Geriatric Emergency Department Investment Initiative (GEDII):

Overview of the Web-app

Welcome to the GED Investment Calculator. This calculator is designed to assist Emergency Departments and health systems in estimating data and return-on-investment calculations associated with the implementation of GEDs and associated services delivered to older adults. Once you select data across each of the categories the calculator will provide cost and savings outputs across the following categories: startup costs, staff, supplies, and patient visit variables.

User Inputs

Accreditation & Location

- Accreditation level
- State of operation

Patient Population

- # of GED beds
- # of geriatric ED visits
- # of geriatric ED revisits
- # of geriatric Admissions from ED
- # of geriatric Readmission from index ED visit
- # of geriatric ED falls

Staffing

- # of Administrative, Allied Health Professionals, Nurses, physicians, patient council members

Advanced Inputs

Visit & Clinical Costs

- Value of geriatric hospital admission
- Value of geriatric hospital readmission
- Hourly cost of in-patient stays
- Value of geriatric ED visit
- Value of geriatric ED revisit
- Hourly cost of geriatric ED visit
- Cost of an ED patient fall

Staff & Supplies Costs

- Average salary of Administrative, Allied Health Professionals, Nurses, physicians, and patient council members; benefits as a percentage of base salary

Effects

Visit & Clinical Effects

- Risk ratios by GED accreditation level for hospital admissions, readmissions, hospital length of stay (in hours), ED visits, ED revisits, ED length of stay (in hours), falls
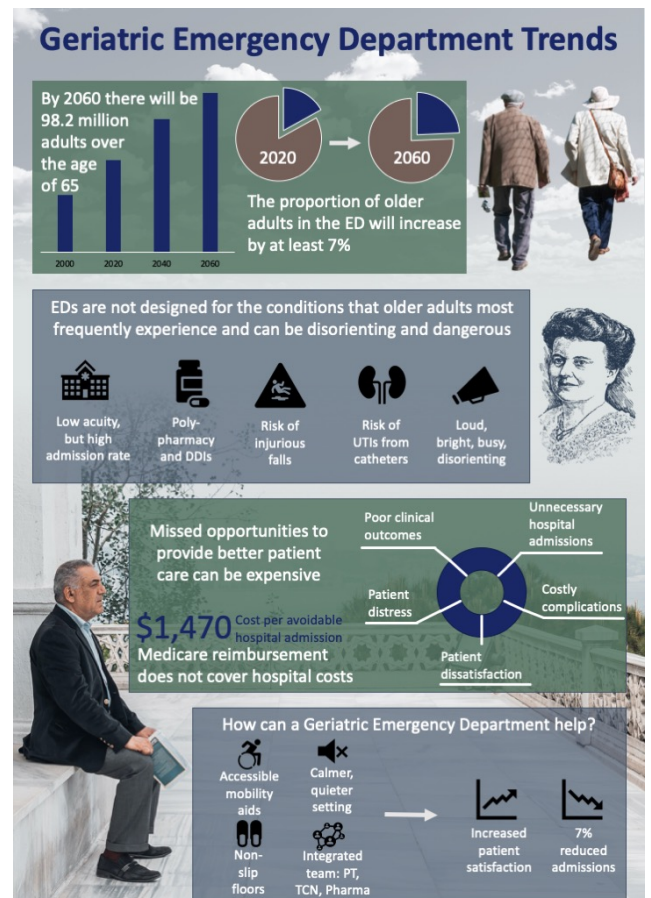
AD8

If the patient has an accompanying reliable informant, they are asked the following questions.

Has this patient displayed any of the following issues? Remember a "Yes" response indicates that you think there has been **a change in the last several years** caused by thinking and memory (cognitive) problems.

1. Problems with judgment (example, falls for scams, bad financial decisions, buys gifts inappropriate for recipients)?
2. Reduced interest in hobbies/activities?
3. Repeats questions, stories, or statements?
4. Trouble learning how to use a tool, appliance, or gadget (VCR, computer, microwave, remote control)?
5. Forgets correct month or year?
6. Difficulty handling complicated financial affairs (for example, balancing checkbook, income taxes, paying bills)?
7. Difficulty remembering appointments?
8. Consistent problems with thinking and/or memory?

Each affirmative response is one-point. A score of ≥ 2 is considered high-risk for dementia.

Abbreviated Mental Test-4

1) How old are you?
2) What is your birthday?
3) What is the name of this place?
4) What year is this?

