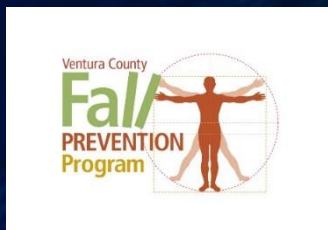


Slips, Trips, and Falls: A Multidisciplinary Countywide Fall Prevention Program



June 29, 2017

THOMAS K. DUNCAN, DO, FACS



- No Disclosures

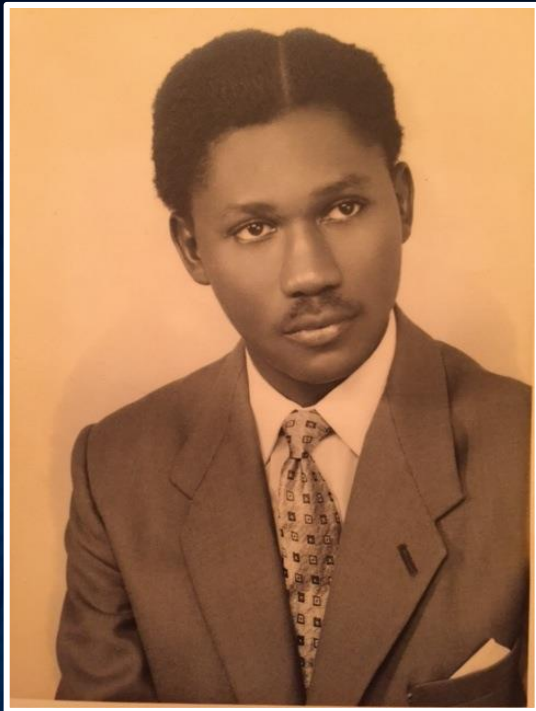


Ventura County Medical Center



Objectives

- Enlighten you about our program
- Hazards of slips, trips, and falls
- Bring awareness to our community
- Prevent Falls!
- Prevent Falls!!
- Prevent Falls!!!



Reasons for Falls in Elderly



HOME

- Alcohol or Drugs
- Improper extension cords
- Wrinkled rugs
- Clutter
- Falling out of bed
- Shower/wet floors
- Small pets
- Improper footwear

MEDICAL CONDITIONS

- Poor vision/lighting
- Dizziness (vertigo)
- Polypharmacy
- Mini strokes (TIA)
- Poor Strength
- Dementia

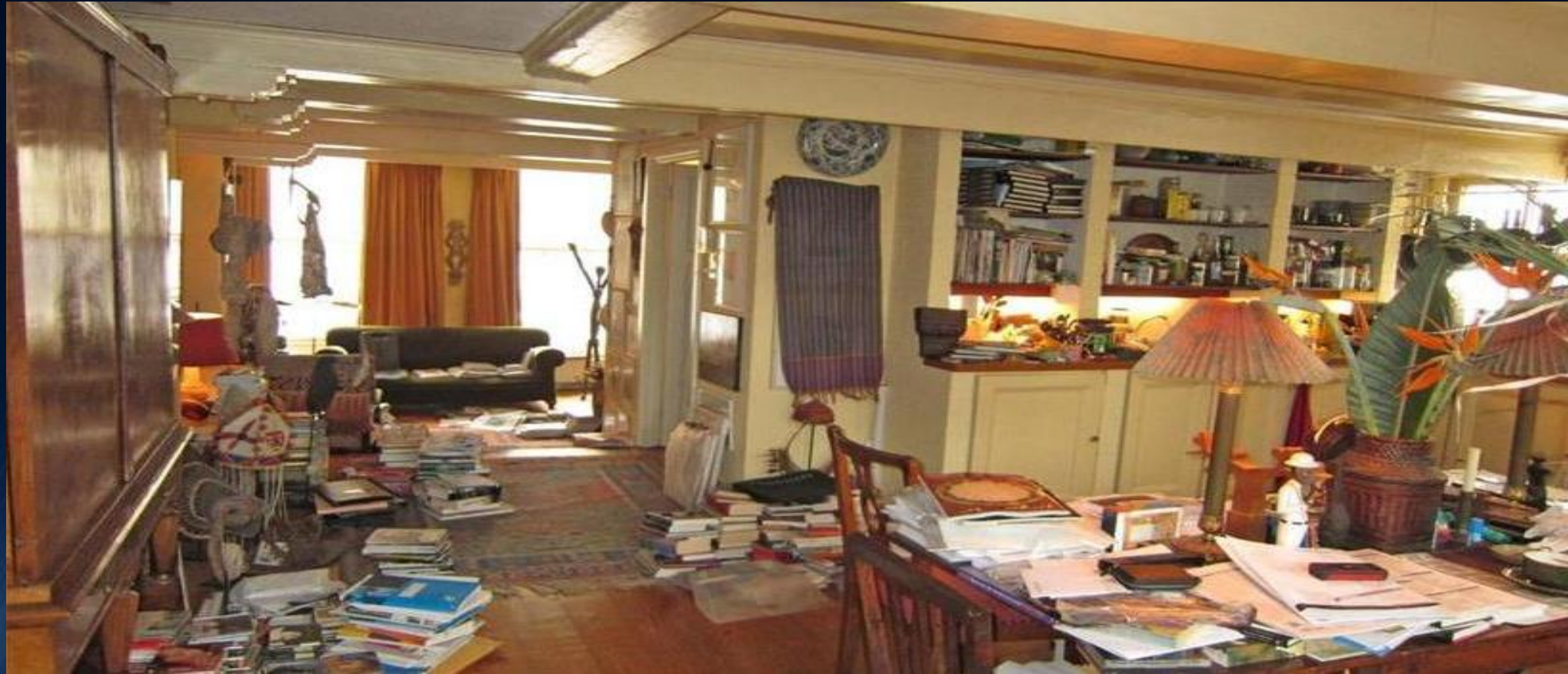


Consequences of Falls

- Change in quality of life
- Decreased mobility
- Depression
- Isolation



Recipe for Disaster!



Background

- Falls are a leading cause of death & ED visits in ≥ 65 years
- > 30% of elderly fall once per year
- 20 – 30% elderly falls limits mobility, QOL, premature death
- US (2013): 2.5 million elderly treated for non fatal falls in EDs
- > 800,000 older adults are hospitalized per year, due to falls
- Unintentional elderly falls are responsible for 25,000 annual deaths
- Average cost for a fall: > \$30,000; 2013: Direct medical costs: \$34 billion



Background

- EMS are often first responders for elderly fall victims
- 11 – 56% of EMS treated older fall adults are not transported
- To date, no guidelines exist for pre-hospital personnel counseling for non transported patients
- Cochrane review: Multifactorial interventions reduce falls
- NHS: EBEP - mainstay of falls prevention & rehabilitation strategies



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< Previous Article **June 2016** Volume 50, Issue 6, Pages 719–726 Next Article >

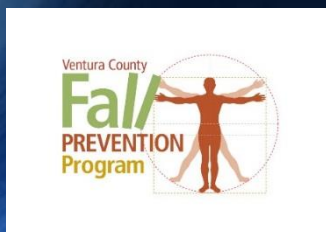
To read this article in full, please review your options for gaining access at the bottom of the page.

