Decision Brief:
Virginia Falls Prevention Coalition and Virginia Arthritis Coalition Merger

Background:

Falls and Fall Related Injuries:

With 30% of people over the age of 65 falling each year, falls and their related injuries are a growing public health issue.[1] According to the Centers for Disease Control and Prevention (CDC), falls are the leading cause of fatal injuries and hospital emergency visits for older adults.[2] Additionally, as age increases, so does the risk of falling as shown by Stevens, et. al. who reported fall injuries for adults 85 and older were four to five times that of adults 65 to 74.[3] Twenty to 30% of falls cause moderate or serious injuries such as fractures or trauma associated with significant morbidity and mortality, reduced mobility, decreased function, and loss of independence.[4] Falls also result in significant costs; each year about $50 billion is spent on non-fatal fall injuries and $754 million is spent on fatal falls.[5]

Falls and fall-related injuries are attributed to a number of individual and environmental risk factors. Aging related declines in mobility, reaction time, vision, and other sensory capabilities are factors, in addition to increased medication usage, chronic conditions, and geriatric syndromes. In 2016, the National Council on Aging convened a summit to update the National Falls Prevention Action Plan, which provides the framework for falls prevention across the nation. The Plan envisions older adults experiencing fewer falls and fall related injuries, maximizing their independence and quality of life, and is intended to help accomplish the falls prevention-specific Healthy People 2020 objective to reduce the rate of emergency department visits due to falls among older adults by 10%.[6]

In 2018, the Virginia Department of Aging and Rehabilitative Services (DARS) received funding from the Administration for Community Living (ACL) to establish a statewide coalition on fall prevention. Officers were elected and By-Laws were developed, as well as a vision and mission for the group, and committees were established (Executive, Education, Membership, Advocacy, and Sustainability). Membership of the Virginia Falls Prevention Coalition (VFPC) is comprised of the Southwestern Virginia Falls Prevention Coalition, as well as representatives of various agencies such as the Virginia Department of Health (VDH), Health Quality Innovators (HQI), and Leading Age Virginia, and local members from local Area Agencies on Aging (AAA), physical therapists, and hospital staff. Currently the Northern Virginia Falls Prevention Association does not participate on the VFPC. Funding to support DARS and the VFPC from ACL will end in June, 2020.

The vision of the VFPC is that “All older adults and individuals with disabilities in the Commonwealth of Virginia will have access to fall prevention interventions that will result in them living independently and safely.”

Through statewide meetings and an annual conference, the group has developed objectives and activities including:

1. Making fall prevention an integral, well-funded part of a coordinated system of ongoing programs and services.
    - Develop a one-page talking points document targeted to legislators on the purpose and success of fall prevention evidence-based programs.
    - Create an informational brochure on fall prevention programs and the Virginia Falls Prevention Coalition for distribution to the general public.
2. Creating a statewide structure to interconnect fall prevention programs to each other and to experts and resources-Coalition Building/Capacity Building.
    - Increase statewide and regional Coalition membership by recruiting individuals from target stakeholder groups.
3. Developing strategies to maximize the dissemination of proven, effective fall prevention interventions and identify barriers to those interventions.
    - Work with DARS to create a SharePoint page where Coalition members can post resources and best practices.
4. Educating health professionals about the issue as well as risk assessment
    - Provide a minimum of one educational offering at each quarterly meeting of the Coalition.
    - Create a mailing list of health professionals and send out the brochures created under Objective 1 and add the Stopping Elderly Accidents, Deaths, and Injuries (STEADI) risk assessment.

Arthritis:

Arthritis is a term that refers to more than 100 conditions affecting joints, the surrounding tissues, and connective tissues. Symptoms of arthritic conditions include pain, aching, stiffness, and/or swelling in and around a joint. It is estimated 54.4 million American adults have arthritis, with the most common type of arthritis, osteoarthritis, affecting an estimated 31 million individuals. Arthritis is the leading cause of disability among adults in the U.S.[7]

According to the Behavioral Risk Factor Surveillance System, 46.6 % of people in Virginia report limited capacity to engage in activities of daily living due to an arthritic condition, 31.3 % report being physically inactive and more than 40 % report work limitations. Arthritis frequently occurs with other chronic diseases including obesity, diabetes, and heart disease at rates in Virginia of 30.6%, 38.3 % and 38%, respectively.[8] As with falls, experts believe that number will grow as our nation's population gets ages. For example, the number of people expected to have doctor-diagnosed arthritis by the year 2040 will increase to more than 78 million. Total medical costs and earnings losses due to arthritis were $304 billion in 2013.[9]

