

EM PHYSICIAN

Workforce of the Future

Mark Rosenberg, DO, MBA, FACEP

March 9, 2021

Report of the EM Physician Taskforce

No live chat during the webinar
but an open forum will be available
at the conclusion of today's presentation

Two years ago...

- Several organization leaders and individuals were concerned about projected supply and demand for emergency and acute, unscheduled care by emergency physicians
- Many others, however, thought that there was still a shortage and questioned any over supply in the future
- Two years ago ... there were plenty of good jobs
- Two years ago ... there was no COVID

**Over 2 years ago, we came together as a taskforce, a team:
8 EM organizations with a common goal ...**

- ABEM
- ACOEP
- AOBEM
- ACEP
- EMRA
- CORD
- SAEM
- AACEM

We had amazing leadership



Catherine Marco, MD, FACEP



Edward S. Salsberg and his team at GWU

Our specialty has been working for decades to create and sustain a workforce

A workforce that meets the growing emergency medicine needs of our country.

But Now...

We are also seeing external forces start to reshape our specialty

And

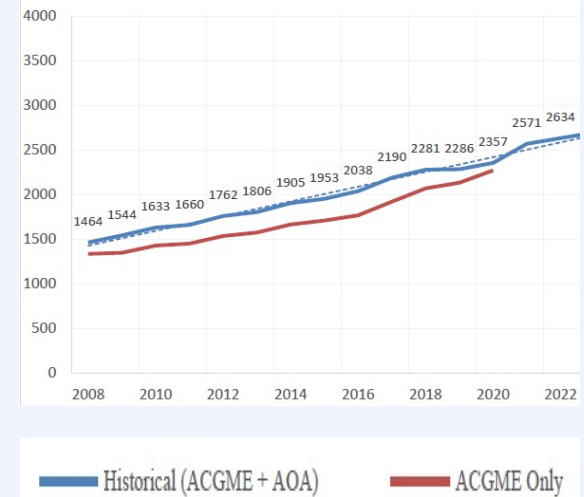
recognize that our profession must adapt to developing trends.

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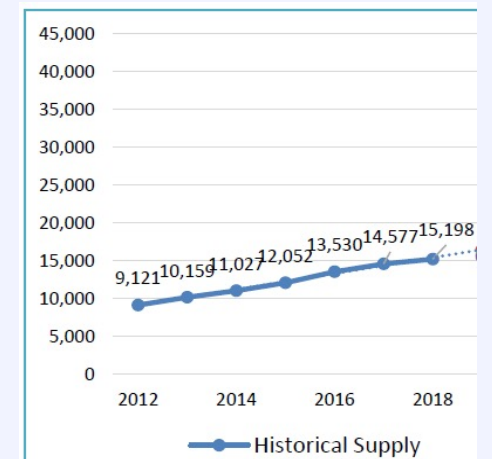
We saw the rise in EM residencies

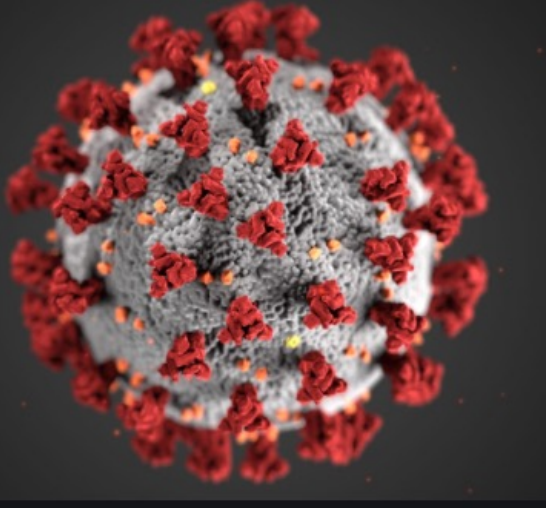
We saw the rise in NPs and PAs working in our EDs