Older Adult Falls Seen by Emergency Medical Service Providers

A Prevention Opportunity

Mark Faul, PhD, MA, Judy A. Stevens, PhD, Scott M. Sasser, MD, Lisa Alee, MSW, Angela J. Deokar, MPH, Deborah A. Kuhls, MD, Peter A. Burke, MD

- 42 states; 2012; data from national EMS information system
- Unique insight into fall circumstances & EMS transport
- EMS personnel are in a **prime** position to provide interventions that prevent future falls, or referral to community-based fall prevention programs & services



Journal of Trauma and Acute Care Surgery:
July 2016 - Volume 81 - Issue 1 - p 196–206
doi: 10.1097/TA.0000000000001025
Guidelines

Prevention of fall-related injuries in the elderly: An Eastern Association for the Surgery of Trauma practice management guideline

Crandall, Marie MD, MPH; Duncan, Thomas DO; Mallat, Ali MD; Greene, Wendy MD; Violano, Pina MSPH, RN-BC, CCRN, PhD; Christmas, A. Britton MD; Barraco, Robert MD

FREE SDC



Conditional recommendation:

Vit D and Calcium supplementation for frail elderly

Hip protectors

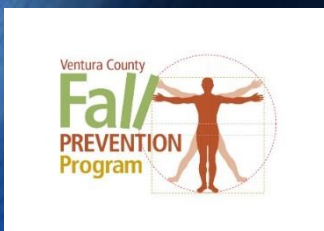
Evidence-based exercise programs

Physical environment modification

Frailty screening

Strongly recommend:

Risk stratification with targeted comprehensive risk-reduction strategies tailored to high risk groups



Goal

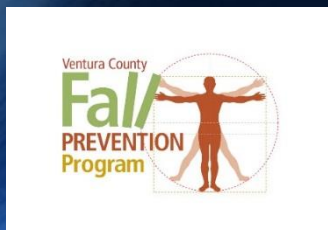
- To evaluate our efforts in reducing fall injuries for high-risk groups
- Describe EMS providers as initiators in a comprehensive multidisciplinary fall treatment and prevention program
- Describe efforts in collaboration with EBEP in decreasing repeated falls

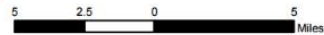
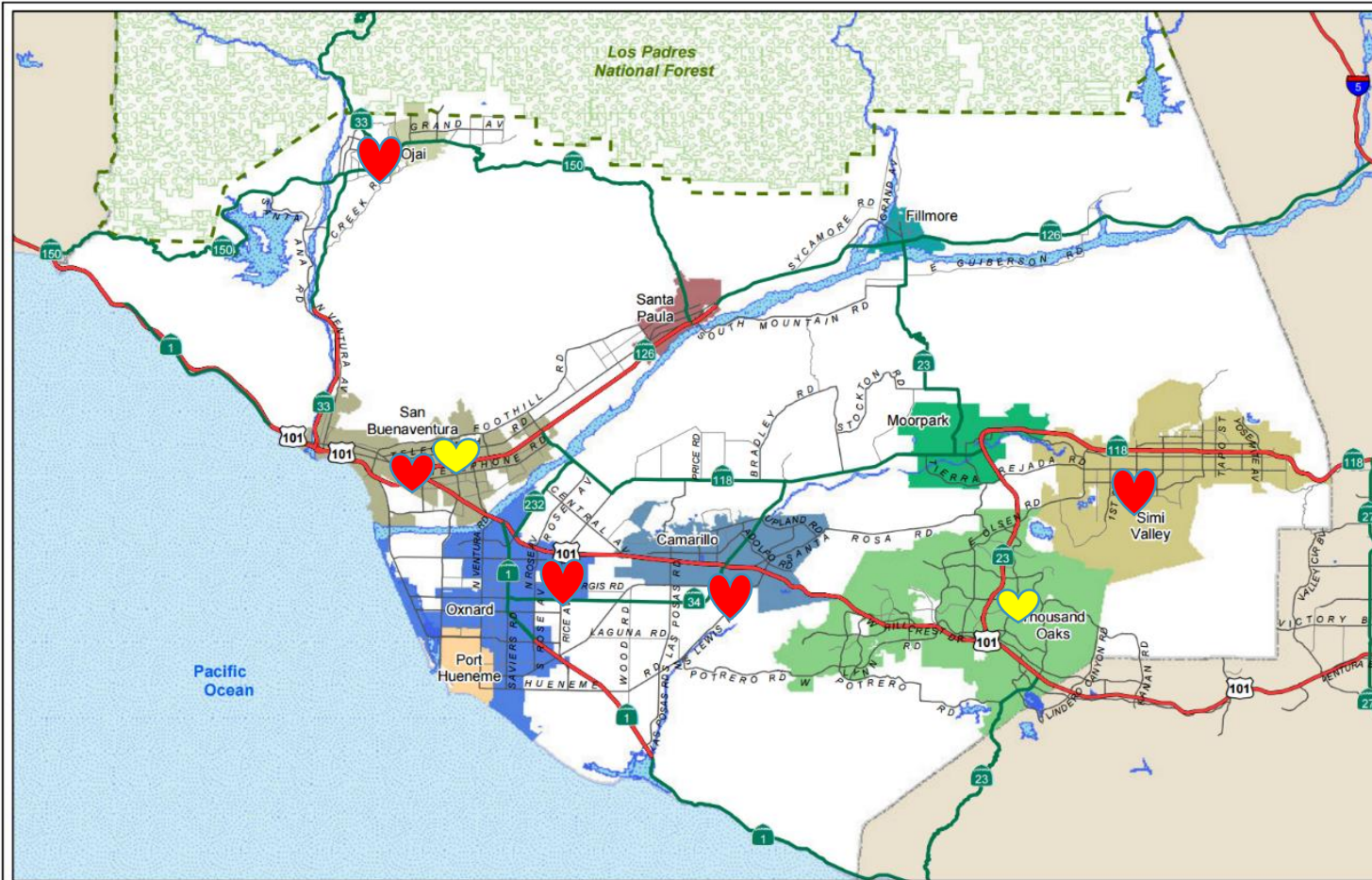


YOLO



- **YOLO** and **YODO**, so.....
- **LLAP** for **OGK** when the inevitable moment will happen.
- So **TTL** for everyday, but for heaven's sake.....
- **Protect** thyself from **Falling!**





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County of Ventura

Prepared by County of Ventura - IT Services Department - GIS Division

State Plane Coordinate System California Zone V - NAD 27

This map was compiled from records and computations

Published on: May 23, 2013



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**VENTURA COUNTY
MEDICAL CENTER
TRAUMA DEPARTMENT**

Methods

- Multidisciplinary elderly fall prevention coalition formed in 2012
- Result of injury prevention effort
- Involves > 35 organizations
- IRB approved elderly fall prevention program started in July 2014
- All EMS providers (153) in pilot area trained; 16 Fire & Paramedic stations



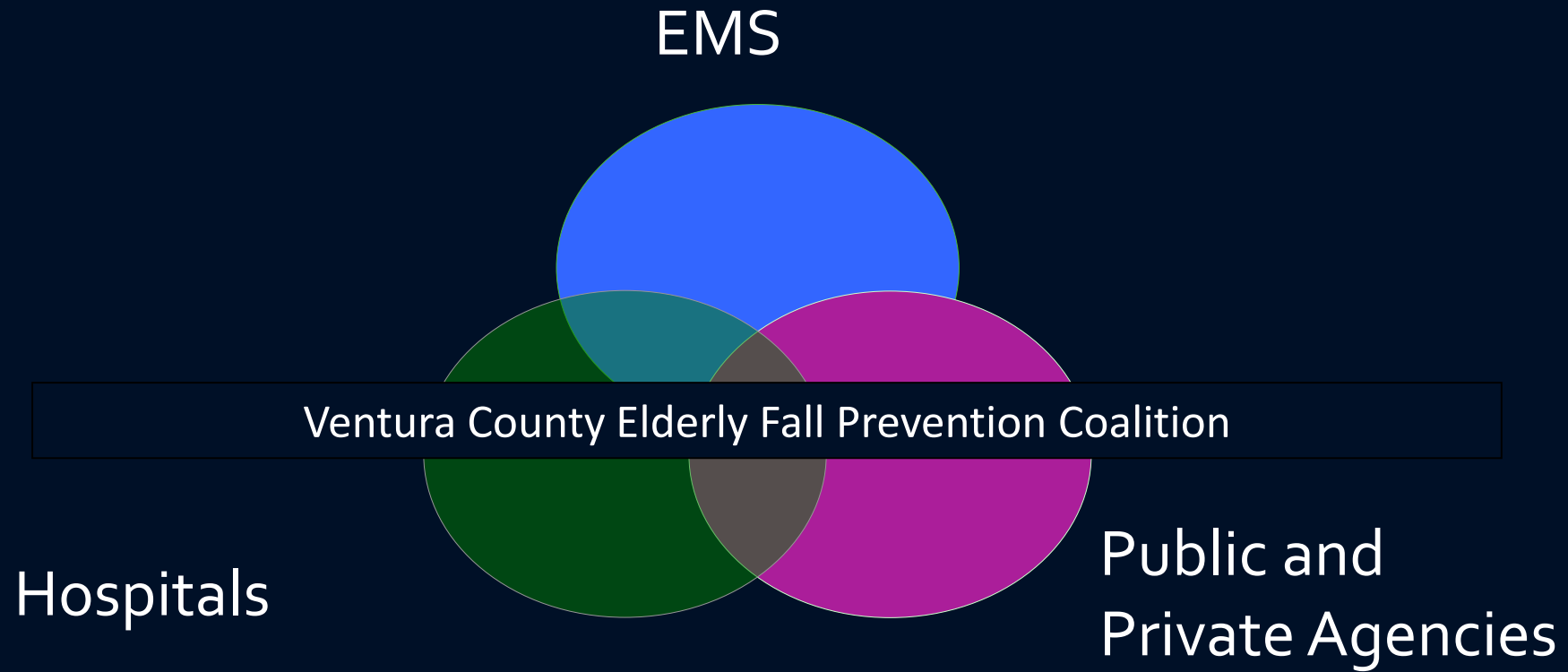
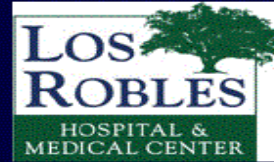