Early diagnosis, weight management, physical activity, and self-management can reduce the pain and disability that accompanies arthritis. However, physical inactivity is very common among those with arthritis and lack of movement exacerbates arthritis

symptoms, as well as those from other chronic diseases. Additionally, only 12.5 % of those with arthritis report ever taking an educational course or class to learn how to manage problems related to their arthritis or joint symptoms.[8]

In 2010, the CDC published "A National Public Health Agenda for Osteoarthritis", a public health call to action that focuses on the most common form of arthritis. The plan makes recommendations including improving education and increasing evidence based interventions, promoting moderate physical activity combined with weight management, communicating awareness, and addressing existing policies.[10]

In May 2019, VDH began its focus on creating a Virginia Arthritis Coalition (VAC) as part of its five year funding for arthritis from CDC, which will end in 2023. The CDC funding includes support for a full time Arthritis Coordinator and a part time Arthritis Coalition Coordinator. To date, nearly twenty statewide partners have joined the VAC and an inaugural meeting has been held. VAC membership includes the Virginia Health Care Association, Virginia Association of Free and Charitable Clinics, Arthritis Foundation, Virginia Department of Conservation and Recreation, AgrAbility Program at Virginia Polytechnic Institute, Virginia Alliance of YMCAs, Roanoke Valley United Way, Virginia Center on Aging, Virginia Department of Transportation, VDH Office of Health Equity and CommonHealth programs. Overlap of the Coalition's membership with VFPC includes members from DARS, local AAA's, HQI, and Leading Age Virginia. Immediate future plans for the Arthritis Coalition are to develop By-Laws, as well as a vision and mission for the group so that work on strategies can get underway. Grant funded coalition activities include:

1. Developing and engaging members in the Virginia Arthritis Five Year Plan to accomplish outcomes.
2. Expanding and executing activities including Arthritis-Appropriate Evidence-Based Interventions (AAEBIs).
3. Raising awareness/assisting in development and/or distribution of a variety of communication materials.

In addition to the VAC, VDH will be developing an Arthritis Council, a group of health professionals to focus on raising awareness about arthritis and providing referrals for patients with arthritis to AAEBIs.

Falls and Arthritis:

People with arthritis commonly experience reduced levels of muscular strength, pain, joint swelling and damage, muscle atrophy, as well as impaired perception of limb position that is necessary for safe movement and balance. In 2016, according to the National Council on Aging (NCOA), people with osteoarthritis experienced 30% more falls and had a 20% greater risk of fractures than people who did not have the disease.[11] Research was based on analysis of women in the Global Longitudinal Study of Osteoporosis in Women, a large international study designed to improve care of patients who are at risk of osteoporosis-related fractures. It revealed those who had

osteoarthritis (about 40% of the study population) experienced 30% more falls and had a 20% greater risk of fracture than those without arthritis.[12]

According to the Arthritis Foundation in an article "*Osteoarthritis and Falls: Having OA may make you more likely to suffer falls and fractures. Here's what the research shows and what you should do to reduce your risk"*[13]*, a*dditional studies have shown an association between arthritis and fall risk including:

- A study in the Journal of the American Medical Association (2009) of adults aged 70 years and older, found that those who reported two or more locations of musculoskeletal pain, severe pain, or pain that interfered with their ability to perform daily activities were significantly more likely to fall than those with no pain or low levels of pain.

- A study published in Arthritis and Rheumatism of 6,641 men and women 75 years or older who participated in a three-year trial of vitamin D therapy found that those who reported prevalent knee pain had a 25 % increased risk of falls and almost twice the risk of hip fractures compared to those without prevalent pain.

- In a cross-sectional, population-based study published in *Osteoarthritis and Cartilage* of adults 50 to 80 years old, researchers used several tools including the Western Ontario McMasters Osteoarthritis Index (WOMAC) that measures pain, stiffness and functional ability of randomly selected men and women aged 50 to 80. Although the group as a whole had a low risk of falls, those who had higher WOMAC scores associated with reaction time, balance, and proprioception, had a greater risk of falling compared to those with lower scores.

According to the referenced Arthritis Foundation article, research shows medications used for pain relief from arthritis also have an impact on falls. In a 2011 study researchers at New York University reviewed the medical records of 10,000 patients diagnosed with osteoarthritis between 2001 and 2009, and found that the percentage of study patients who received prescriptions for narcotic analgesics increased from eight percent in 2002 to 40 percent in 2009. During the same time frame, the incidence of falls and fractures more than quadrupled.

