with personnel related to Emergency Medical Service responses dealing with an increasing aging population. Comments within the department have been on the rise related to responses the growing population of seniors. The suburban community of Anderson Township, Ohio, is an aging community. After a large influx of Baby Boomer residents settled in new homes in the 1980s and 1990s, the community has moved into a different phase in its development. These “Boomers” are now contemplating retirement and planning for life without children as they enter their fifties, sixties and beyond. As the community has aged and matured, a number of residential senior care living options have grown to fill the need. Additionally, many “Boomers” in the community now care for their parents who live in area retirement complexes.

Currently, there are six facilities in Anderson Township providing some level of assisted living for seniors. In the last few years, the Anderson Township Fire and Rescue Department has noted a leveling out to an increase in the number of calls to these assisted living facilities, as the numbers of seniors living in these centers apparently has remained constant. However, it is not exactly clear why residents of these facilities are calling 9-1-1 more frequently than they did 10 years ago. One possibility is that seniors are trying to live independently (inexpensively) for as long as possible and thus do not always have the finances to provide the kind of care they need. Another is that cutbacks in both assistance and insurance plans have restricted some seniors' ability to receive necessary home care. We are seeing some systemic abuse -; for example in a 2-year period, one senior called for help more than fifty times, mostly just - to be placed back in

bed. Other “frequent flyers” are on a first name basis with many of the paramedics and these persons call for support services outside the normal realm of the typical EMS service (for example, these older persons are lonely or scared to use other means so they call us for help). The fact is, in 2003, our Station 6 employees visited one of these three senior facilities one out of every four times they were called out. Of 1,186 EMS responses in the year 2003, 330 were to these facilities.

The ramifications of increased EMS responses from senior living facilities could be numerous. These increased 911 calls could eventually add a burden to our EMS system, and if they increase, could cause a number of staffing and response issues for our department. That in turn could cost taxpayers in either decreased service availability of current services or increase the present service beyond its capabilities. Within the ranks of the Anderson Township Fire and Rescue Department there is a perception that EMS personnel may not like making repeat visits to these care facilities. Often these calls involve helping the same individual who repeatedly has the same problem.

In summary, the goal of this paper will be to document the level of increased responses to these senior centers and measure whether negative attitudes do exist within those EMS personnel who consistently respond to these three senior care facilities. If, in fact, there are negative feelings on behalf of staff members in dealing with residents at these facilities, my goal will be to address the issue (in training or discussion) and to help alleviate or minimize these concerns within the ATFD staff.

### **Purpose of the Study**

The purpose of this applied research project will be to document the level of increase in the number of responses (per population) made in recent years to three senior living facilities and

to survey attitudes about responses on patients who are older. Through information gained through an anonymous survey, data was compiled about how Anderson Township Fire and Rescue Department personnel felt about making emergency responses to these locations and whether their attitudes are beneficial to organizational purposes. Also as a byproduct in the course of study, I may discover whether EMS personnel feel any differently about serving one segment of the township population over another.

Results of the study will provide the impetus for change in several areas. First, a program to address negative feelings on the part of EMS personnel could be crafted depending on the result of this survey. Second, further training may be necessary for our staff to learn how we may meet the specific needs of patients who are older. Additionally the issue of numerous EMS calls by patients who are older could be examined on a township-wide basis to see if there were other ways to handle the needs of our growing senior citizen population. Changes in department policies, training redirection possibilities and prevention issues also may be outcomes resulting from this study.

### **Research Questions**

The methods used in the research were descriptive and evaluative. The following research questions are addressed in this paper:

1. Has there been an increase in the number of EMS calls received from three senior assisted living centers in the last 10 years? If so, can this increase be documented?

2. What attitudes do Anderson Township EMS personnel have about their increasing workload constituted of patients who are older and live in three of the township's six senior care facilities?

3. What department policies, procedures and training (if any) need to be addressed by those workers who consistently respond to emergencies of patients who are older?



## BACKGROUND AND SIGNIFICANCE

The Anderson Township Fire and Rescue Department was formed in 1940. Soon after the department's inception, the community began receiving an EMS service (basic first aid) and transport service for medical and trauma emergencies. In 1977, the department began its paramedic service serving about 25,000 residents from two stations. With continued township growth since 1940, the department received a major growth spurt in population between the years 1990 and 2000. The most recent census bureau reports the population at 43,857 in the year 2000 within the original boundaries of 32 square miles. This compares to 39,939 in 1990 (Anderson Township history). The following table was created to compare the 1990 and 2000 census as it relates specifically to limited age groups in Anderson Township. As noted in "Table 1," Anderson Township shows a marked increase in the number of residents grouped into the section of patients who are older. (For the purposes of the study, a resident who is older is deemed 55 or older. Some of our senior living facilities accept residents starting at age 55).

