

Running head: RISK REDUCTION FOR FALLS IN THE ELDERLY COMMUNITY

Community Risk Reduction Process to Identify Falls in the Elderly Community

Jeffrey R. Stien

Rockton Fire Protection District

Leading Community Risk Reduction R-280

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CERTIFICATION STATEMENT

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

Signed: _____

Abstract

The Rockton Fire Protection District's problem is it does not have a risk reduction process to identify falls in the elderly community. The purpose is to develop a risk reduction process to identify why falls occur. Action research was performed. Research was done by literature review and interviews of extended care facility directors and coordinators. What do agencies outside the fire service use for risk reduction processes? What do similar sized fire departments use for risk reduction processes? What should the Rockton Fire Protection District incorporate into their risk reduction process? The elderly population is growing and falls within this population are common. A risk reduction process to identify why falls occur has been developed to address this issue.

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Introduction

According to the National Center for Injury Prevention and Control (n.d.a) 1 out of every 3 persons age 65 and older fall each year in the United States. Many of these falls result in injury and or death. Many of these falls can be prevented by the use of risk identification.

The problem is that the Rockton Fire Protection District does not have a risk reduction process to identify falls in the elderly community resulting in a number of our citizens being injured.

The purpose is to develop a risk reduction process to identify why falls occur in the elderly community. Action research was conducted to develop a risk reduction process.

What do agencies outside the fire service use as a risk reduction process to identify falls in the elderly community? What do similar sized fire departments use as a risk reduction process to identify falls in the elderly community? What should the Rockton Fire Protection District incorporate in their risk reduction process to reduce falls in the elderly community?

The mission of the fire service is to save lives and protect property but this does not mean just to fire related injuries. Who better than the fire service to be the leaders in community risk reduction? The above questions have been addressed after an extensive literature search and interviews of various non-profit and for profit organizations, both in and out of the fire service.

Background and Significance

The Rockton Fire Protection District operates from one station covering 54 square miles and has an approximate 15,000 population. The district is 40% urban and 60% rural. The run volume is 850 calls a year and of those 62% are strictly medical, 13% fire, and 25% combination such as car accidents and rescues. Call volume increases 7 to 9% a year.

According to Village of Rockton (n.d.) statistics the population within the village in 2000 was 5,296 and the estimated population by 2003 is 7,254. The village is 3.4 square miles. Of this population it is estimated that 10.7% are of the age 65 years or older.

Historically and generally, a fire department's mission was to protect property and save lives. This included various fire prevention programs. Smoke alarm programs, Exit Drills in the Home, and firefighter safety are a few examples of prevention programs.

The Rockton Fire Protection District handles fire calls along with emergency medical services. The department has 2 advanced life support ambulances. The majority of calls the department responds to are medical calls. There are no risk reduction programs in place to address reducing medical calls even though this is what the Rockton Fire Protection District deals with most of the time. It is time to be proactive in identifying risk areas and developing processes and programs to address these risks.

Starting in 2002 statistics were roughly tallied to gather data about types of medical calls. Table 1 shows the breakdown of medical calls as well as combination calls in which medical care was needed.