Adults with rheumatoid arthritis also have an increased risk of falls. Suggested reasons for this include impaired muscle strength, postural instability, fatigue, joint pain, and reduced functioning. The falls also lead to an increased risk of hip fractures due to disease-related reduced bone mass.[14]

Advantages and Disadvantages of Combining the VFPC and VAC

With interconnecting disease issues, as well as some membership overlap of the VFPC and the VAC, staff from DARS and VDH met to discuss the option of combining the two groups. The following are advantages and disadvantages of that possibility, as well as potential recommendations in moving forward:

Advantages (Pros):

- A number of the same agencies and individuals are involved in both Coalitions, which would save valuable resources such as staff time and travel for meetings
- VDH's CDC grant continues until 2023 and funds staff to provide combined coalition support, whereas funding will be gone for VFPC in 2020
- A number of strategies or activities for both Coalitions are cross cutting; i.e. consumer and professional education, referrals, and AAEBI program promotion
- Combining the Coalitions would increase the number and breadth of members to focus on both issues
- VDH would benefit from local AAA's participation in dissemination of AAEBIs to meet CDC grant goals
- Statewide partners would help elevate VFPCs agenda to more groups than it currently has on board
- Messages from both Coalitions target the same consumer age groups and health care providers
- Merger of the Coalitions gives additional time for VFPC to become sustainable and provides a larger member base for the VAC for potential sustainability
- Better interaction and frequency of DARS and VDH staff working together
- Increased number of partners for programmatic data collection and surveys
- VAC is in the formative stage so it is not so far along that the merger would significantly affect their structure
- Possible invitation to the Northern Virginia Falls Prevention Coalition for a representative to sit on the combined Coalition giving both programs expansion into that area of the state

Disadvantages (Cons):

- The vision and mission of the VFPC is very focused on falls, a new combined mission and vision would need to be inclusive
- Some coalition members in VFPC and VAC may feel their cause is diluted, or not what they envisioned for their chief area of interest
- Potential additional work/cost for VDH for meeting with larger meeting attendances
- Coalitions are at different points of development and falls prevention members may feel their time has been wasted up until now
- Reappointing officers for VFPC may be an obstacle
- Possible obstacles exist if either funding agency does not approve the Coalition merger
- Structure decisions within the combined Coalition could cause issues with current VFPC members; a combined first meeting would help to resolve any problems

Options:

1. Retain VFPC and VAC current structure: Both coalitions will cross-promote efforts and opportunities for membership and participation therein.

2. Retain VFPC and VAC current structure: Both coalitions will cross-promote efforts and opportunities for membership and participation therein AND hold a joint meeting annually to obtain information and input from each Coalition.

3. Merge VFPC and VAC into one functioning body: Membership from each coalition will provide feedback and guidance on the structure, name, scope, and activities including:

    a. redrafting of vision, mission, and by-laws;
    b. holding a joint statewide convening; and
    c. drafting statewide action plan inclusive of both coalitions mission, vision, and goals.

References:

1. Tromp AM, Pluijm SMF, Smit JH, Deeg DJH, Bouter LM, Lips P. Fall-risk screening test: a prospective study on predictors for falls in community-dwelling elderly. J Clin Epidemiol. 2001; 54 (8):837–44.
2. CDC. Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) 2013.
3. Stevens JA, Corso PS, Finkelstein EA, Miller TR. The costs of fatal and non-fatal falls among older adults. Inj Prev. 2006;12 (5):290–295.
4. National Council on Aging available at: https://www.ncoa.org/news/resources-for-reporters/get-the-facts/falls-prevention-facts/
5. Florence CS, Bergen G, Atherly A, Burns ER, Stevens JA, Drake C. Medical Costs of Fatal and Nonfatal Falls in Older Adults. Journal of the American Geriatrics Society, 2018 March.
6. CDC. Centers for Disease Control and Prevention. Available at: https://www.healthypeople.gov/2020/topics-objectives/topic/older-adults/objectives
7. CDC. Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/arthritis/basics/faqs.htm
8. CDC. Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/arthritis/data_statistics/state-data-current.htm#stateBRFSS
9. CDC. Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/arthritis/basics/faqs.htm
10. CDC. Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/arthritis/docs/OAagenda.pdf
11. National Council on Aging, Osteoarthritis and Falls: What You Need to Know to Lead an Active Life and Prevent Falls (2016), available at: https://www.ncoa.org/wp-content/uploads/osteoarthritis.-and-falls-prevention-booklet-ncoa-1.pdf

12. Watts, N.B., Insights from the Global Longitudinal Study of Osteoporosis in Women (GLOW), Nature Reviews Endocrinology. 2014. 10:412–422.
13. Arthritis Foundation. Available at: https://www.arthritis.org/living-with-arthritis/pain-management/joint-protection/osteoarthritis-and-falls.php
14. Stanmore EK, Oldham J, Skelton DA, O'Neill T, Pilling M, Campbell AJ, et al. Fall incidence and outcomes of falls in a prospective study of adults with rheumatoid arthritis. Arthritis Care Res (Hoboken) 2013;65:737–44.