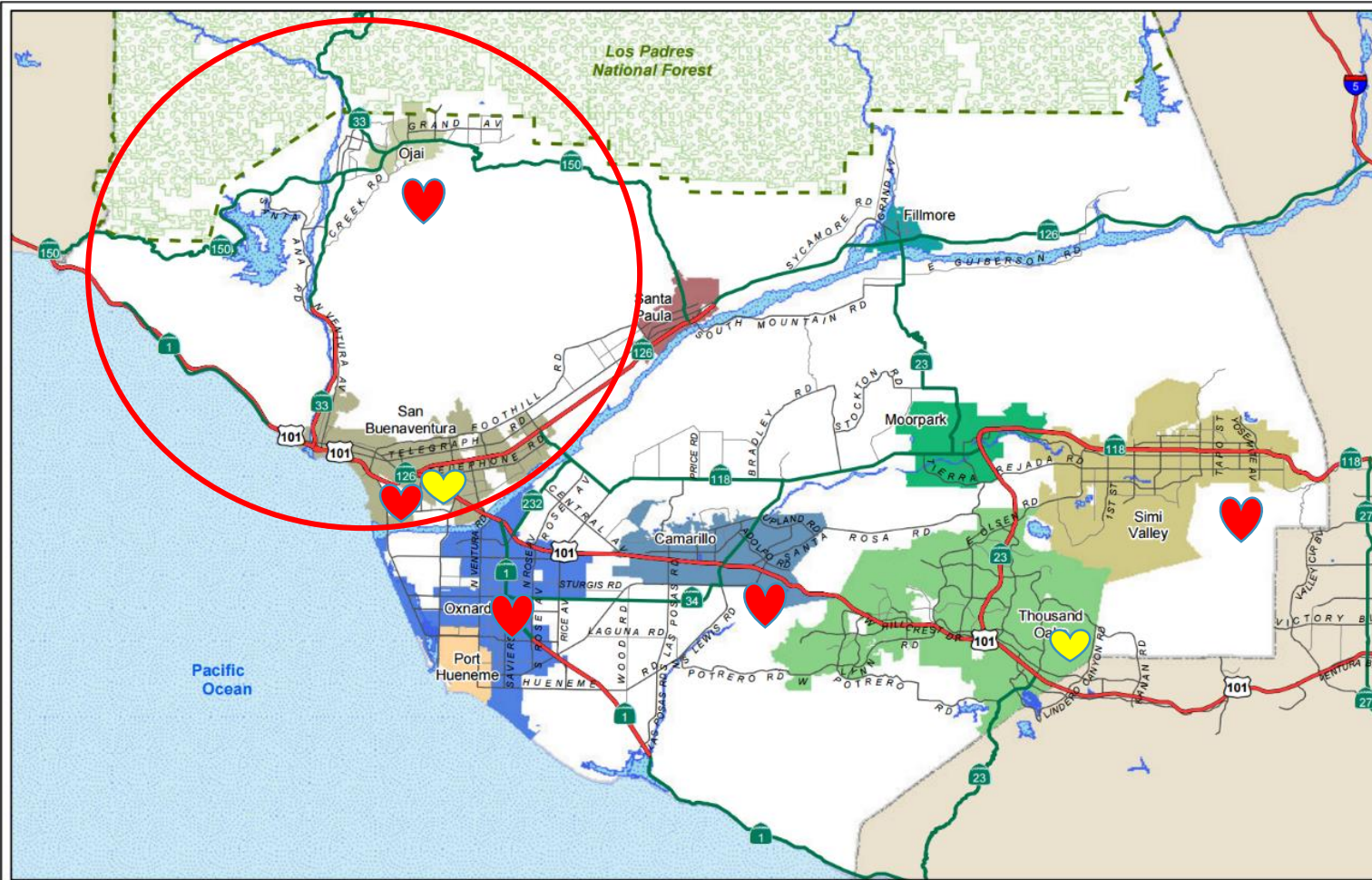
Table Invitees



- Ventura County Medical Center
- Ventura County Board of Supervisors
- Ventura County Emergency Medical Services Agency
- Ventura County Public Health
- Ventura County Fire Department
- Ventura City Fire Department
- Oxnard Fire Department
- Camarillo Healthcare District
- Community Memorial Hospital/Ojai Valley Hospital
- American Medical Response/Gold Coast Ambulance
- Habitat For Humanity
- Lifeline Medical Transport
- Ventura County Area Agency on Aging (VCAAA)
- Dignity Health – St. John’s Hospitals
- Assisted Home Health
- Livingston Memorial Visiting Nurses Association
- Scan Health
- Healthy Ventura County
- HealthWise Homecare Solutions, Inc
- Kaiser