Table 1

Cause of Medical Calls

| Cause | 2002 | 2003 | 2004 | Totals |
|------------------------|------|------|------|--------|
| No cause specified | 57 | 90 | 88 | 235 |
| Other cause | 94 | 135 | 87 | 316 |
| Medical illness | 208 | 234 | 265 | 707 |
| Pepper spray | 0 | 0 | 2 | 2 |
| Chemical exposure | 5 | 1 | 0 | 6 |
| Drug poisoning | 8 | 3 | 7 | 17 |
| ETOH | 0 | 0 | 2 | 2 |
| Falls | 86 | 61 | 79 | 226 |
| Bites | 1 | 2 | 0 | 3 |
| Bicycle accident | 3 | 5 | 5 | 13 |
| Electrical shock | 1 | 0 | 0 | 1 |
| Heat | 3 | 0 | 0 | 3 |
| Fire and flames | 1 | 1 | 1 | 3 |
| Machinery | 0 | 3 | 0 | 3 |
| Motor vehicle accident | 89 | 91 | 83 | 263 |
| MVA/pedestrian | 1 | 0 | 0 | 1 |
| Off road accident | 2 | 3 | 4 | 9 |
| Boat accident | 0 | 0 | 1 | 1 |
| Physical assault/abuse | 18 | 9 | 7 | 34 |
| Scalds/other thermal | 1 | 0 | 0 | 1 |
| Smoke inhalation | 0 | 0 | 0 | 0 |
| Stabbing assault | 0 | 2 | 0 | 2 |
| Venomous sting | 1 | 5 | 0 | 6 |
| Unknown | 11 | 3 | 2 | 16 |
| Total | 590 | 648 | 632 | 1870 |

Strictly looking at medical causes for medical illness calls, other cause calls, motor vehicle accidents and no cause specified calls minimal risk reduction or prevention can be conducted. Falls comprise of an average of 12.09% of calls over the past 3 years, and are a preventable risk. Ninety percent are in the 65 years and older age. With the aging population there is a need to develop a process to identify falls in the elderly community.

The major goal of the Leading Community Risk Reduction course was to get involved with the community, to build community equity, and to reduce the frequency of impact of preventable risk on individuals of the community. Developing a risk reduction process to identify falls in the elderly community would reduce stress, pain and monetary strain to the individual and their families.

We as the fire service should be the leaders in the community promoting risk reduction. The fire service deals with individuals of the community every day and they are our customers. The community comes to us for answers to any questions they may have. What better way to gain community equity than to increase the community awareness to risk reduction?

A proactive approach to risk reduction makes the Rockton Fire Protection District respond appropriately in a timely manner to the issue in injury prevention in a non-fire related attitude. Typically, the fire department mindset has been to deal with fire prevention as opposed to expanding into medical related risk reduction even though emergency medical calls greatly outnumber the fire calls.

Literature Review

The United States Department of Health and Human Services Administration on Aging published: A Profile of Older Americans: 2003. This study showed that the older

population, aged 65 and older, was 35.6 million in 2002, a 10.2% increase since 1992.

By the year 2030 the older population is estimated to more than double to 71.5 million.

Table 2 shows statistics by the National Center for Injury Prevention and Control (n.d.b) the number of injuries and death to anyone 65 years and older for the nation and for the state of Illinois.

Table 2

Unintentional Fall Nonfatal and Fatal Injuries

| <u>Year</u> | <u>Number of injuries</u> | <u>Number of deaths(USA)</u> | <u>Number of deaths(Illinois)</u> |
|-------------|---------------------------|------------------------------|-----------------------------------|
| 1999 | No Data | 10,097 | 358 |
| 2000 | No Data | 10,273 | 327 |
| 2001 | 1,642,135 | 11,623 | 368 |
| 2002 | 1,638,883 | No Data | No Data |
| 2003 | 1,822,157 | No Data | No Data |

The numbers reported for injuries are patients that actually went to the hospital for treatment. Falls are common events for older adults. It is important to identify risk factors before doing prevention programs. Some of those risk factors include a history of falls, impaired vision, increased age, cognitive impairment, medications, lighting, loose rugs and fatigue (Lueckenotte, 1996).

Weiss, Chong, Ong, Ernst, and Balash (2003) examined emergency medical services (EMS) screening elderly falls in the home. Many of the fall identification studies that are performed take place in a nursing home or other care facility. EMS providers are usually the first interaction elderly fall victims will have if they live at home. The purpose of the study was to see if it was feasible to gather injury prevention data due to falls and if EMS

providers could play an active role in injury prevention. There was a checklist developed consisting of 29 data points addressing environment, appearance, health, violence, access to help and repeat medical care. This study reports that EMS providers can assist in elderly fall prevention by collecting this data. The results from the study showed that many of the environmental conditions of the homes could easily be fixed, can help with appearance and health issues to reduce risk.