**Table 1**

*Profile of Anderson Township Residents by Age*

Year	1990	2000	Increase
Total Population	39,939	43,857	10%
Percent or Population 55 and Over	30.70%	38.00%	24%
<i>Note.</i> Source: (History of Anderson Township, <a href="http://www.andersontownship.org">http://www.andersontownship.org</a> )			

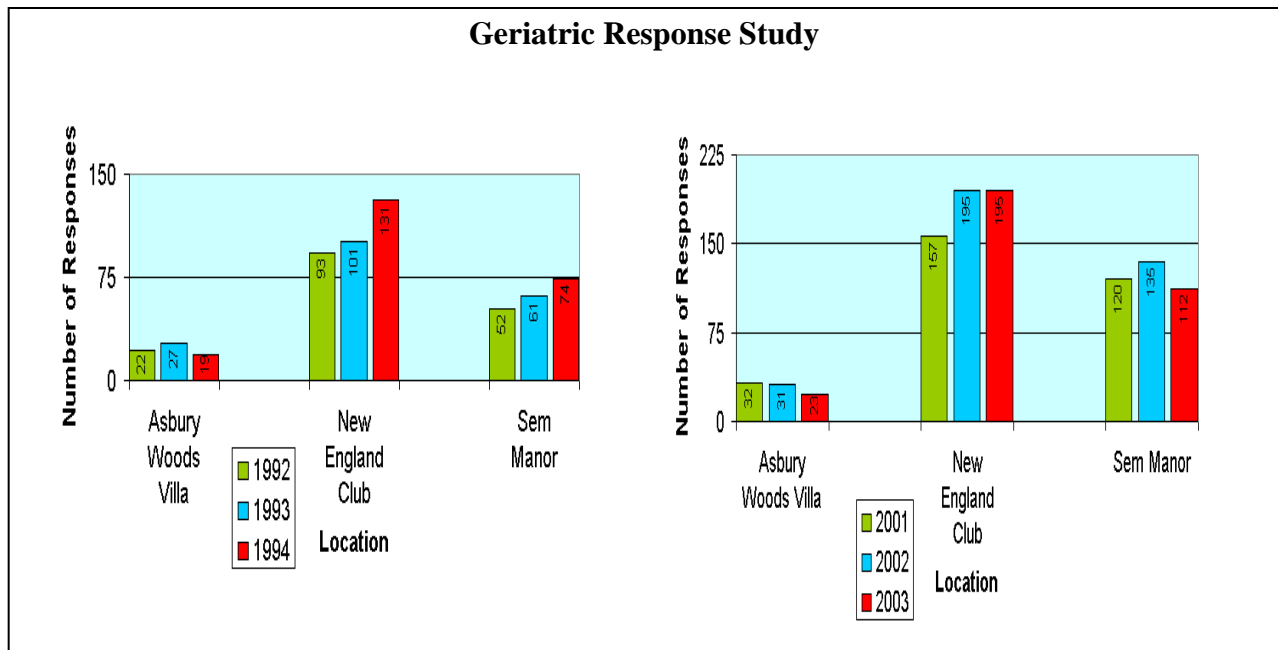
There are six facilities in Anderson Township, which care for patients who are older, three of which will be examined in the course of this study. To limit variables in level of care at each facility, the study has been restricted to three senior citizen residential centers that are

relatively similar in the services provided and in acceptable age range accepted. Seniors living in these centers must live independently and maintain their own apartments.

The three senior living facilities are SEM Manor, the New England Club and Asbury Woods. SEM Manor is an assisted living facility accepting lower-income residents at age 62. The New England Club is a high-level care facility, accepting residents at age 55. Asbury Woods is a medium-care facility, accepting residents starting at age 62. Each provides somewhat different levels of care for residents, but all provide independent living.

“Table 2” details the number of responses made in 1992- 1994 compared to 2001 -2003.