County of Ventura

Prepared by County of Ventura - IT Services Department - GIS Division

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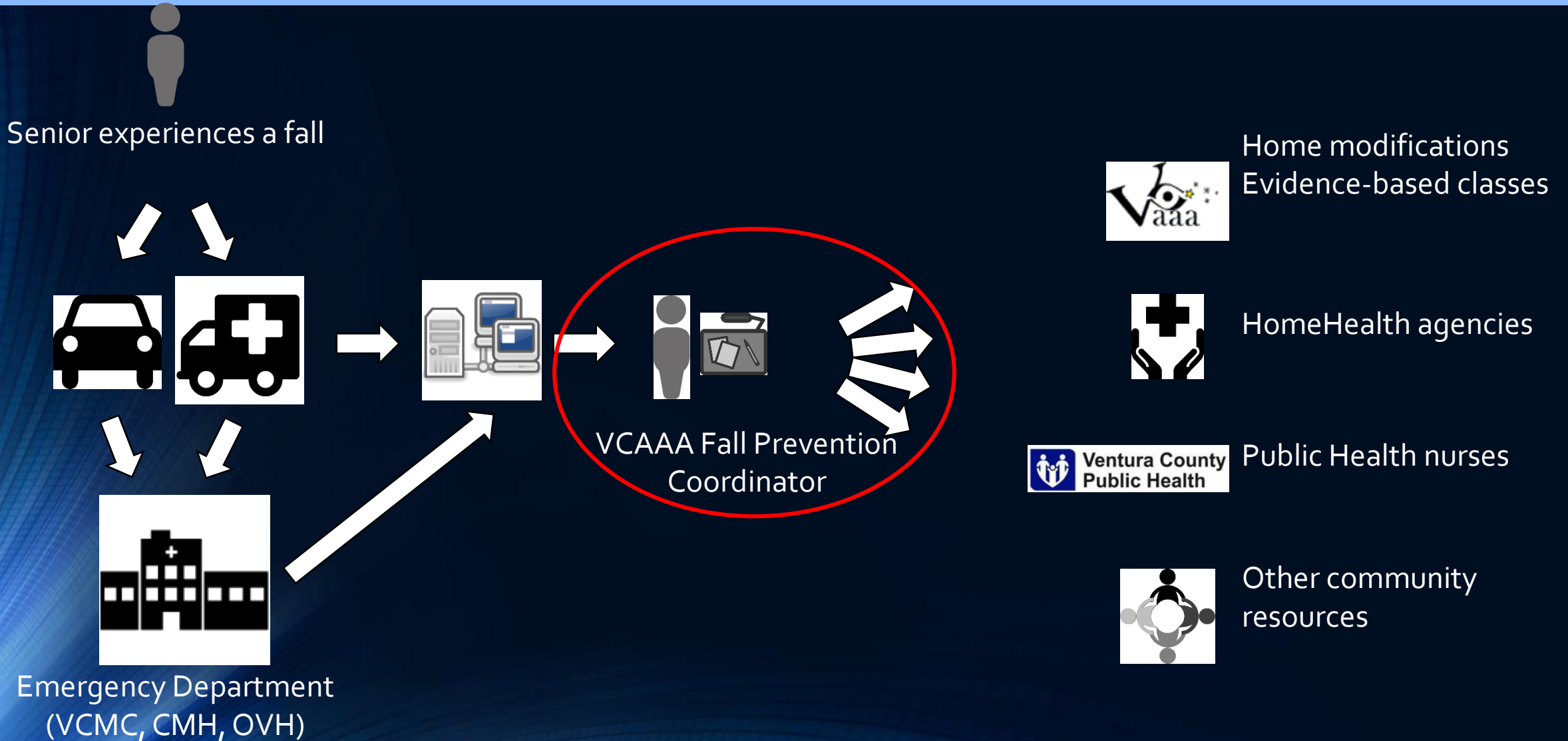
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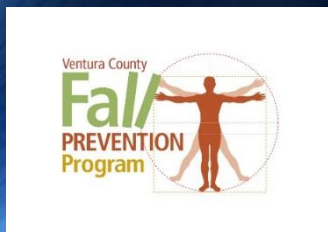
VENTURA COUNTY
MEDICAL CENTER
TRAUMA DEPARTMENT

VCAAAA's ROLE: COORDINATE and TRACK SERVICES



VCePCR Fall Prevention Worksheet

- Required When
 - Age \geq 65 years
 - Complaint reported by dispatch = Falls, Public Service, or Lift Assist
 - Incident zip code within established pilot area
- Worksheet Contains 12 Questions, Divided Into 4 Categories:
 - Qualifying Information
 - Patient History
 - Fall Risk Mitigation
 - Patient / Family / Representative Consent



VCePCR Fall Prevention Worksheet

Elderly Fall Prevention Worksheet Worksheet

Crew Member: Date: Time:

OK Cancel Delete

Qualifying Information

History

Fall Risk Mitigation

Consent

1. Is this incident related to a fall?

2. Is the victim at high risk for a fall in the near future (next 6 months)?

3. Is the patient 65 years of age or older?

4. Is the site of this incident the patient's primary residence?

Times

Mileage

Timeline

Power Tools

VCePCR Fall Prevention Worksheet

- History >
- Fall Risk Mitigation >
- Consent >

History			
5. Has the patient fallen before or needed assistance up from the floor in the recent past (6 months)?	<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="button" value="Unknown"/>
6. Is the patient currently taking 5 or more prescribed or over-the-counter medications?	<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="button" value="Unknown"/>
7. Was this incident the result of a medical condition (weakness, dizziness, syncope, stroke, etc.)?	<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="button" value="Unknown"/>
8. Was this incident the result of a mechanical issue (trip/slip and fall, roll out of bed, etc.)?	<input type="button" value="Yes"/>	<input type="button" value="No"/>	<input type="button" value="Unknown"/>

VCePCR Fall Prevention Worksheet

Qualifying Information >	Fall Risk Mitigation
History >	
Fall Risk Mitigation >	
Consent >	
	9. Was information on fall prevention provided? <input type="button" value="Yes"/> <input type="button" value="No"/>
	10. Were any immediate hazards mitigated by personnel on scene? <input type="button" value="Yes"/> <input type="button" value="No"/>
	Consent
	11. Does the patient, or authorized representative, consent to a follow-up interview by a home healthcare nurse/professional regarding fall prevention? <input type="button" value="Yes"/> <input type="button" value="No"/>
	12. What is the consenting individual's first and last name and best phone number at which he/she can be reached? <input type="text"/>

Timeline

Power Tools

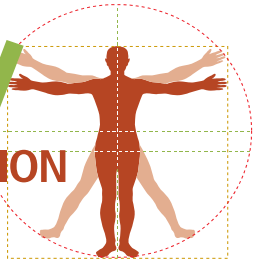
Elderly Fall

Stroke

All

Ventura County

Fall PREVENTION Program



FALL FACTS:

- One out of three older adults (those aged 65 or older) falls each year, but less than half talk to their healthcare providers about it.
- Every half hour an older adult dies as the result of a fall.
- Most falls occur at home.

WE ARE HERE TO HELP YOU STAY SAFE IN YOUR HOME!

RISK FACTORS:

- Over 65 years of age
- Poor balance and strength
- Taking 5 or more prescription medications
- Vision impairments
- Environmental hazards



Please call **805-477-7343** or email fall.prevention.program@ventura.org for more information on how we can help you.

HOW CAN THE FALL PREVENTION PROGRAM HELP?

- Home Safety Assessments
- Information, Resources and Referrals
- Education
 - Workshops and Presentations
 - Advocacy

What can you do?

TO MAKE YOUR HOME SAFER:

- Remove tripping hazards (i.e. shoes, papers, pet toys)
- Home modifications (i.e. grab bars)
- Use non-slip rubber mats in tub or shower.
- Remove throw rugs or tape them in place.
- Move furniture and clutter to create clear pathways.
- Increase lighting.

TO HELP YOURSELF PREVENT FALLING:

- Stay as physically active as you can – build your balance, strength and flexibility
- Review your medications with your healthcare provider
- Keep your healthcare providers informed of any falls or hospital visits
- Get your vision checked regularly and update your eye-glasses when needed
- Keep your family and friends informed – ask for help when you need it

Ventura County

Fall
PREVENTION
Program



Funded by the County of Ventura

If you check off these items, you will make yourself and your home safer right away!

Evidence-Based Exercise Programs

- Tai Juan Chi : Moving for better balance
- A Matter of Balance
- Stepping On
- Walk with Ease
- Otago



Outreach

- Annual fall prevention forums – 4 English; 3 Bilingual
- 350 Fairs (2016)

Saturday, April 29, 2017

Maintaining your Equilibrium!

What?
Conference for older adults and their caregivers

Details:
Registration: Begins at 8:00 am
Forum: 9:00 am - 12:00 pm
Exhibitors and Health Assessments: Available from 12:00 - 2:00 pm

Where?
Santa Paula Senior Center
530 W. Main Street
Santa Paula, 93060

Flu vaccines will be available for free for attendees 65+, while supplies last!

****Conference will be conducted in Spanish. Interpreter assistance will be available.**

If you have any questions, or to make reservations, call
Dina Ontiveras
(805) 477-7343

Ventura County Fall PREVENTION Program

Welcome:
Marin Hernandez

Presentations by:

- **D. Reynard Lopez, MD/CC**
Supervising Physician for Rater/Healthist Clinics
- **D. Thomas Dineen, MD**
FACS Chief of Staff, Trauma Medical Co-Director, Ventura County Medical Center and Santa Paula Hospital

We will have:

- Nutrition presentation
- Zumba® & Tai Chi demonstrations
- Raffles and prizes!
- Breakfast and refreshments!

Presented by the Ventura County Elderly Fall Prevention Coalition

Space is limited, reserve your spot today!