Sattin, Rodriguiz, DeVito, and Wingo (1998) completed a study that looked at home environmental hazards and the risk of falls to the elderly. The study compared a control group, aged 65 and older that had not fallen at home and had been selected randomly, and a case group. The case group was 65 and older and had fallen and received treatment at a hospital. Both study groups had common hazards. The study reported there was no increase risk of a fall in dwelling units that had tripping hazards, poor lighting and poorly placed cabinets when compared to the control group. There was an increase in the number of falls in dwellings with throw rugs, cords and wires when compared to the control group. The study suggests that the current fall prevention programs and environmental hazard changes might not have as big an impact as previously thought.

Woffard, Heuser, Moran, Schwartz, and Mittlemark (1994) reported that expanding roles of EMS by using collected data from whose computerized data can help in identifying falls in the elderly community. There is no easily standardized data source for tracking falls for the elderly.

Heifetz and Linsky (2002) talk about change and being proactive. It is time for the fire service to change their mindset to not limit themselves to just fire prevention but to expand aggressively into injury prevention.

The Leading Community Risk Reduction course describes 5 risk reduction strategies engineering, education, enforcement, economic incentives and emergency response (National Fire Academy [NFA], 2003.) Engineering can be used to develop proprietary or mechanical designs, Education to raise awareness, Enforcement to gain compliance, Economic incentives used as incentives or deterrents to change a given behavior and Emergency Response to use of emergency service agencies to mitigate the risk.

Royer (2002) describes a proactive approach to risk reduction. There are 5 processes for developing risk management. Those processes are Initiating, Planning, Executing, Controlling and Closing.

Initiating begins by getting support and commitment for the project. Planning is establishing a plan to accomplish the project. Executing involves coordinating personnel and resources. Controlling is monitoring and measuring progress of the project. Closing is a formal completion of the project.

Wideman (1992) states there are modes to the risk process. The first is a crisis management or reactive mode, this entails reacting to events as they present themselves. The second mode is a proactive mode which incorporates planning for risks before they occur to minimize damage or harm. Wideman has a 4 phase approach. The 4 phases are identification of all risks, assessment, completing a priority or ranking list, responding by developing a strategy to manage those risks and documentation to build reliable data to be used on future projects.

There is a consensus that the elderly population is growing rapidly and that falls among the elderly are common. The fire service does many fire prevention programs but there is not the emphasis placed on injury prevention programs or identifying the need for these programs. The numbers of fire calls have decreased while the numbers of EMS calls have increased. Much of what the fire service does today results from about 70% EMS calls. There is a lack of reliable data to identify why falls happen in the elderly community. EMS can develop a process to collect data in identifying falls with the elderly and then develop a risk reduction program for injury prevention. The fire service needs to take a proactive approach to this issue and to develop a risk reduction process for identifying falls with the elderly and that process should include identification, assessment, response and documentation.

Procedures

The action research method was used. This was a complete analysis of what was happening currently with the Rockton Fire Protection District's risk reduction program. Initially the program was examined to see if there was a problem. The problem unveiled at the Rockton Fire Protection District was the absence of a risk reduction process to identify why falls occur with the elderly community even though it consists of 12.09% of the emergency medical calls.

Extensive literature research was performed using the local library, the fire department library, fire publications and or magazines and Internet searches. Most of the research was non-fire related material. Most of the Internet searches were directed towards specific groups such as the National Center for Injury Prevention and Control and Department of Health and Human Services, which were contacted directly for publications to aid in the research. Searching was done in a fashion to not only look at fire related material but also to look at studies done by non-profit organizations or businesses.