EM Residencies



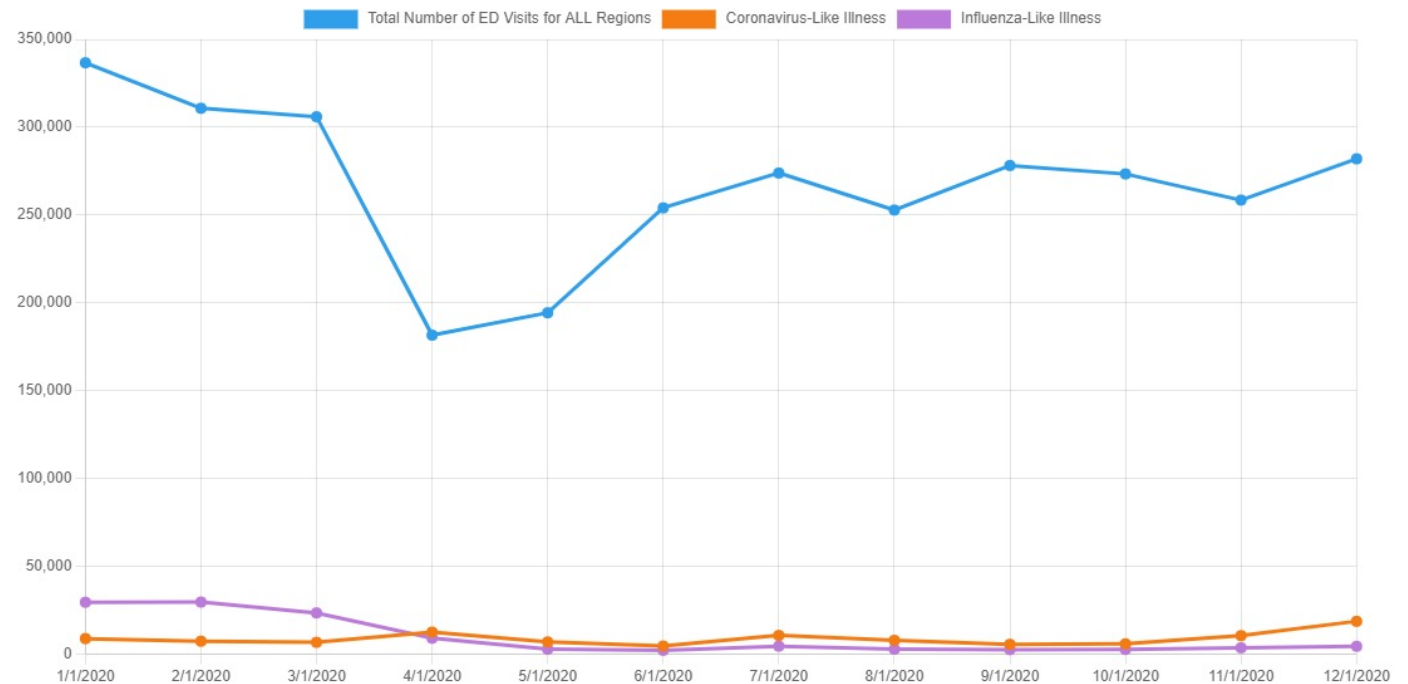
NPs and PAs





And...

COVID accelerated the future



Creating...

a developing supply/demand mismatch that was front and center.

We are facing –
for the first time in history –
a likely oversupply
of emergency physicians in the next decade.

Why this study and this report...

The detailed report findings are critical to identify and understand the real cause of the challenges we now face,

This data-driven, forward-looking approach is necessary to protect and evolve the profession of emergency medicine.

Workforce of the Future

Now we know the problem

- **Now we know the problem**
- **Today we start our journey to find the answers**

The task ahead of us is daunting



But ...

**Together we can fix
ANYTHING**

Thank you

- To the taskforce members
- To our partner organizations

*Special thanks to Christopher S. Kang, MD,
FACEP, Chair of the ACEP Board of Directors and
Board liaison to this Taskforce.*



The secret of change is to focus all of your energy,
not on fighting the old,
but **building on the new**
- Socrates

Thank You

Thank you to all of you
for the work you do every day
to save lives and reduce suffering.

General Information:

During the webinar
the “Question and Answer” function
And
the “Chat” function are not available.

General Information:

Please send all Q&A and Comments to:

workforce@acep.org

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Sandra M Schneider MD FACEP
Catherine Marco MD FACEP