**Table 2: Responses to the care facilities in Station6’s area: 1992-1994 compared to 2001-2003**



The increase in the population that is older in Anderson Township coincides with a general increase in the number of people 65 and older in general in the United States. The number of people 65 years and older was 35.0 million in the year 2000, an increase of 3.7 million or 12 percent since 1990. The number of Americans aged 45-64 who will reach 65 over

the next 20 years, increased by 34 percent in the past decade of 1990 to 2000. About one in every eight persons is an older American, (12.4 percent). In the year 2000, more than 2 million people celebrated their 65<sup>th</sup> birthday, (5,574 per day). Persons reaching the age of 65 have an average life expectancy of an additional 17.9 years of life. By the year 2030, the older population will have more than doubled to about 70 million. The 85 years of age plus population is projected to increase from 4.2 million in 2000 to 8.9 million in 2030. (Profile of Older Americans, 2002)

Increasing numbers of EMS calls to assist the patients that are older raises several concerns, both internal and external. One internal issue relates to job satisfaction or job longevity of EMS personnel. A concern of mine is losing quality personnel because some paramedics may find it boring or monotonous to make multiple responses to assisted living residences in the township. This observation evolves from comments such as “frequent flyers” or “regulars” made by various firefighter-paramedics who have privately expressed sarcasm or negative attitudes towards the senior care facilities and the number of responses generated from these locations. I was deeply concerned with these comments and felt strong enough to study whether they are true, rumors or just a way for our personnel to vent.

For example, personnel also complain about system misuse and wonder what can be done about it. On a personal note, in my 27 years with the department I have seen an increase in EMS calls by patients who are older and have witnessed jokes and teasing about the number of calls and returns to these facilities. In fact, some fire and rescue personnel have observed that once we make a response at one of these facilities, our presence provokes a string of 911 calls from other residents at the same facility. Negative attitudes about the responses could greatly affect our effectiveness. If research determines that a problem is developing, the survey should enable the department to prove that preparation is needed to address potential issues.

## LITERATURE REVIEW

Anderson Township is not the only community to experience an increase in the number of its residents who are older. As people live longer, the population of residents who are older will increase throughout the United States. Thus, fire and rescue agencies nationwide will potentially face more numerous EMS calls as more residents who are older continue to try to live independently.

The U.S. census, the National Center on Health Statistics and the Department of Health and Human Services critical findings have published several articles with statistics related to trends observed in Anderson Township. Emergency medical services periodicals have much documented material on patients who are older as they relate to EMS, but little or no information on the attitudes towards the delivery of service from EMS personnel have been documented or acquired.

The fact appears that many communities have not planned well for their residents who are older. Many residents who are older left the urban center in their younger years and escaped to the suburbs. At that point, no thought was given to senior living situations. One of the reasons a problem existed with the aging population in the suburban geographical settings is because the idea was to escape the pressures of the urban center (living areas); however, thoughts of age-induced limited mobility were not necessarily considered when making the move to the suburbs. People sought “live-in-place” settings. “These who settled in the first suburbs are now expressing a desire to maintain their suburban existence.” (Rhoades, 1989, p. 2-3)

Communities planning would be well advised to include seniors in the process, and deal with issues such as building accessibility and transportation up front. Long-range planning

community assessment guidelines are recommended in creating age sensitive areas for seniors. (Howe, Chapman & Baggett, 1994)

EMS providers need to recognize the special and urgent care needs for emergency management and the proper treatment towards patients who are older. Providing emergency medical care to patients that are older is complicated and confusing, which can result in extraordinary courses of intervention. (Judd, 1989 p. 41)

With the population of patients who are older documented to increase dramatically in the next 30 years, one must ask how much education does a pre-hospital care provider need to competently, render patient care in the out-of-hospital environment? States individually determine how much EMS training for patients who are older must be undertaken before certification. Some states have included preliminary guidelines for initial training to patients that are older. The state of Ohio requires that continuing education for paramedics include a minimum of four hours every three years in “geriatric” training. In previous and current EMS curriculums, most of the training time is spent on learning how to handle most types of emergencies. Addressing the population of patients who are older remains a small part (one 3-hour session per class) of EMS training programs. Some observers have suggested that training could change to providers needing additional training as nurses did in the 1960s and 70s. This would encourage more specialization for the specific needs of patients that are older.

