



Orthopedics and
Sports Medicine

Emergency
Medicine

GAME TIME CONSULTS

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OBJECTIVE



Evaluate the utilization patterns and satisfaction of telemedicine on the sideline.

Rate of utilization

Will rate high on satisfaction



Evaluate the effect of sideline telemedicine on reducing unnecessary emergency department visits.

Decrease ED visits/referrals



The Telemedicine providers will be able to use this technology to appropriately triage the athlete.

No compromise in care

THE TEAM



Dr. Kristi Colbenson
Emergency/Sports Medicine



Dr. Neha Raukar



Dr. Chris Russi



Dr. Luke Wood
Emergency Medicine

SIDELINE MEDICINE

Lack of sideline expertise forces parents to use local emergency departments to address non-critical musculoskeletal conditions and concussions

This burdens an already overwhelmed health care system

Adding to this is the closure of hospitals, especially in rural America



TELEMEDICINE

From home to the sideline
Transition eased by COVID19
pandemic



METHODS

- Recruited schools
- Informed parents
- Injury
 - Call Physician on Call on cell phone
 - If child <18, consent parent
 - If child \geq 18, can treat
 - Activate iPad (or cell phone)
 - iPad was compliant with patient privacy rules
 - Secure platform
 - No calls recorded
- Demographic Information obtained
- Follow up
 - Phone call
 - Ask about technology
 - Follow up on diagnosis





ACUTE MEDICINE

- Injured patient
 - Do they need to go to the Emergency Department for stabilization or acute intervention?

- Diagnosis

RESULTS

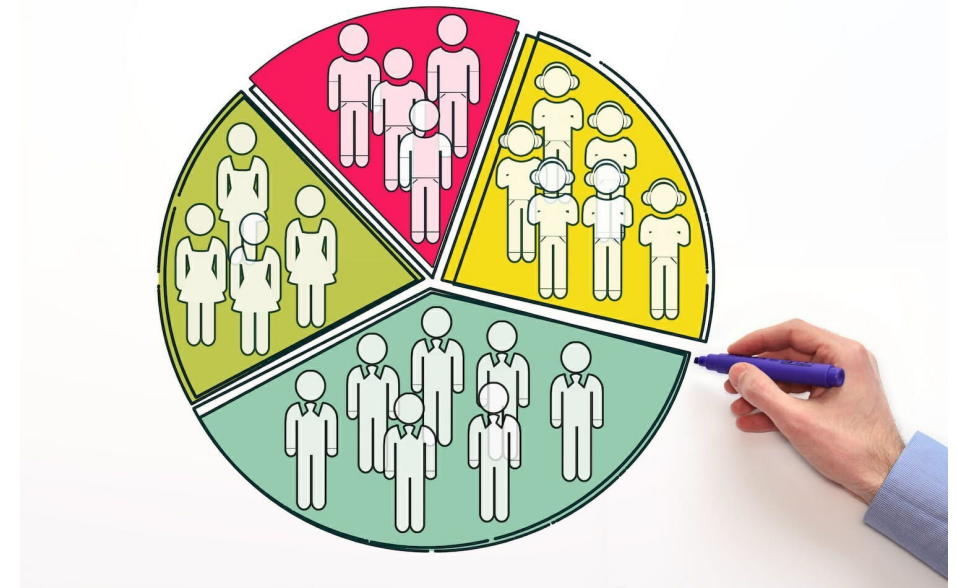
4 schools Fall and Winter
 5 schools in Spring
 Covered multi-school competitions

Football	3
Volleyball	1
Basketball	4
Wrestling	1
Dance	1
Softball	2
Baseball	1
Cross Country	1
	14