Any error is considered high-risk for dementia.

Ottawa 3DY

1) What day is today?	**Correct**	**Incorrect**			
2) What is the date?	**Correct**	**Incorrect**			
3) Spell "world" backwards	Number correct				

0	**1**	**2**	**3**	**4**	**5**

4) What year is this?   **Correct**   **Incorrect**

A single incorrect response on any of these four items is consistent with dementia.

Emergency Department
Geriatric Dashboard

Objective:

Turning data points from 100s of ED geriatric patient encounters into a monthly organized table that can be used for process improvement
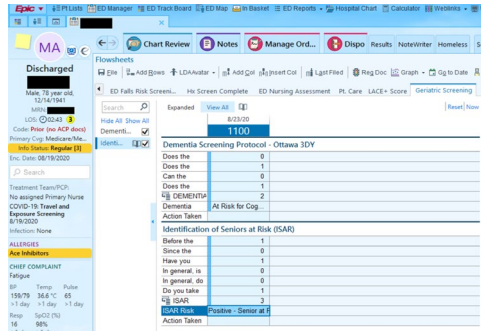

(ex of 78 y.o Male with + Dementia & Frailty screens)

ED Arrival Month	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	TOTAL
GLOBAL MEASURES							
Total ED Volumes (any age)	4660	4397	4139	3675	5676	5254	27801
Total ED Volumes (Geriatric)	578	617	590	469	663	776	3693
% of Total ED Visits	12.4%	14.0%	14.3%	12.8%	11.7%	14.8%	13.3%
Geriatric IPAdmits (% of Geriatric Volume)	299 (51.7%)	325 (52.7%)	309 (52.4%)	250 (53.3%)	336 (50.7%)	377 (48.6%)	1896 (51.3%)
ED Repeat Visits - 30 day	105	135	113	97	121	145	716
Readmissions (ED Admits) - 30 day	67	75	74	69	66	73	424
ED Visits > 8 hours	108	83	58	28	127	199	603
Deaths	15	26	33	23	32	41	170
Geriatric Consults (%)	11 (1.9%)	20 (3.2%)	6 (1.0%)	9 (1.9%)	16 (2.4%)	27 (3.5%)	89 (2.4%)
Geriatric Referrals (%)	2 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.3%)	0 (0.0%)	4 (0.1%)
SPECIFIC INITIATIVES							
DEMENTIA							
Dementia Screening Done (goal: 50%)	377 (65.2%)	447 (72.4%)	364 (61.7%)	210 (44.8%)	281 (42.4%)	346 (44.6%)	2025 (54.8%)
Positive Dementia Screen (% of screens done)	209 (55.4%)	264 (59.1%)	199 (54.7%)	108 (51.4%)	142 (50.5%)	180 (52.0%)	1102 (54.4%)
Positive Dementia Screen + SW Consult	86 (22.8%)	126 (28.2%)	88 (24.2%)	59 (28.1%)	67 (23.8%)	78 (22.5%)	504 (24.9%)
Positive Dementia Screen + Geri Consult	7 (1.9%)	11 (2.5%)	3 (0.8%)	2 (1.0%)	4 (1.4%)	8 (2.3%)	35 (1.7%)
ASSESSMENT OF FUNCTION							
ISAR Screening Done (goal: 50%)	374 (64.7%)	442 (71.6%)	358 (60.7%)	206 (43.9%)	279 (42.1%)	339 (43.7%)	1998 (54.1%)
Positive ISAR Screen (% of screens done)	260 (69.5%)	315 (71.3%)	240 (67.0%)	149 (72.3%)	190 (68.1%)	227 (67.0%)	1381 (69.1%)
Positive ISAR Screen + SW Consult	102 (27.3%)	142 (32.1%)	115 (32.1%)	72 (35.0%)	83 (29.7%)	87 (25.7%)	601 (30.1%)
FALLS							
Falls Risk Assessment Done (goal: 100%)	436 (75.4%)	483 (78.3%)	366 (62.0%)	255 (54.4%)	374 (56.4%)	464 (59.8%)	2378 (64.4%)
Positive Falls Risk (% of assessments done)	288 (66.1%)	334 (69.2%)	244 (66.7%)	181 (71.0%)	244 (65.2%)	289 (62.3%)	1580 (66.4%)
Positive Falls Risk + PT Consult	95 (21.8%)	94 (19.5%)	73 (19.9%)	49 (19.2%)	62 (16.6%)	82 (17.7%)	455 (19.1%)
PAIN & PALLIATIVE CARE CONSULT							
Pain/Palliative Care Consult (%)	6 (1.0%)	4 (0.6%)	3 (0.5%)	1 (0.2%)	5 (0.8%)	5 (0.6%)	24 (0.6%)
PHYSICAL RESTRAINTS							
Overall Restraint Use (%)	7 (1.2%)	5 (0.8%)	9 (1.5%)	4 (0.9%)	9 (1.4%)	6 (0.8%)	40 (1.1%)
PSYCHIATRIC CARE							
Psychiatric Consults (%)	8 (1.4%)	7 (1.1%)	8 (1.4%)	7 (1.5%)	8 (1.2%)	7 (0.9%)	45 (1.2%)