March 9, 2021

- Reminder

Q & A/Chat are disabled

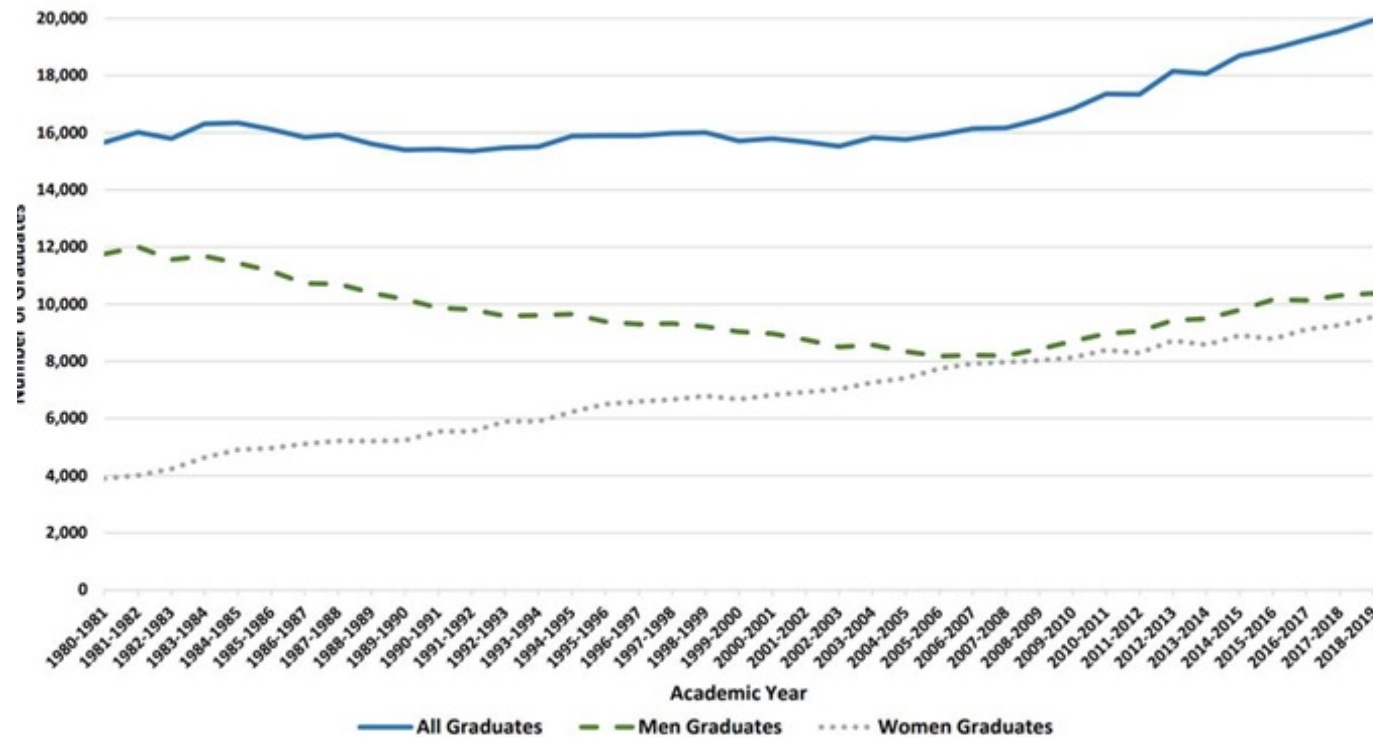
You can comment at workforce@acep.org

2 years ago...

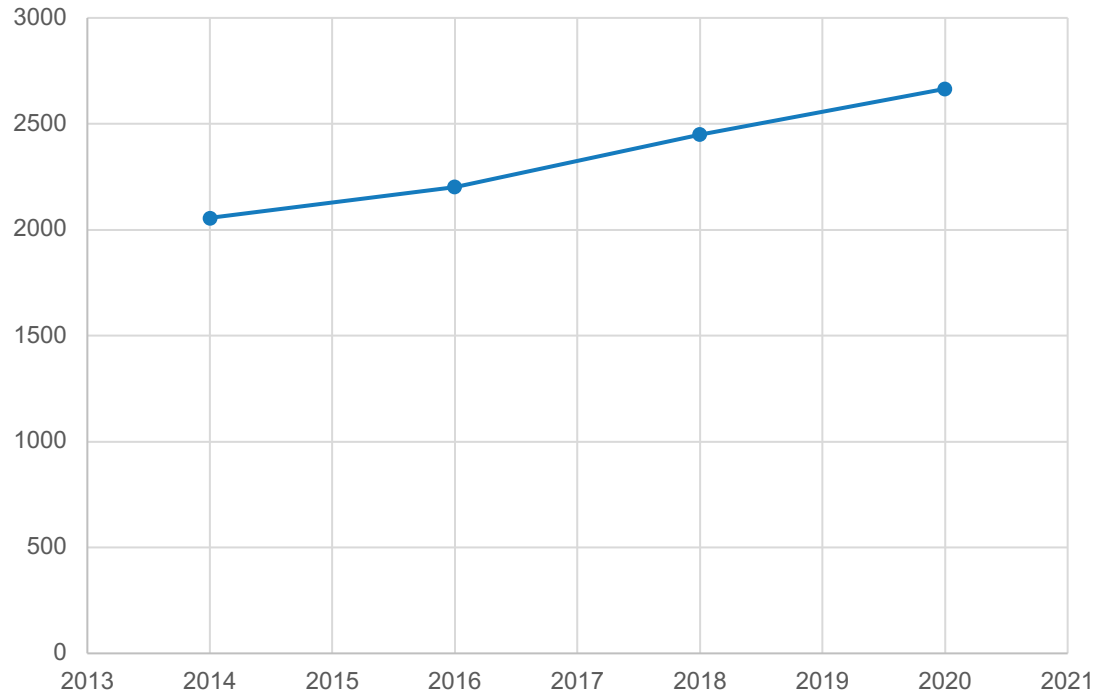
Medical students

Academic Years 1980-1981 through 2018-2019

The graph below displays the number of graduates of U.S. medical schools by sex from academic years 1980-1981 through 2018-2019. Graduates who declined to report sex are only reflected in the "All Graduates" counts.