JV	7
V	7
Other	1

Male	8
Female	7

MSK	Head	Other
8	2	5



DIAGNOSES

Provisional Diagnosis	Recs	Final Diagnosis
Concussion	Out, F/u PCP	Concussion
Right wrist sprain, no fx	RTP, F/u PCP	Right wrist sprain
Hit in chest - Chest wall contusion	Observe	Chest wall contusion
Groin injury - ?Torsion	ER	Testicular torsion
Concussion	Out, F/u PCP	Concussion
Shin splint	Rest, F/u PCP	Stress reaction
L knee contusion	RTP, F/u PCP	L knee contusion
Rash/impetigo	Out, F/u PCP	Impetigo
L ankle sprain- no fx	RTP, F/u PCP	L ankle sprain
Unstable Angina	ER	Unstable Angina/NSTEMI
r/o COVID	Out, F/u PCP	COVID
Trauma, Lumbar contusion	RTP, F/u PCP	Back contusion/sprain
L knee sprain	RTP, F/u PCP	L knee sprain
heat exhaustion	Rest	Heat exhaustion
R RCS	Rest, F/u PCP	R RCS

THE TELEMEDICINE SATISFACTION SCALE

How satisfied were you with:	
The voice quality of the equipment	4.00
The visual quality of the equipment	3.96
Your personal comfort using the Telehealth System	4.00
The ease of getting to the Telehealth Physician	3.93
The length of time with the Telehealth Physician	4.00
The explanation of your treatment by the Telehealth Physician	4.00
The thoroughness, clarity, and skillfulness of the Telehealth Physician	4.00
The courtesy, respect, sensitivity, and friendliness of the Telehealth Physician	4.00
How well your privacy was respected	3.89
How well the staff answered your questions about the equipment	4.00

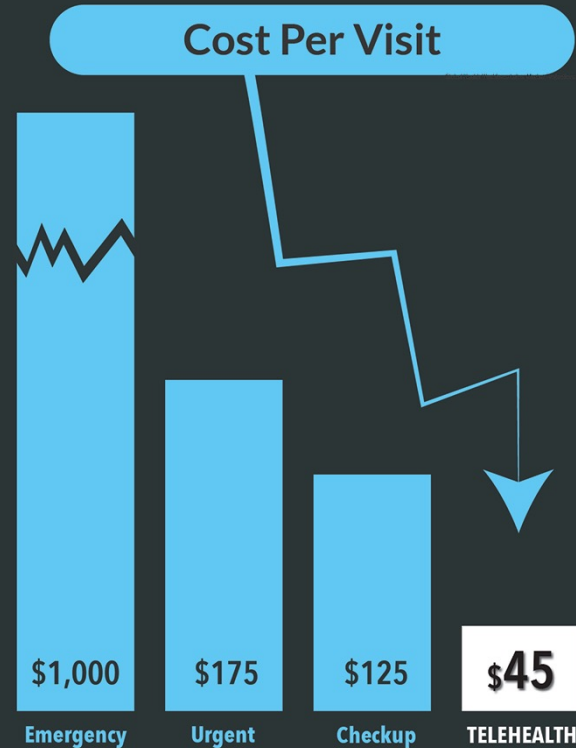
BENEFITS

- Efficient
- Multiple sidelines at once
- One provider per multiple schools



BENEFITS

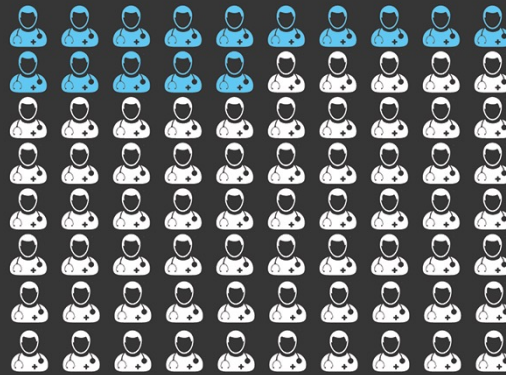
Telehealth costs **64%** less than a visit to the doctor's office



Source: Quote from Teladoc CEO Jason Gorevic, <https://www.usnews.com/news/healthcare-of-tomorrow/articles/2018-02-27/can-telemedicine-be-both-cost-efficient-and-high-quality>