Please join us for
Tai Chi:
Moving for Better Balance

12 WEEK CLASS: August 15 - November 2, 2017

Tuesdays and Thursdays: 9:00 am to 10:30 am

- ◆ Simplified Tai Chi for Seniors
- ◆ Intended for beginners
- ◆ Canes and walkers okay
- ◆ "If I can do it, YOU can do it!"
- ◆ Proven to reduce falls by 55%
- ◆ Developed with YOU in mind.
- ◆ For those 60 years and over

LOCATION: Pierpont Racquet Club
500 Sanjon Road in Ventura

SIGN-UP WITH
PRC Service Desk
(805) 648-5161
or Fall Prevention Program Coordinator
Dina U. Ontiveras
(805) 477-7343

Ventura County Vaaa AREA AGENCY ON AGING
To Serve. To Guide. To Empower.

PIERPONT RACQUET CLUB
Ventura County Fall PREVENTION Program

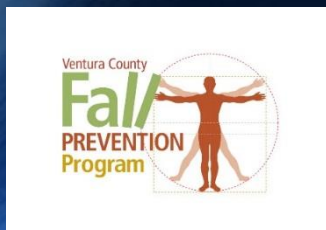
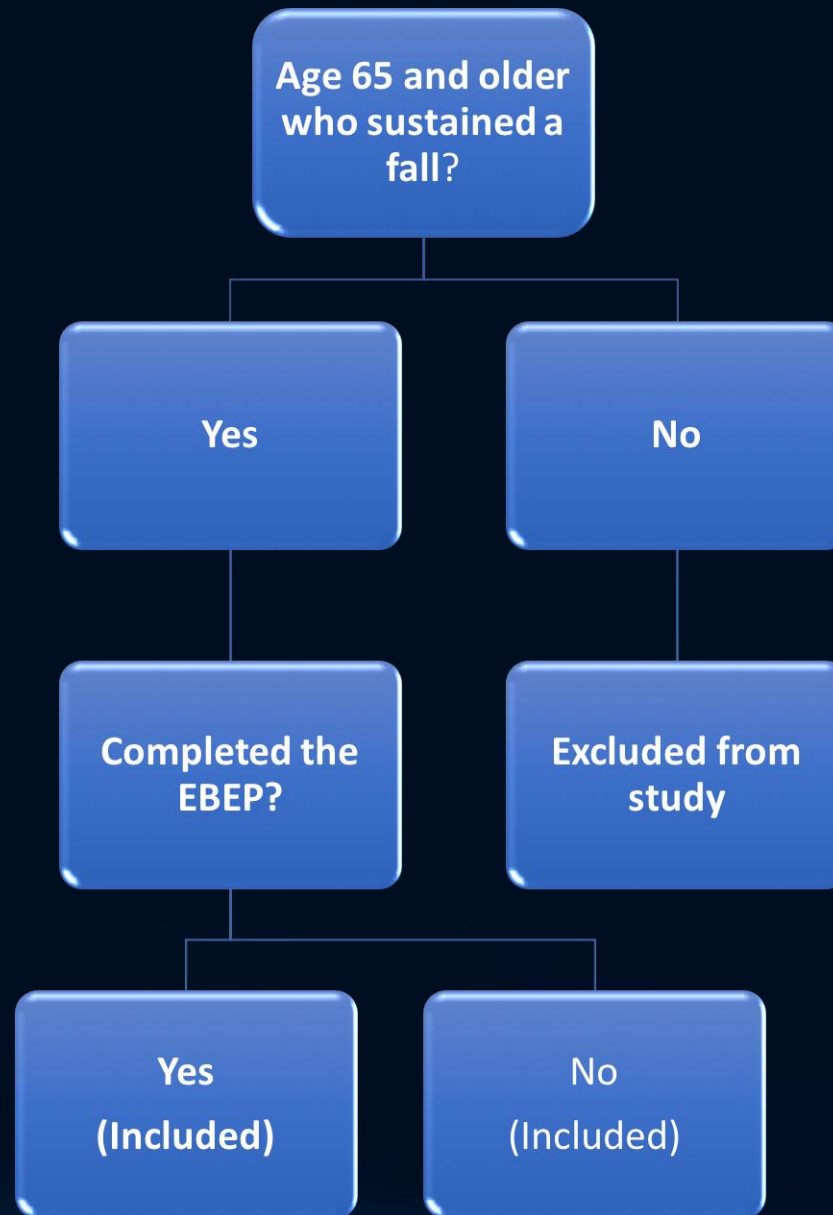




Goals

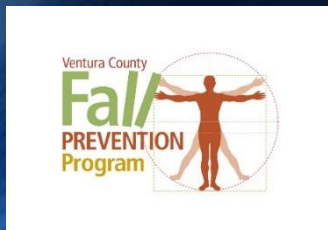
- # of falls – primary endpoint, with focus on recurrent falling
- Evaluation of those that fell enrolled in EBEP compared to...
- Those that fell who did not enroll in EBEP
- Data of those that fell evaluated by EMS pre-institution of EFPC compared to...
- Data post-institution of EFPC





Statistical Analyses

- Descriptive and comparative analyses performed using SAS version 9.2 (SAS Institute, Cary NC)



of patients transported to hospital 2013 – 2014 (pre-program implementation)

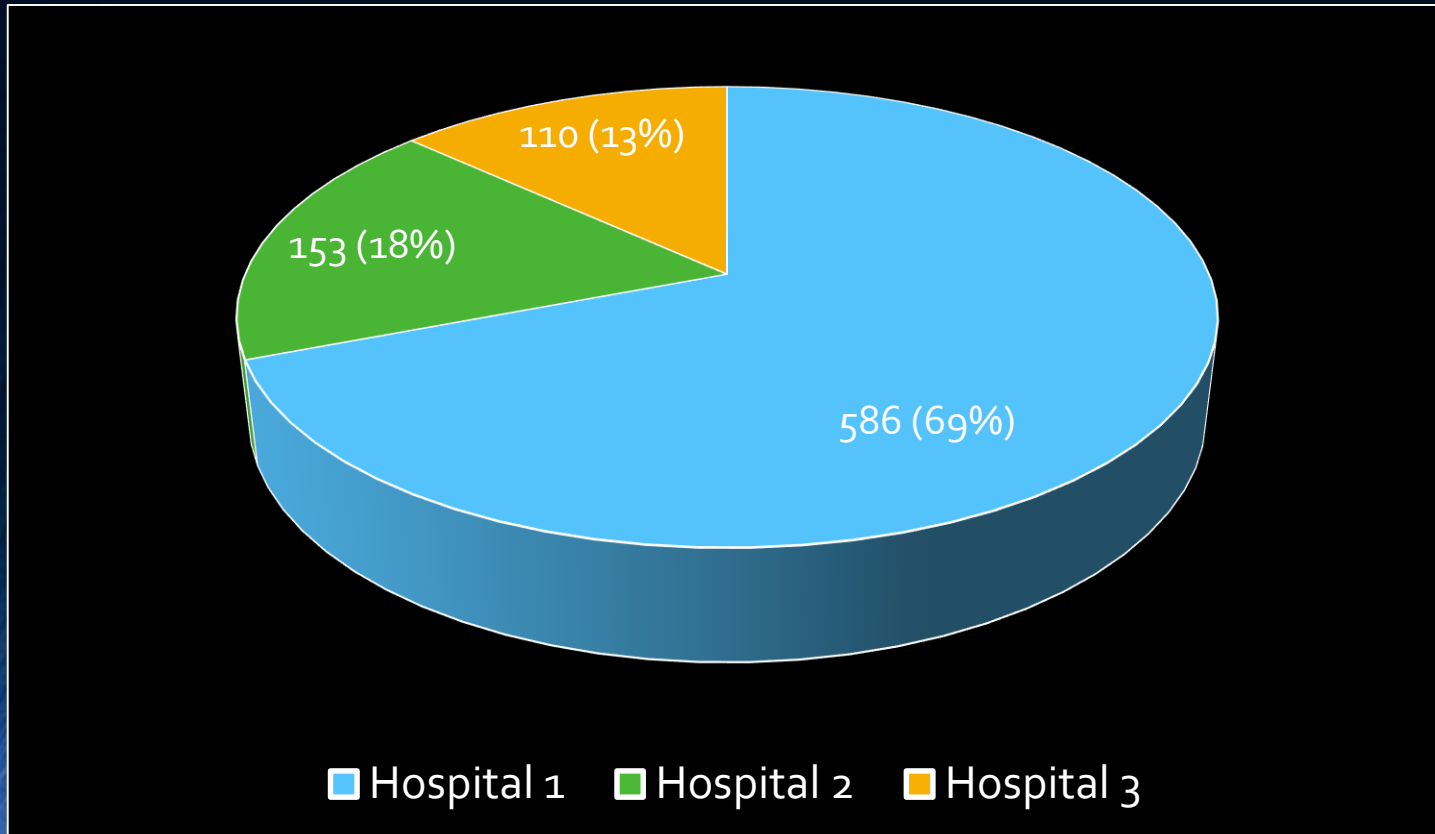


FIGURE 2: Repeat Falls Descriptive (N= 849)