It appears that changes may be warranted involving attitudes towards non-emergency healthcare services and formal education in this subject. Research will play an important role in the future of emergency care providers as it is understood more fully how providers respond to an increase in responses on a certain population demographic. This research will involve understanding more fully the type of care needed in specific communities and this knowledge

may also determine what knowledge and skills providers will need to render proper care.

Attitudes towards service delivery may change the overall mission in most EMS organizations.

More emphasis may also be placed on injury or illness prevention. (Meade, 2000)

Demographics related to the aging population suggest that the demand for EMS services will increase well into the future. Future uses of emergency medical services will be directed by cost-effectiveness, changes in Medicare and insurance cost factors involving medical care, home care, and changes in death and dying, and less use of resuscitation efforts in terminal situations. Emergency care will be as important as ever in the very near future because of technological advances enhancing the patients who is older chances to survive. (Wofford, et al., 1995, p. 299)

There is no question that in the future, additional burdens will be placed on pre-hospital workers, because of this demographic shift. (Shifts in population are normally defined by disease rather than aging.) In 2030, one in every five Americans will be 65 years old as shown in Appendix 3. If patients who are older seek to utilize the EMS system, the system will have to have ways to develop methods to respond appropriately to their complaints. (Gerson & Skvarch, 1982, p. 612)

Questions in EMS care of patients that are older in the future may revolve around the stereotyping of older patients and the ethics of decision-making related to end-of-life issues. Other questions may revolve around whether EMS workers give patients who are older the kind of attention given to other demographic groups. Managing pre-hospital care workers by asking yourself, "What a reasonable person would do for these patients?" may be a start towards future evaluation needs and possible training or coaching programs. (Kinzel, 1991, p. 63) Our future will need a redirection related to patient care in some specific demographic areas.

## PROCEDURES

Research involved the use of two sets of statistics obtained from the Anderson Township Fire and Rescue Department's emergency response records. As a comparison point, responses to the three senior centers in this target study were calculated for the years 1992-1994 from logbook recordings. (Target areas of data collected on senior citizens were limited to three similar care facilities). Data was also compiled for responses to these centers in 2001-2003 through our FIREHOUSE Software® database. Information was calculated to determine what percentage of total care those figures provided for the Anderson Township Fire and Rescue Department. (Cases involving numerous responses on the same individual were used in the research).

Additionally, a survey was used to assess attitudes about providing care to residents of the three senior living facilities. Questions were shaped in a neutral manner and administered by a firefighter/paramedic to all EMS personnel who work at Station 6, the fire station directly serving these three senior area facilities. A sample population (25% of total department personnel) of firefighters was used as the survey participants. Included within these participants were firefighters, lieutenant firefighters and battalion chiefs, all of whom are currently certified paramedics in the state of Ohio.

Certain criteria parameters were established prior to initiating the study. 1) The participant would be assigned, or have recently been assigned, to the Beechmont fire station (Station 6). 2) Each survey participant would knowingly volunteer to be a part of the survey. No member would be forced into the study for any reason. 3) The survey was to be completely anonymous, and data collection was to be handled by a courier (firefighter) and not by Chief Mark Ober. All results submitted to Chief Ober were done so after the data was tallied and questionable data removed.

### **Definition of Terms**

<u>Attitude</u>	“A mental position with regard to fact or state, a feeling or emotion toward fact or state” ( <a href="http://www.merriam-webstercollegiate.com/cgi-bin/Eleventh">http://www.merriam-webstercollegiate.com/cgi-bin/Eleventh</a> )
<u>Baby Boomers</u>	“A marked rise in birthrate, as in the United States immediately following the end of World War II.” ( <a href="http://www.merriam-webstercollegiate.com/cgi-bin/Eleventh">http://www.merriam-webstercollegiate.com/cgi-bin/Eleventh</a> )
<u>Frequent Flyers</u>	A name widely used in the fire and EMS service referring to customers who use the service quite often.

### **Limitations of the Survey**

The survey given asked personnel to assess their own feelings toward certain job situations. A more sophisticated survey could perhaps be formulated by psychologists or statisticians, who could design questions in multiple ways to determine hidden feelings and attitudes. However, for the sake of this study, there may be little reason to believe that the personnel surveyed would have major reasons for hiding their own attitudes, since there was not any retributive element to participating or not participating in the survey and since the surveys were anonymous. In fact, the simple nature of the survey may have been most appropriate with firefighters, who in my personal experience generally tend to dislike paperwork and long, involved written assignments. It may be argued that a more sophisticated survey may have gained hidden attitudes, but in my estimation, the simplicity of this tool may actually have contributed to its validity.