Fire departments contacted for interviews were picked based on their similarities to RFPD from a list of area departments. The departments selected for the interview process included: Beloit Fire Department (BFD), a full time department that ran more calls than Rockton. Byron Fire Protection District (Byron), a combination department that is about the same as Rockton for call volume, Harlem Roscoe Fire Protection District (HRFPD), a combination department with twice as many personnel and twice as many calls, South Beloit Fire Department (SBFD), a combination department with about the same amount of volunteers as Rockton and with more calls. The reason for the

departments selected for the study was to show their similarities to Rockton Fire Protection District. Looking outside the fire service the American Red Cross (ARC), nursing homes in the area such as River Bluff Nursing Home, Highview in the Woodlands and the Coordinator of Beloit Safe Community Coalition were interviewed. See Table 3 for comparison.

Table 3
Comparison of Departments

| Department | Fire and EMS Staff | | Number of Calls (Ave.) |
|--------------------|--------------------|-----------|------------------------|
| | Career | Volunteer | |
| American Red Cross | 3 | 150 | NA |
| Beloit | 60 | 0 | 6900 |
| Byron | 11 | 30 | 1051 |
| Harlem Roscoe | 2 | 60 | 1700 |
| Rockton | 4 | 35 | 850 |
| South Beloit | 4 | 27 | 1000 |

Volunteer versus full time staffing was examined to see the differences in risk reduction processes developed. The interviews were conducted over the phone primarily to see the degree in which department or business was involved and to get a contact person to complete the interview with. The interviewee was the individual in charge of the handling or in the implementation of the fall reduction process. Once interviewees were determined each interview was done face to face at their corresponding facilities

and each lasted about an hour. To see the interview questions, refer to Appendix A. The questions dealt with the need for a fall risk reduction process, how that need was determined, how the fall identification process was developed and implemented, what models were used to make the process, what was done to get support for the process and evaluation after implementation.

Results

What do similar sized fire departments use as a risk reduction process to identify falls in their community? The Beloit Fire Department, Byron Fire Protection District, Harlem Roscoe Fire Protection District, South Beloit Fire Department and American Red Cross were contacted by phone. These departments were asked if they had a risk reduction process that they were using to identify falls in their elderly community. All interviewees indicated that there were no processes in place but were interested in looking at developing one in the future. The area fire departments stated that they concentrated on fire prevention and if any of their staff were at a call they would suggest recommendations to fall victims but no statistical information was being kept for identification of why falls occur.

What do agencies outside the fire service use as a risk reduction process to identify why falls occur in their elderly community? When River Bluff Nursing home, Highview in the Woodlands and the Beloit Safe Community Coalition were contacted it was found that each has a process that has been developed and implemented. The following interviews yielded productive results.

Personal Communications

G. Woodard, RN.

Woodard is the Unit Coordinator, equivalent to an Assistant Director of Nursing, at the River Bluff Nursing Home. There were 62 residents on Woodard's unit ranging all levels of physical and mental capacities. The state of Illinois requires nursing homes to develop and implement an injury prevention program due to the high probability of fall injuries in this type of facility. The River Bluff Nursing home created a committee to examine current forms that were available by the state and to brainstorm what additional criteria would be specific for their facility. Participants of this committee included the medical director, interdisciplinary team, nurses, certified nursing assistants and social services. The process developed was a basic assessment tracking form that each new resident has completed for them. It covers cognitive patterns, hearing patterns, vision, behavior patterns, psychosocial well-being, physical function, continence in last 14 days, disease diagnosis, health conditions, nutritional status, medications and special treatments. After admission this assessment is re-evaluated every 3 months. Also, the nursing home completes a resident care plan. This is an expansion of the primary assessment. The resident care plan looks at personal hygiene, ambulation, safety devices such as bed rails, nutrition, speech and respiratory therapy. The care plan is reassessed every 3 months. The nursing home talks to the resident's doctors and family and looks at their previous history and rehab assessment.

The buy in process was fairly easy because even though there is a lot of paperwork up front in the long run it makes the jobs of the nurses easier, safer, and helps influence less injuries to both staff and resident. The staff members do not like making decisions

themselves and trust what the unit coordinator requires to be completed. There is a great sense of respect for the ranks.