REPEAT FALLS DESCRIPTIVES	
Mean	1.48409894
Standard Error	0.033584253
Median	1
Mode	1
Standard Deviation	0.978564683
Sample Variance	0.957588839
Kurtosis	7.047585704
Skewness	2.34544085
Range	8
Minimum	0
Maximum	8
Sum	1260
Count	849
Largest(1)	8
Smallest(1)	0
Confidence Level (95.0%)	0.06591801

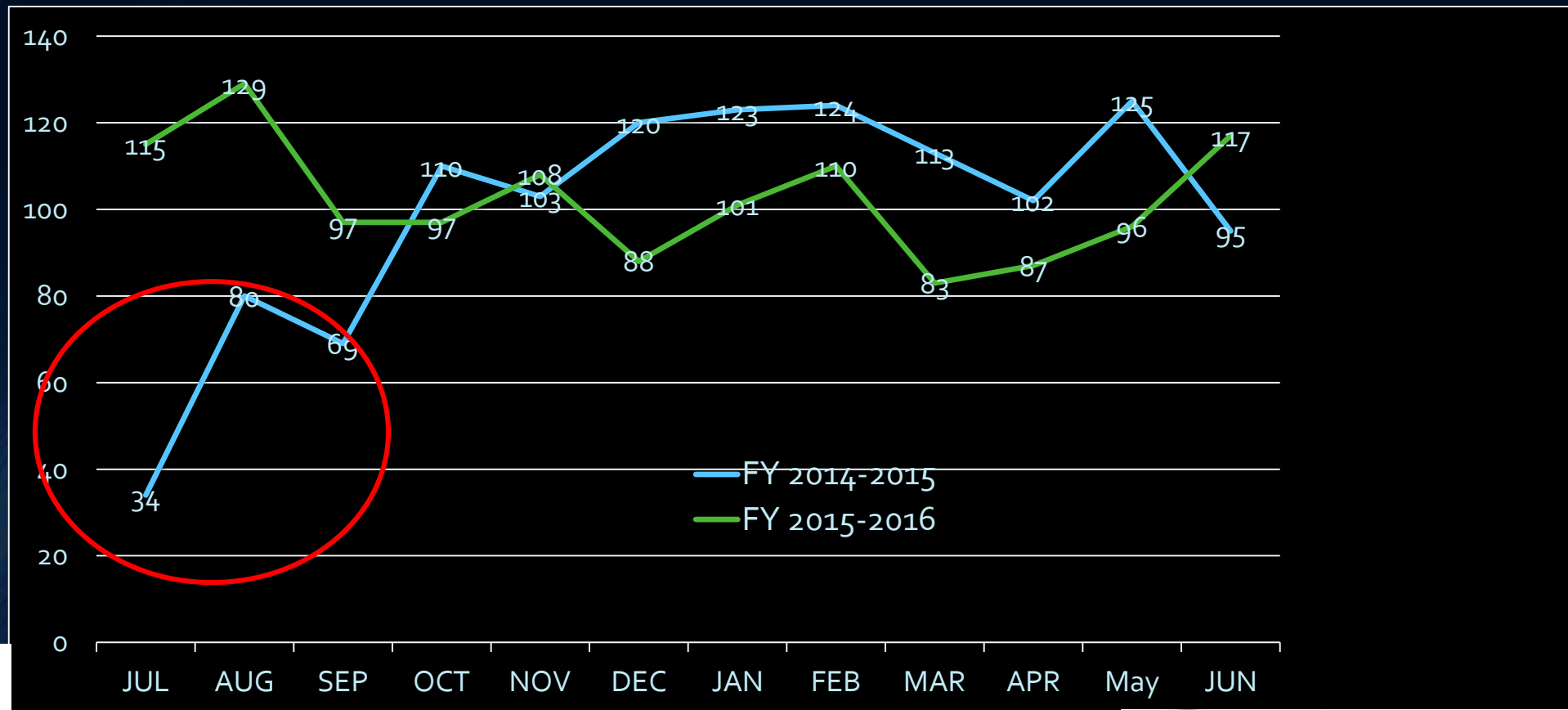


Evidence Based Exercise Program Classes

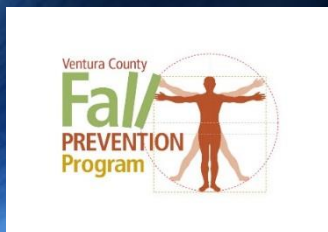
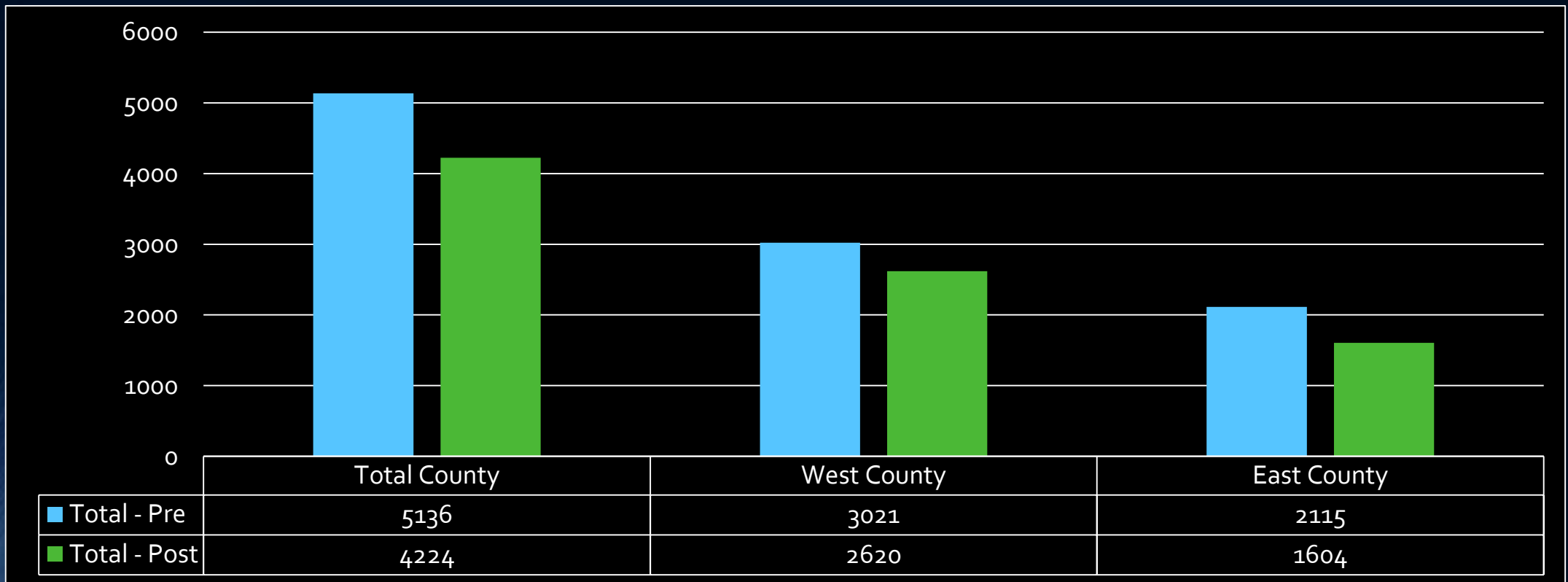
	FY 2014-2015	FY 2015-2016
# Of Falls in pilot area	1198	1337
# Of participants in the EBEP	195	683
# Of non-participants	1003	654
INTERVENTIONS: EBEP	FY 2014-2015	FY 2015-2016
A Matter of Balance	195	538
Stepping On	0	38
Tai Juan Chi	0	75
Walk with ease	0	32
TOTAL	195	683
COMPLIANCE	FY 2014-2015	FY 2015-2016
A Matter balance	69.25%	79%
Stepping On	0	76%
Tai Juan Chi	0	33%
Walk with ease	0	75%