Materials Recommended:

- 3rd party data analytics application (we use HealthCatalyst)
- Pre-vetted data points and or measures that are identified in the EMR (ie. Consults orders, screen completions)
- IT meetings to establish purpose and functionality (ex creating a new interactive build vs monthly reports)
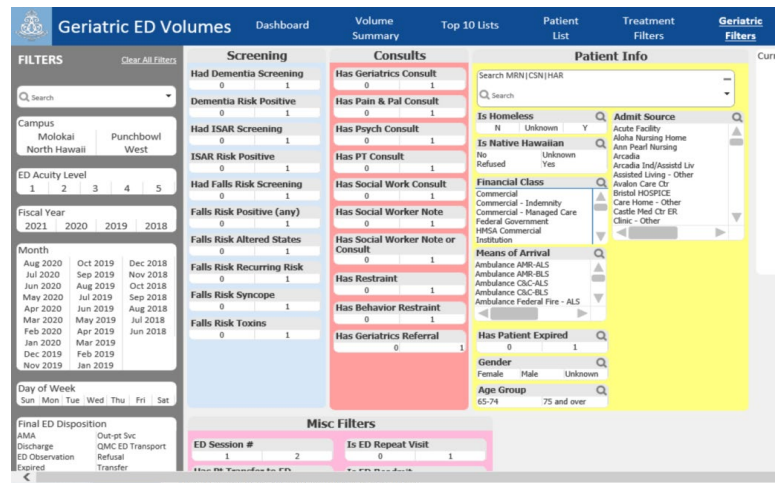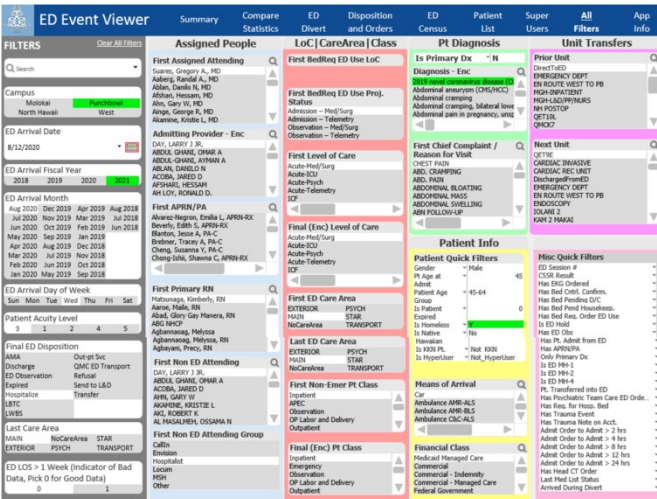
Pearls:

- Having a blend of demographic, throughput, screening and outcome metrics will keep it engaging for both floor staff and leadership
- Consider having a comprehensive annual/semiannual vs a focused fiscal year dashboard
- Obtainable goals and regular sharing of data can reinforce behavior and accountability (Hawthorne effect)

- **Queen's Medical Center (Oahu)**
- **67k, Honolulu, Level 1 Trauma**
- **Academic Center, 500+ Beds**

ACCREDITED
GERIATRIC
EMERGENCY DEPARTMENT
AMERICAN COLLEGE OF EMERGENCY PHYSICIANS

THE QUEEN'S MEDICAL CENTER

Opportunities in Prehospital Medicine

GEDC Transforming Dementia Care in the ED (and Beyond)--Virtual Booster Conference