The process is evaluated daily by visually observing the residents and comparing them to their initial assessment. Woodard states that there has been a significant drop in injuries due to falls, up to 75% reduction, for the 6 years she has worked there. Most of the falls that occur after the initial assessment when a resident is admitted, Woodard feels, there are only 5% be preventable. This is because most of the risk reduction took place with the initial and ongoing assessments of a resident. Besides the evaluation River Bluff has no throw rugs and no clutter policies at all times.

D. Luety, LPN

Deb Luety is the Director of Nursing at Highview in the Woodlands, a sheltered care facility. This facility deals with residents aged 65 to 95 years old. The state of Illinois regulates that a sheltered care facility must have an injury prevention program. The process is mainly used for the Alzheimer's wing and for personal safety.

The process was developed by the Quality Improvement committee by creating a list from brainstorming possible as to the reasons residents fall. They prioritized the results and fashioned the results to their specific facility. All department heads, the administration, social services, maintenance personnel, the physician, the pharmacy consultant and an expert in the area of evaluation were involved in developing the process.

Buy in from the staff was easy because there was no plan in place before and there was a great need for it. The plan was implemented in all units. Many of the staff believed it was easier to prevent injury than to mitigate injuries.

There is a quarterly review of each residence and a monthly safety committee meeting to discuss falls that had occurred and what could be done to prevent those incidents. According to Luety there has been a 50% reduction in falls since this program started. Upon admission each resident has a fall risk assessment completed. The assessment includes mental status, fall history, ambulation, balance, blood pressure, medications and predisposing diseases. These areas are given numeric scores, which are totaled, and anything 10 and above indicate a high risk. A follow up fall evaluation is completed and discussed at the safety meetings.

Luety believes that 70% of all falls, prior to the assessment, are preventable with safety features in place such as wearing good shoes, having no clutter, having no throw rugs and monitoring medications.

L. McMillan, Coordinator

Lori McMillan is the coordinator for the Beloit Safe Community Coalition in Wisconsin. In 2001 the city of Beloit did a needs assessment of hazards in the city. It was determined that falls in the elderly community was ranked number 1 so there was a need to address this issue. A committee to examine falls was developed and they had brainstorming meetings with nursing homes, fire departments and the Rock County health services. They also held focus groups with scenarios for causes and ideas for injury prevention.

The program was implemented by finding a best practices idea as to what others had done and had received a grant for the study. Buy in to the program was slow but because of the results of the risk assessment, injury prevention soon took off. The process is evaluated every 5 years due to budgetary and time constraints.

The success of the process has not been determined as of yet. A needs assessment must be completed. An increase in injury prevention awareness has been observed. A flyer with a fall prevention checklist has been distributed. Some of the items on the flyer include monitoring medications, eyesight, poor lighting, throw rugs, clutter, cords, balance problems and solutions for those issues.

McMillan believes, and as a result of their studies, that 50% of all falls are preventable. The process that the Beloit Safe Community Coalition uses was developed from scratch and no other models were used.

What should the Rockton Fire Protection District incorporate into their risk reduction process to reduce falls in the elderly community? The Rockton Fire Protection District will develop and implement a risk reduction process to identify falls in the elderly community by using aspects from not only information from the literature search and findings but will also include particular material from information collected during the interviews. Continual evaluations will be used to determine program effectiveness. The completed process can be reviewed in Appendix B.

Discussion

Compared to the National Center for Injury Prevention and Control (n.d.b.) the Rockton Fire Protection District has twice as many injuries due to falls then the national average, 5.1% versus 12.09% respectively. Deaths due to falls are unable to be compared due to the fact there has been no follow up by the fire department to find out the prognosis once the patient has been released to the hospital.

The United States Department of Health and Human Services (2003) says the population for persons 65 years of age and older will double by the year 2030. The

village of Rockton has 33.8% of its population between the ages of 25 to 64 where as 19.9% are 65 years of age and older. If this is true, in 2030 the population of persons aged 65 or older will have almost doubled because the people who are 35 now will be in the 65 and older category.