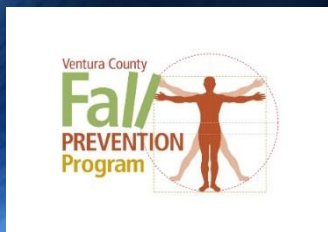
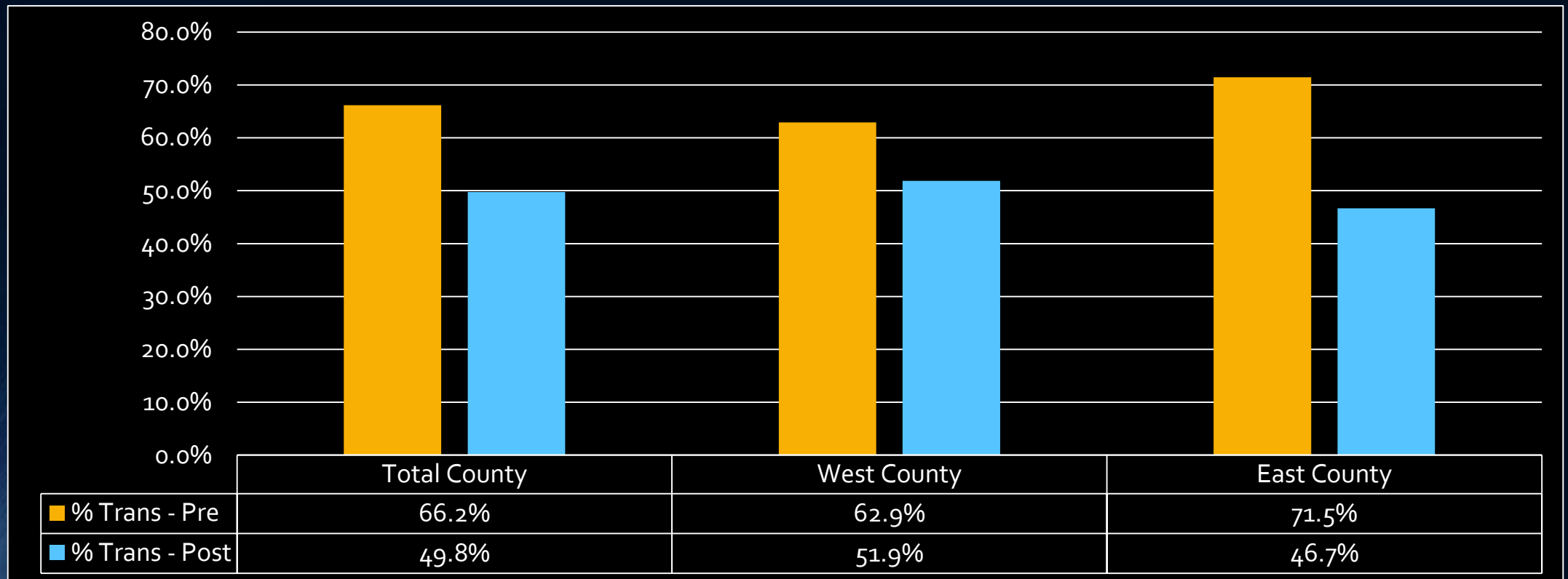
Fall incidents recorded: 2014 – 2015; 2015 - 2016



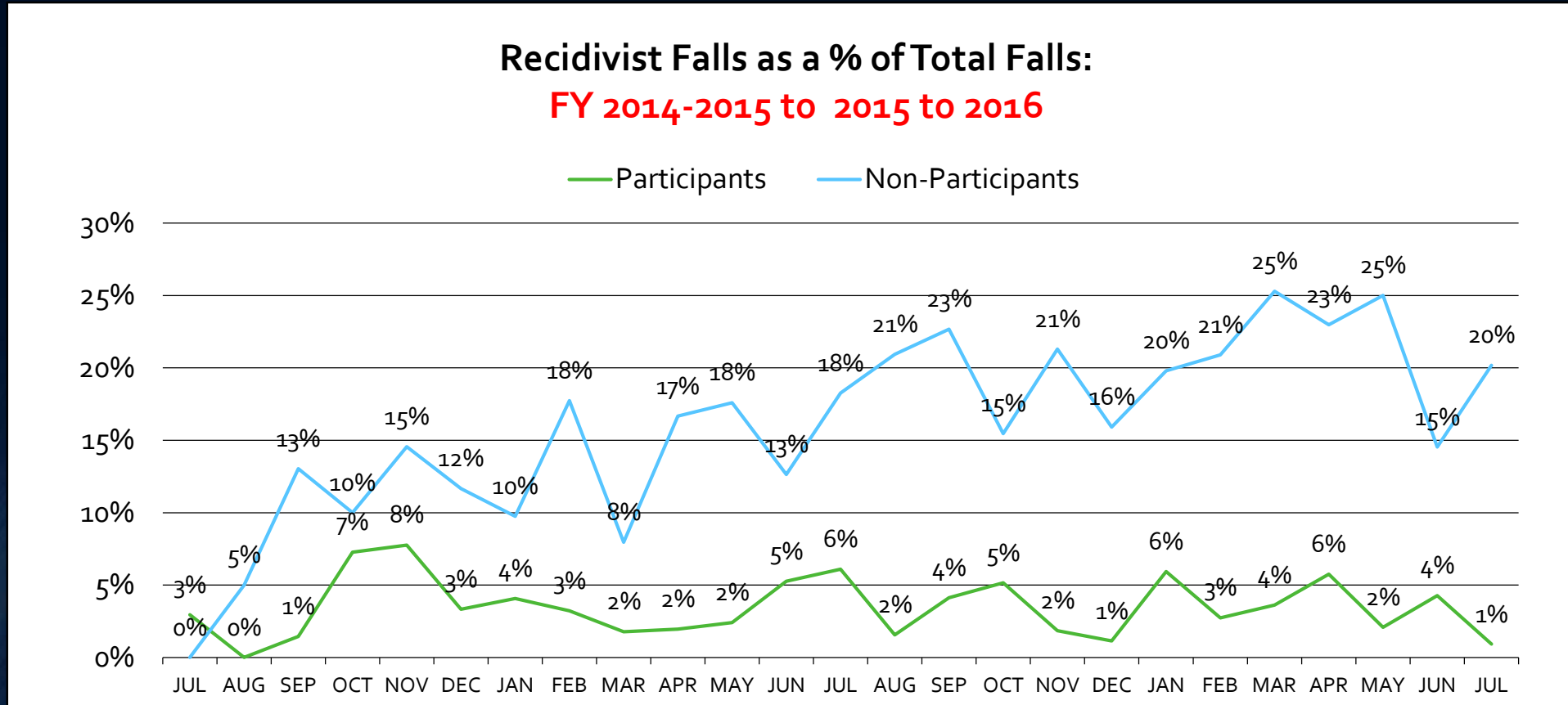
EMS Calls for Falls Transported to Hospital (2013 – 2015)