September 3, 2020

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Opportunities

	Emergency Clinical Care 911 System / Interfacility Transports	Community EMS Population health interventions
Traditional Services	• Identifying dementia / impaired cognition • Measuring quality care for persons with dementia and their caregivers • Improving interactions with persons with dementia and caregivers • Delivering quality care • Adhering to goals of care	• n/a
Non-traditional Services	• Alternative destinations • Treat in place / telemedicine*	• Health monitoring • Care transitions (post-hospitalization, post-ED) support* • Coaching / support* • Friendly visitor program*

Needed Efforts

	Emergency Clinical Care 911 System / Interfacility Transports	Community EMS Population health interventions
Program Development	What is needed for the EMS system? Establish transdisciplinary team using team science principles Develop and implement state of the art approaches Evaluate outcome of program rigorously Sustainability	What is needed for the community? Establish transdisciplinary team using team science principles Develop and implement state of the art approaches Evaluate outcome of program rigorously Sustainability
Training	Attitudes, knowledge, skills • Geriatric Education for EMS • Additional didactic / experiential training	Attitudes, knowledge, skills • Some training available, but not targeted
Regulatory / Financial	Approved scope of practice Revise local / state / federal regulations Establish payment models	Establish new scope of practice Revise local / state / federal regulations Establish payment models

RN | Name | **to PHYSICIAN** | Name | **Date:**

Positive Senior Screen Hand-off Form

Those with dementia are at risk for not having needs met, largely due to communication deficits; every behavior has a meaning.

COGNITIVE IMPAIRMENT (Orientation Memory Concentration Test – OMCT)

○ **Positive**   ○ *Lives alone?*   ○ *No caregiver available, willing, or able?*

Physician/NP/PA Responsibility: ☐ **Document findings; Senior Wellness Clinic referral; assess safe discharge.** D/C instructions automatically print in AVS

Making the Case for Cognitive impairment screening: Does it really matter?

What year is it now?	☐ 0=Correct	1=Incorrect
Patient's response to current year:	☐	
What month is it now?	☐ 0=Correct	1=Incorrect
Patient's response to current month:	☐	
Repeat this phrase after me: "John Brown, 42 Market Street, Chicago."	☐ Able to complete in 3 trials	
	Unable to complete in 3 trials	
About what time is it now?	☐ 0=Correct	1=Incorrect
Count backwards 20 to 1.	☐ 0=Correct	
	1=1 error	
	2=2 or more errors	
Say the months in reverse order.	☐ 0=Correct	
	1=1 error	
	2=2 or more errors	
Repeat the memory phrase.	☐ 0=Correct	1=1 error	2=2 e
	3=3 errors	4=4 errors	5=5 o
Memory Concentration Score		
Memory Concentration Finding		

May not take medications at the correct time or may skip medications entirely

May miss appointments

May become confused by conflicting information because may believe it is a different month/year than it actually is

Attention (Foundation of memory). Memory is a process that involves 5 stages: Attention, Encoding, Storage, Consolidation, Retrieval

Sustained attention/working memory

Ability to maintain a consistent behavioral response during continuous and repetitive activity

If deficits in this area the patient may have difficulty with site safety eg. properly using stove or microwave, appliances, driving, med management, finances, poor historian, difficulty with hygiene

IS YOUR OLDER ADULT SAFE TO BE DISCHARGED CHECKLIST?

○ **SENIOR ASSESSMENT COMPLETED**

○ **POSITIVE SCREENINGS ADDRESSED**

  ➢ OMCT (cognitive impairment)
  ➢ Depression
  ➢ Delirium (avoid discharge of these patients)

○ **FUNCTIONAL IMPAIRMENT ADDRESSED**

  ➢ Durable medical equipment eg. walker?
  ➢ Home care?
  ➢ PT/OT? Gait stability assessed: TUG "timed get up and go"?

○ **SAFETY CONCERNS ADDRESSED?**

  ➢ Lives alone?   Caregiver availability? Caregiver strain?
  ➢ Concerns with cognitive impairment?
  ➢ Need for personal emergency response system?
  ➢ Concerns for abuse/neglect? Contact APS
  ➢ Driving concerns – contact State for driver's evaluation

○ **PAIN ASSESSMENT?**

  ➢ Palliative Care; multi-modal pain management (Acetaminophen)

○ **MEDICATION REVIEW**

  ➢ **for inappropriate prescribing**

○ Have you confirmed the patient/family has a good understanding of discharge plan?

○ Does the patient feel comfortable and ready for discharge? Any worries expressed by the patient or caregiver?

○ Advanced care planning – what matters most addressed?

○ Has the plan of care been communicated to the patients PCP?