Another factor that could have influenced the results of the survey was that the survey contained the name of the “chief.” If I had it to do over again, I would have left my name off the survey. In addition, the questions could have been organized into equal categories representing



fire situations, EMS situations and a category covering both. That way, feelings about fire-related situations could have been pulled out and analyzed separately.

## RESULTS

The data reviewed related to the two time-periods selected (1992-1994 and 2001-2003) proved that an increase in responses to the three senior assisted living centers, (SEM Manor, the New England Club and Asbury Woods) is substantiated.

After the data was collected, tallied and formatted onto a spreadsheet, an assortment of conclusions could then be calculated. Taken as a whole, the data results from initial estimation were to some extent not unexpected. Not unsurprising, a significant number of participants showed partiality towards firefighting and rescue category groups (80% or greater in Structure Fire and Entrapments categories). An even greater number of participants indicated no preference towards a majority of the categories. Overall, the category demonstrating the least amount of preference was Animal Rescue (53% in the Preferred Less or below). Again, this was no great surprise, but the greater majority of overall selections were in the No Preference, Prefer and Somewhat Prefer category ranges respectively (81%).

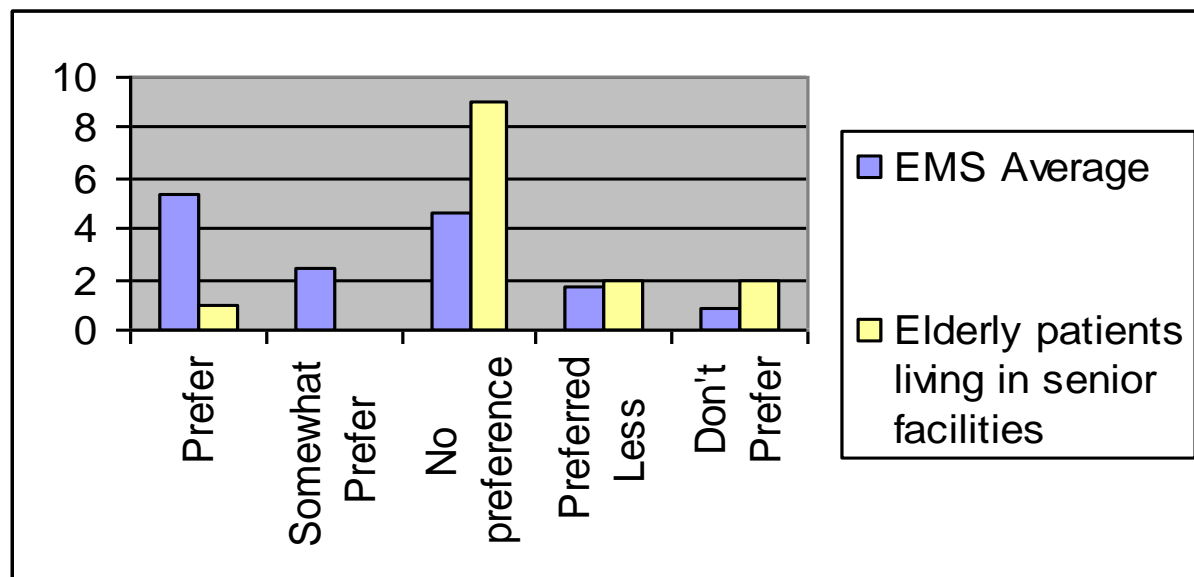
While no dramatic attitudes for or against working with older persons by Anderson Township EMS providers were uncovered by this attitude survey, the exercise in gauging job situation preferences was valuable in itself. It was not a surprise to learn that firefighter/paramedic personnel preferred working in structure fire scenarios and in rescue situations and less preferred other routine care-taking situations. It was also valuable to learn that overall, staff members held no significant negative attitudes about working with older persons or offering patient assistance.