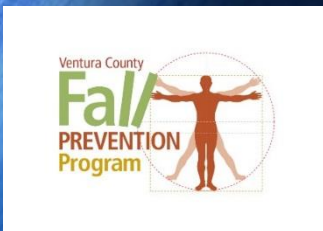
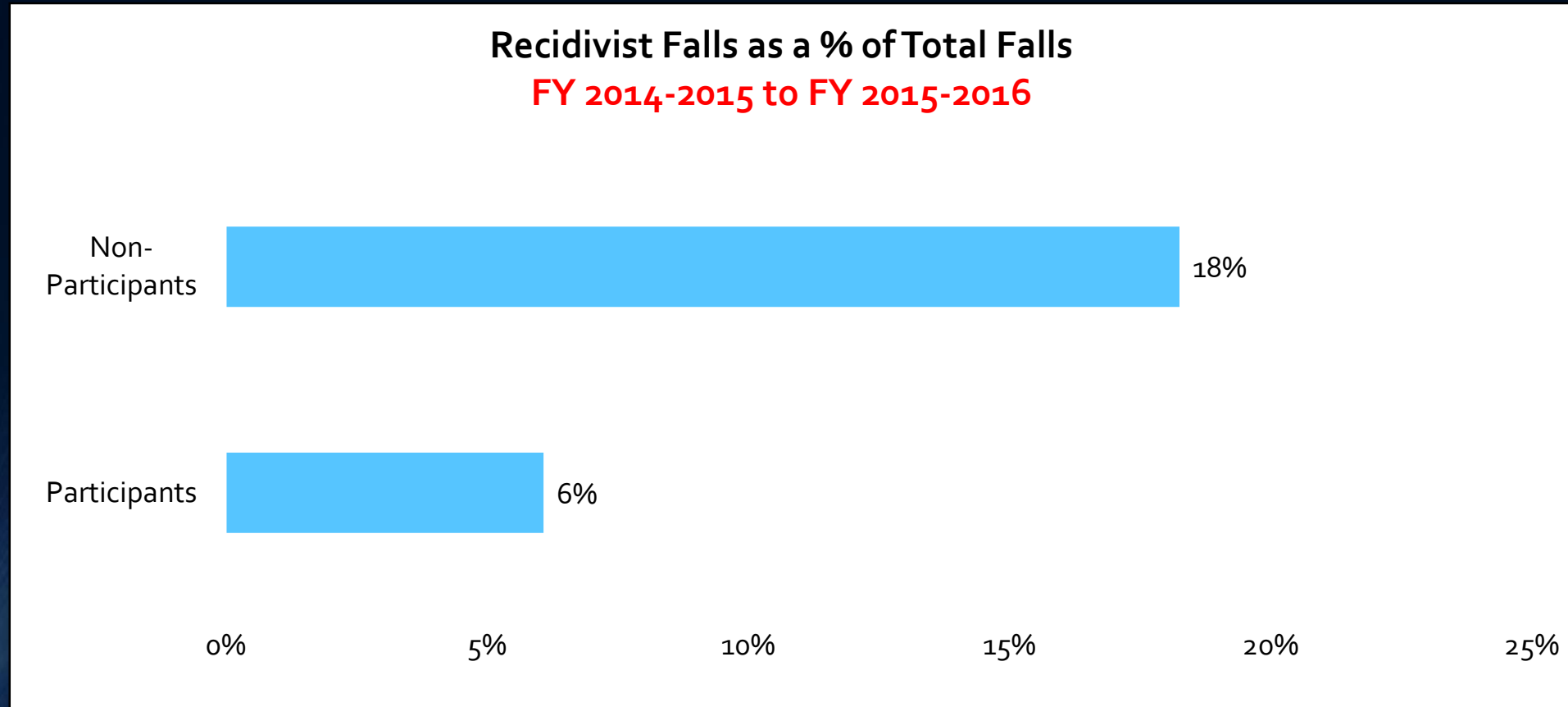
% EMS Calls for Falls Transported to Hospital (2013 – 2015)



Recidivists Falls as % of Total Falls



Recidivist Falls as a % of Total Falls



Flaws/Limitations

- Initial small sample size
- Non comparison of EBEP to each other
- Matching data sets from three separate sources
- Initial hesitancy of some pre-hospital providers to participate



Conclusion

- Validate that EMS are in a **prime** position to provide interventions that can prevent future falls
- EBEP are beneficial to decreasing fall risks in seniors
- Brought awareness about dangers of falls to our community
- A comprehensive Elderly Fall Prevention Program is worth the time and effort



Future Goals

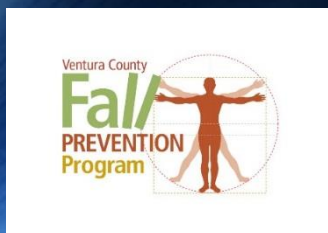
- Include fall prevention strategies as billable source
- Increase # of fall prevention coordinators
- Expand program to rest of county





Acknowledgement

- Ken Waxman, MD and Graal Diaz, RN, PhDc
- Chris Rosa, Katy Hadduck (and rest of EMS)
- Victoria Jump, Monique Nowlin, Karen Howard, Dina Ontiveras (VCAAA)
- Elena Gutierrez (VCMC injury prevention coordinator)
- Barbara Spratkes-Wilkins, Erin Slack (VC Public Health)
- Blair Cradock (Camarillo Health Care District)
- Amit Karmur, DO (Community Memorial Hospital)









AGING Innovations & Achievement
AWARDS



2015 n4a Aging Achievement Award

presented to

**Fall Prevention Program
of
Ventura County Area Agency on Aging**

*as a successful program that improves
the lives of older adults and caregivers*

Joe Ruby, President

National Association of Area Agencies on Aging (n4a)

Sandy Markwood, CEO



LOCAL FALL COALITIONS

Find out how local coalitions prevent falls in their communities.



NEWS

News relevant to the issue of Fall Prevention.

Leadership

Quotes from Prominent Voices in Fall Prevention



An ounce of fall prevention, is worth a pound of costly, painful, and life altering cure.

Thomas K. Duncan, DO, FACS | Diplomate of American Board of Surgery, Trauma Medical Co-Director, Chief of Staff Elect (July 2016 - June 2018) , Ventura County Medical Center



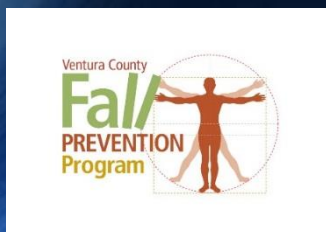
Partners & Affiliates



• FOMO

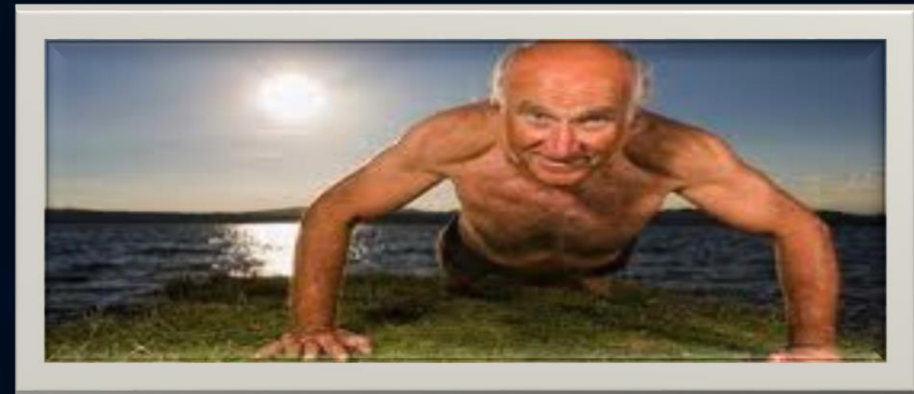


- We all have **FOMO**....but the most important aspect of life is **QOL**
- To maintain great **QOL**, it behooves us to enroll in **EBC** to acquire strength and balance, so that a **GLF** is prevented, and good **QOL** is achieved



The ultimate goal is.....

To reduce the number of preventable elderly injuries in Ventura County, and raise awareness regarding the need for County wide elderly injury prevention programs, thereby maintaining a good quality of life for our cherished citizens



Thank You!