Weiss et al. (2003) states that many injury prevention studies for the elderly are focused on community based care facilities and that emergency medical services could be useful in compiling data and providing injury prevention. Wofford et al. (1994) states with the advancement of computerized data that falls among the elderly community could be tracked and prevention programs could be developed. When area fire departments were asked if they have a process to identify injuries due to falls for the elderly many replied that they did not. Sure there are smoke alarm programs, get out and stay out programs and some even offered car seat inspections but no fall prevention programs were in place. Most of the prevention done by fire departments is fire based to reduce to prevent injuries due to fires, but none addressed the fact that most of the calls that fire departments respond to are emergency medical calls. We as departments have a lot of interaction with the community where we could educate the community. By doing this, we could prevent injuries instead of mitigating incidents, thereby relieving stress, pain and cost that an individual or family could incur.

Sattin et al. (1998) conducted a study utilizing information from other studies showing why the elderly fall. Causes included including throw rugs, poor lighting and other tripping hazards. What was unique about this study and different from other studies was the fact that they compared their results versus a control group. One group was the group that fell and the control was the group that had not fallen. When hazards were examined

both groups had similar hazards present. What they found was that there was only an increase in falls when there were loose throw rugs, cords or wires, grab bars and slip resistant surfaces in the home. This was fascinating because many of the articles researched say the above hazards are some of the reasons why the elderly fall. A proactive approach should educate about all hazards in the home and not be reactive when a study shows this is a cause of falls and then educate the elderly about the hazard.

Woodard and Luety discussed that they are mandated by the state of Illinois to have an identification process for the reduction of falls and that many person were involved in that development. Buy in was slow but was easily gained when the program was spelled out. There was a consensus to prevent injury and suffering to their community. Many of the employees thought it made their jobs easier to educate and evaluate then it was to treat and rehabilitate.

When looking at the mission for the fire service, to safe lives and protect property, the undertaking of incorporating injury prevention into risk reduction should not be difficult. Getting personnel to strongly participate in the identification process will not be that difficult. This is because many of the personnel would like to educate the community and to build community equity rather than to just take a person to the hospital because they are hurt. The time commitment will be about 10 minutes additional for each incident just for questioning of the patient. Once enough data is collected on why the elderly fall a prevention program can then be developed. The study clearly shows there is a need for such a risk reduction process for the Rockton Fire Protection District.

Recommendations

The following is recommended for the Rockton Fire Protection District: establish a risk reduction process to identify why the elderly community falls by using a combination of the 5 risk reduction strategies, the 5 processes for developing risk management and the 4 phase approach to a risk process. Following these, evaluate the process and results from the data collected and adjust the process accordingly. Once a strong process is been in place and enough data is collected, an injury prevention program can be developed.

Developing a fall identification process is self-explanatory. It will gather data of the hazards present in the home or the disabilities a person may have that can cause them to fall. The reasons for developing this process is due to research that has been done outside of the fire service and minimally within the fire service, and that EMS providers and the data they collect could be a reliable source to compare with the fall data collected from nursing homes or assisted living facilities. Continued collection of data is needed so trends can be extrapolated.

In conclusion, falls in the elderly community cause great pain, monetary responsibility, and possibly death to the individual and or to their families. The elderly population will only continue to grow. It is important that the fire service takes a proactive approach to risk reduction in each of their respective agencies. It is easier to recognize an issue and to approach it than it is to treat it when it becomes an emergency.

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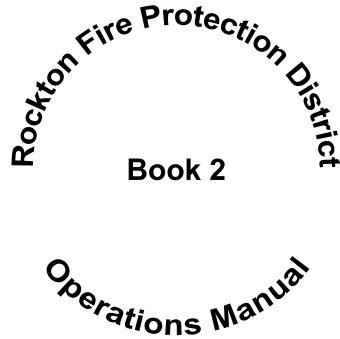
Appendix A

Rockton Fire Protection District

Interview Questions

1. What was your need to develop a risk reduction process to address falls with the elderly?
2. How was this process developed?
3. Who was involved in developing this process?
4. How was this process implemented?
5. How did you get buy in from your staff to support this process?
6. How is the process evaluated?
7. Compared to your need has there been a significant impact on reducing falls with the elderly?
8. What check off lists or other tools do you use in identifying hazards for falls in the elderly?
9. What hazards did you identify as being risks and of those what percentage did you feel were preventable?
10. What models did you use in the development of your risk reduction process to reduce falls in the elderly?