One specific category of particular interest was attitudes towards geriatric responses. It was my hope to draw varying conclusions about EMS and patients who are older. The data was separated into two groupings. The first grouping was singularly exclusive to geriatric responses. The second grouping was the average of all the remaining categories. The two data groups were

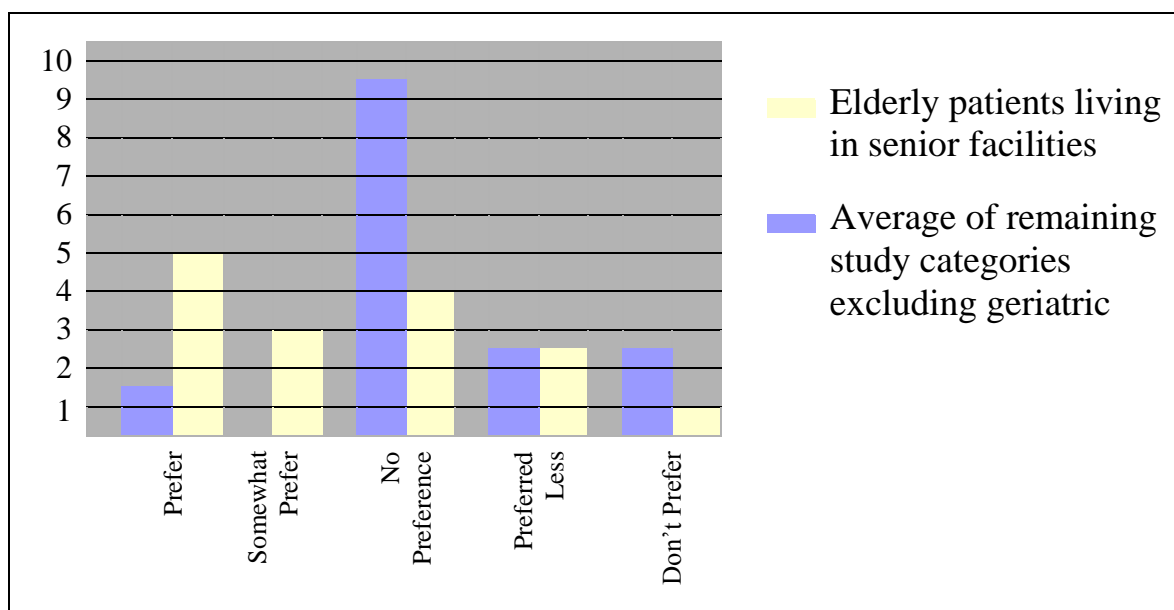
then compared using a chart. The following “Table 3” is the result of this particular survey grouping.

**Table 3**

EMS Average vs. Geriatric Responses



The columns in purple represent the *average* of all categories with the exception of the geriatric category. For example, “Table 4” does not demonstrate that Structure Fire responses was chosen the most preferred category group, but did play a noteworthy role in achieving the rating seen above. The next table grouping involves categories, which predominately are termed “EMS” responses, and cannot be mistaken for “fire” responses. The goal here was to compare “apples-to-apples” and so forth. We were trying to establish whether the general attitude towards EMS was similar to geriatric responses, or if a difference could be established. The following is the result of this grouping.

**Table 4***Geriatric Response vs. EMS General Average*

The following “Table 5” is the baseline percentage spreadsheet for data collected:

**Table 5***Baseline Percentage Spreadsheet*

Type of Responses	Prefer	Somewhat Prefer	No preference	Preferred Less	Don't Prefer
Accidents on the expressway	53%	20%	20%	7%	0%
Animal Rescue	0%	13%	33%	33%	20%
Coney Island EMS	13%	0%	53%	13%	20%
Elderly patients living in senior facilities	7%	0%	60%	13%	13%
Entrapments	80%	7%	13%	0%	0%
Heart attacks	53%	27%	13%	7%	0%
Motor vehicle accidents	47%	27%	13%	13%	0%
Patient assist	0%	20%	47%	20%	13%
Riverbend & River Downs	7%	13%	47%	27%	7%
School responses	7%	13%	60%	20%	0%
Sick Person	13%	27%	40%	20%	0%
Structure fires	87%	13%	0%	0%	0%
Water-related calls	13%	53%	33%	0%	0%

## **DISCUSSION**

For my organization, the value of this research project may be more helpful in allowing me to prepare for the future of my EMS delivery system and in fine-tuning customer service issues related to this demographic. Several years ago, another chief in Anderson Township proposed a service delivery scenario during normal business hours that would involve two EMS workers who would be assigned to provide transport for senior citizens in the community. This service could be paid for through insurance or self-pay. After realizing how many responses will be made for routine back-to-bed or simple transport kind of services to senior citizens in the future, I have revived this idea for consideration.