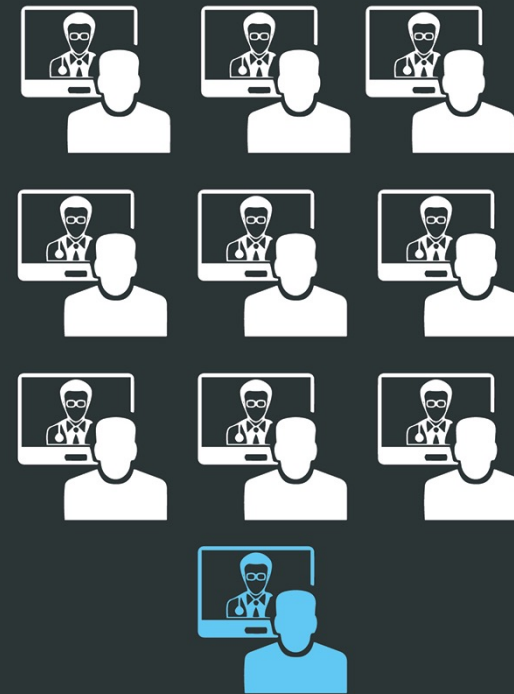
aluanice
DIGITAL SERVICES

Doctor shortage of **15 million** by 2030 vs. 80m global demand



Source: Global Health Workforce Labor Market Projections for 2030, <https://doi.org/10.1186/s12960-017-0187-2>

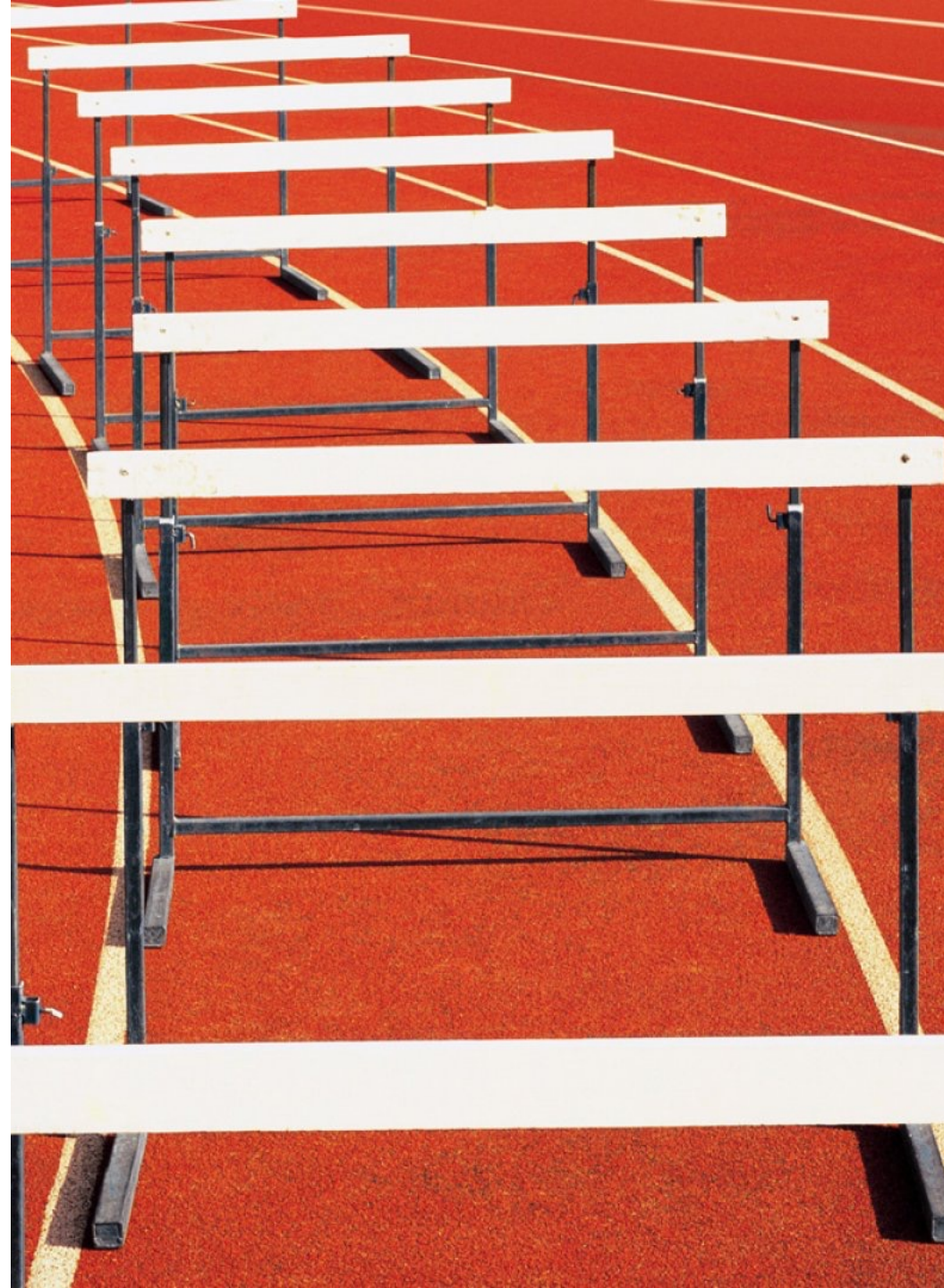
9 in 10 people aged 40+ are open to using telemedicine