Appendix B



| | |
|-----------------|--|
| Date: | January 15, 2005 |
| Chapter: | Operations |
| Subject: | Risk Reduction Fall Identification for the |
| Code: | 2-II-16 |

Purpose: To develop a risk reduction process to identify why falls occur in the elderly community.

Policy: The Rockton Fire Protection District shall establish and maintain a risk reduction process to help identify why falls occur in the elderly community.

Objective: To reduce the amount of falls to the elderly community.

- Responsibility:**
- A. The Fire Chief shall identify members and a Chairman for the Risk Reduction Committee.
 - B. The Fire Chief shall establish and maintain a risk reduction process to collect data to identify why falls occur in the elderly community.
 - C. The Emergency Medical Services Coordinator shall keep quarterly statistics and complete yearly written reports to the Fire Chief.
 - D. All ambulance personnel shall complete surveys and inspections at all incidents where an elderly person has fallen and forward to the Risk Reduction Chairman.
 - E. All personnel of the Rockton Fire Protection District shall be familiar with the procedure.

Procedure: Initiating

- A. The Fire Chief shall show there is a need for the process by providing data that supports the large number of incidents of falls with the elderly and making reference to the Rockton Fire Protection District’s Mission statement that includes risk reduction. The vision would be to reduce the amount of falls and injuries to the elderly community by identifying why they occur.
- B. The Chairman of the Risk Reduction Committee shall report to the Fire Chief. The committee will develop a risk reduction process to identify why falls occur with the elderly. Final approval will come from the Chief. The committee will examine cost versus benefit of the process. Time commitment is high but the process will lay groundwork for future risk reduction processes and programs.
- C. The Emergency Medical Services Coordinator will educate all medical personnel of the process in a manner to gain support.

Identification and Planning

- A. The Risk Reduction Committee shall identify what hazards cause the elderly to fall. These hazards will be identified from literature searches and current injury prevention lists available from local fall prevention brochures. The frequency of those corresponding events shall be examined. A check off list will be used by the medical staff during the incident.
- B. All medical personnel will be educated to the many possibilities of risks of why elderly fall. They will look for engineering modifications at the residence such as grab bars and emergency response interventions to help mitigate the incident.
- C. List of possible hazards

| <u>Intrinsic factors</u> | <u>Environmental Factors</u> |
|-------------------------------|--|
| Vision and hearing impairment | Slippery or wet floors |
| Slow reflexes | Loose carpets or rugs |
| Decreased balance | Poor lighting |
| Joint pain | No handrails on stairs, bathrooms or toilets |
| Physical disability | clutter |
| Alcohol or medications | loose wires or cords |

Assessment and Executing

- A. Risks need to be assessed to determine impact and what can be done to decrease or eliminate the risk factor.
- B. The personnel involved with the process need be assess the process regularly to determine if the process is executing properly and completing the goal. The Chairman will ensure this is taking place yearly.

Response

- A. The medical personnel will do a survey and inspection at each fall incident involving an elderly person. The medical personnel will report to the committee the reason for the fall using the above list. If no determination can be found it shall be reported as such and any additions to the list shall be reported. The personnel shall report possible risks even though they might not have caused the fall.
- B. Paperwork will be given to the Risk Reduction Chairman for review and discussion for compiling data.

Evaluation and Review

- A. The Risk Reduction Committee will ensure the process is effective and achieving its goals. If it is not modifications will be made. The process needs to be sustainable, measurable, achievable and timely. The data collected will be compiled to build reliable results and trends.
- B. An injury prevention program will be developed.