Also, one of my goals is to make the chiefs in my area more aware of the need for further training on this growing demographic, as I believe only a few hours of paramedic training will be insufficient as this population increases. From this study, I have contemplated the future of my EMS staff members and been provoked to evaluate their level of service delivery and attitudes toward our customers. Even though results did not prove there was a problem, it was a valuable exercise to learn that staff members (in their core attitudes) were generally not hostile toward working with these patients.

## RECOMMENDATIONS

From my research into EMS issues as they relate to older persons, I have come away with an increased understanding of what the future may hold for EMS, fire and rescue services. The growing number of older persons will influence delivery of services, and as more people live longer and try to remain independent longer, EMS workers will see their roles adjust.

The issue of care delivery to older persons should be a concern for fire and rescue departments all over the country. As “Boomers” gray and increasingly live longer and independently for more years, EMS services will be increasingly called to provide a variety of services for this larger population. Fire/EMS administrators would be well served to consider the implications of this growing demographic when planning for the service delivery in the future. Issues to be considered could be further training for EMS service providers and the seniors themselves who utilize the service. This training may include the “GEMS” course. The Geriatric Education for Emergency Medical Services (GEMS) course was developed through a consensus of experts in emergency medical services and geriatric medicine. The GEMS course content also addresses the geriatric objectives as identified in the National Highway Traffic Safety Administration (NHTSA) National Standard Curricula. (Jones and Bartlett 2003)

The main reason this research project was undertaken was related to the comments I have heard from staff members who have made repeated responses to senior care facilities. In measuring their attitudes, I learned that my personnel actually held overall positive or neutral feelings about dealing with older persons (and other job situations in general). From my research, I was reminded that my internal customer is one of my most valuable resources and it is important to know whether there is a problem within this customer base. Fire administrators could consider the impact of increased call loads in their own communities as the population

shifts. Fire administration officials should be actively involved in planning for the future of communities as it relates to service delivery for older persons. My suggestion would be that fire and EMS administrators look over and beyond immediate care, delivery concerns and develop strategies to move us out of our old norm, which is dial 911 and transport. A new paradigm would include not only immediate care, but also a shift in thinking that would allow fire and EMS to be involved (or initiate the process) in the process of helping seniors who are “frequent flyer” users of the system. In many cases, we only deliver an immediate emergency service and then walk away. In a new paradigm, we could be involved in the initial stages of directing short and long-range non-emergent care since we may be the only caregivers seeing this person on a regular basis.

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## APPENDIX 1-ATTITUDE SURVEY

### ATTITUDE SURVEY

This survey is being conducted as part of Chief Mark Ober's (OFE) executive training class. The goal of this survey is to measure attitudes about different kinds of paramedic responses. Please answer these questions honestly and to the best of your ability. Results are strictly anonymous. Your help and candid response is greatly appreciated and will help the Chief complete the requirements for his course.

#### INSTRUCTIONS:

Please answer the following survey questions based on your own attitudes toward your job. Only **ONE** category should be marked for every question.

Please provide a response to each paramedic situation listed. Five categories are used in ranking your feelings, from the highest level of preference to the lowest level of preference.

**Only one category should be marked for every situation.**

Type of Responses	Prefer	Somewhat Prefer	No Preference	Preferred Less	Don't Prefer
Accidents on the expressway	8	3	3	1	
Animal Rescue		2	5	5	3
Coney Island EMS	2		8	2	3
Elderly patients living in senior facilities	1		9	2	2
Entrapments	12	1	2		
Heart attacks	8	4	2	1	
Motor vehicle accidents	7	4	2	2	
Patient assist		3	7	3	2
Riverbend & River Downs	1	2	7	4	1
School responses	1	2	9	3	
Sick Person	2	4	6	3	
Structure fires	13	2			
Water-related calls	2	8	5		

## APPENDIX 2 – A PROFILE OF OLDER AMERICANS 2002

“The older population--persons 65 years or older--numbered 35.0 million in 2000 (the most recent year for which data are available). They represent 12.4% of the U.S. population, about one in every eight Americans.”

“The number of older Americans increased by 3.7 million or 12.0% since 1990, compared to an increase of 13.3% for the under-65 population. However, the number of Americans aged 45-64 – who will reach 65 over the next 2 decades – increased by 34% during this period.”