Source: Poll from The Associated Press-NORC Center for Public Affairs Research quoted here <https://www.insurancejournal.com/news/national/2018/06/07/491490.htm>

HURDLES

- Technology
 - Equipment
 - Service
- Patient privacy
- Recruitment
 - Common in telemedicine
 - Not direct to consumer – school has to be on board
 - Need to discuss with athletic directors, superintendents, officials



BUDGET



Equipment

iPads – 10
-Plus 1

Service

Verizon Cell Service

Consent forms/Admin/Stats

From Internal Mayo Grant

OBJECTIVE

Specific Aim 1: Evaluate the utilization patterns and satisfaction of telemedicine on the sideline.

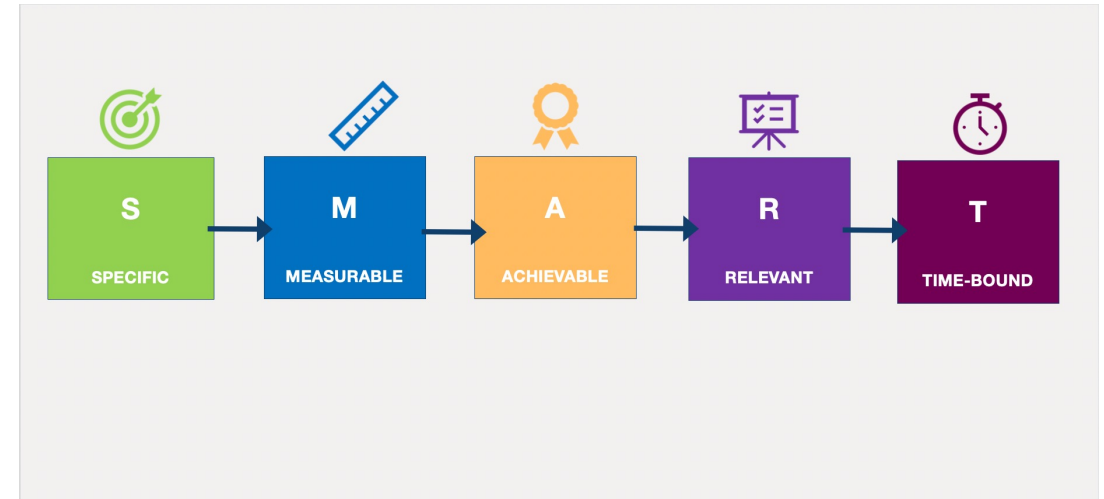
- Rate of utilization
- Will rate high on satisfaction

Specific Aim 2: Evaluate the effect of sideline telemedicine on reducing unnecessary emergency department visits.

- Decrease ED visits/referrals

Specific Aim 3: The Telemedicine providers will be able to use this technology to appropriately triage the athlete.

- No compromise in care



THE FUTURE

- Subscription Service
- Embed into current practice



QUESTIONS & DISCUSSION