“In 2000, there were 20.6 million older women and 14.4 million older men, or a sex ratio of 143 women for every 100 men. The female to male sex ratio increases with age, ranging from 117 for the 65-69 age group to a high of 245 for persons 85 and over.”

“Since 1900, the percentage of Americans 65+ has more than tripled (4.1% in 1900 to 12.4% in 2000), and the number has increased eleven times (from 3.1 million to 35.0 million). The older population itself is getting older. In 2000, the 65-74 age group (18.4 million) was eight times larger than in 1900, but the 75-84 group (12.4 million) was 16 times larger and the 85+ group (4.2 million) was 34 times larger.”

“In 2000, persons reaching age 65 had an average life expectancy of an additional 17.9 years (19.2 years for females and 16.3 years for males).”

“A child born in 2000 could expect to live 76.9 years, about 29 years longer than a child born in 1900. Much of this increase occurred because of reduced death rates for children and young adult.

However, the past 2 decades have also seen reduced death rates for the population aged 65-84, especially for men – by 19% for men aged 65-74 and by 16% for men aged 75-84. Life

expectancy at age 65 increased by only 2.4 years between 1900 and 1960, but has increased by 3.7 years since 1960.”

“Over 2.0 million persons celebrated their 65th birthday in 2000 (5,574 per day). In the same year, about 1.8 million persons 65 or older died, resulting in an annual net increase of approximately 238,000 (650 per day)”.

“There were 50,545 persons aged 100 or more in 2000 (0.02% of the total population). This is a 35% increase from the 1990 figure of 37,306”.

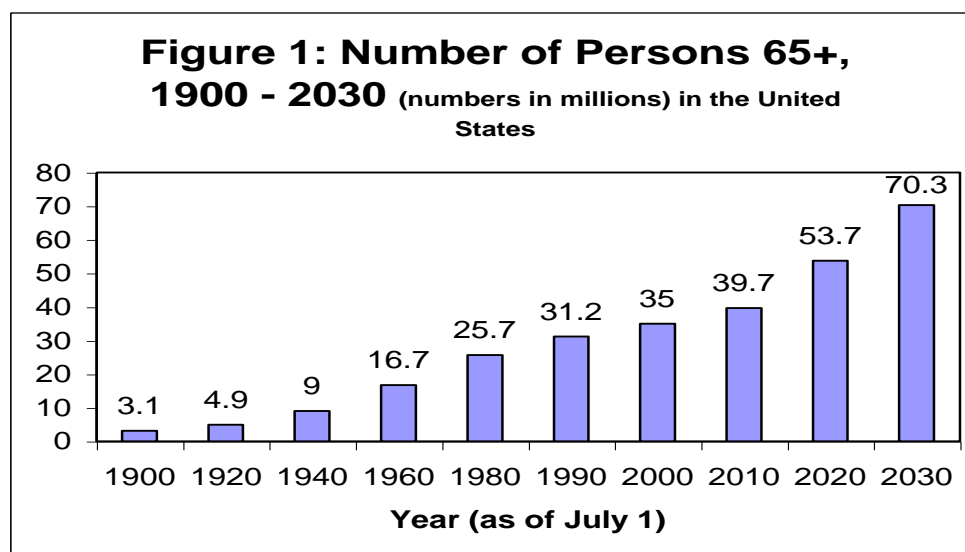
(Data for this section was compiled primarily from Internet releases of the U.S. Bureau of the Census and the National Center for Health Statistics).

### APPENDIX 3 – OLDER POPULATION

“The older population will continue to grow significantly in the future (see Figure 1).

This growth slowed somewhat during the 1990's because of the relatively small number of babies born during the Great Depression of the 1930's. Nevertheless, the older population will burgeon between the years 2010 and 2030 when the "Baby boom" generation reaches age 65”.

“By 2030, there will be about 70 million older persons, more than twice their number in 2000. People 65+ represented 12.4% of the population in the year 2000 but are expected to grow to be 20% of the population by 2030”. (Sources: “Projections of the Total Resident Population by five Year Age Groups, Race, and Hispanic Origin with Special Age Categories: Middle Series, 1999 to 2000,” U.S. Census Internet Release Date: January 13, 2000 with "Population Projections of the United States by Age, Sex, Race and Hispanic Origin: 1995-2050," Current Population Reports, P25-1130. Data for 2000 are from the 2000 Census.)



*Note: Increments in years are uneven. Based on data from the U.S. Bureau of the Census.*