There has been an increase in residency programs



- Fastest growth among specialties
- Growth independent of AOA inclusion
- Growth in for-profit hospitals
- State incentives

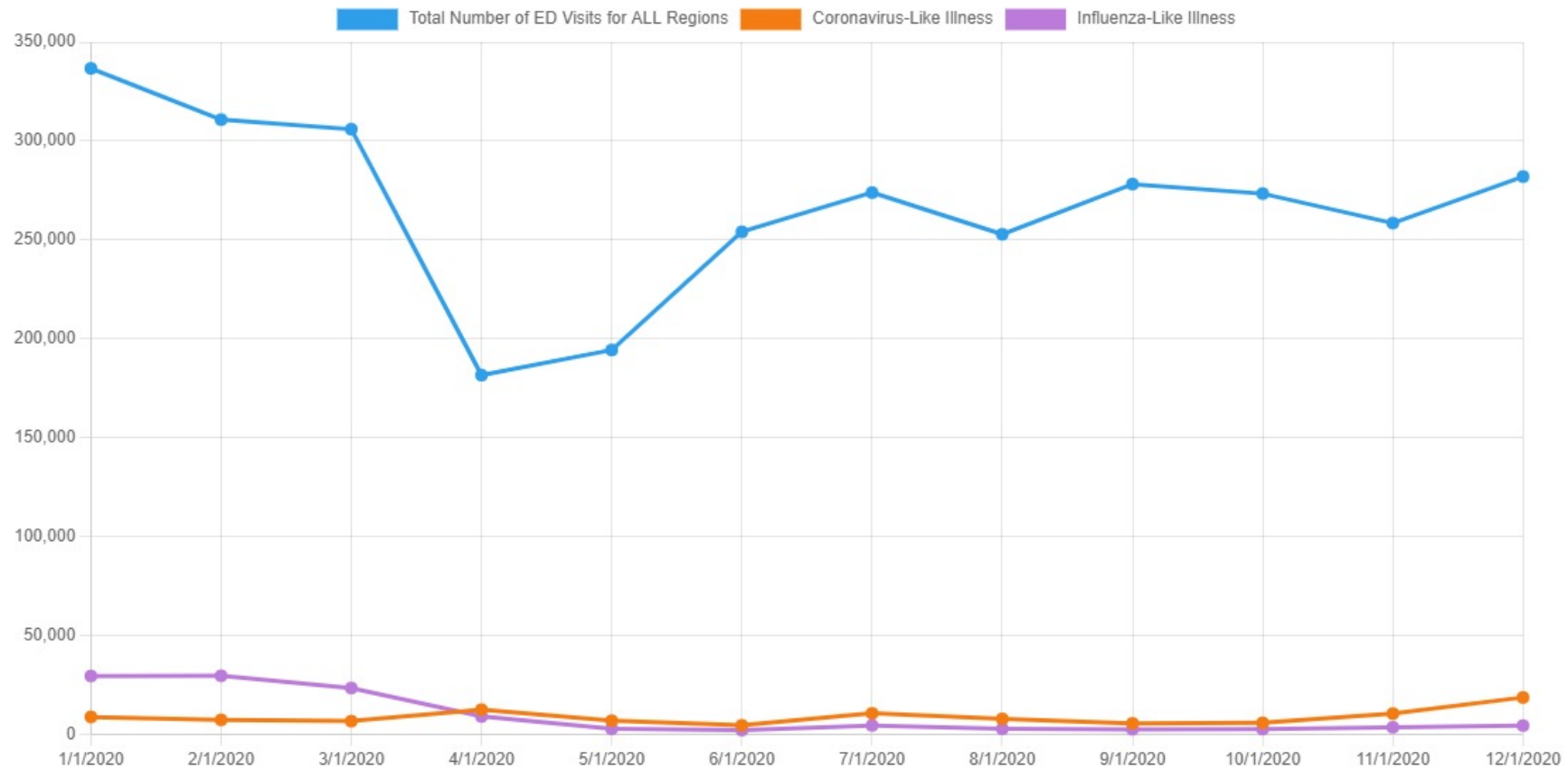
Many saw a pending surplus, many did not

- ACEP Partners

- ▶ AACEM
- ▶ ABEM
- ▶ ACOEP
- ▶ AOBEM
- ▶ CORD
- ▶ EMRA
- ▶ SAEM

- Ed Salsberg, noted physician workforce expert
- Supply: Medicare claims of at least 10 claims in a year between 2012-2018 (physicians/NPs/PAs)
 - ▶ Cross checked with AMA database
 - ▶ Determined EM trained/non EM trained physician
 - ▶ Calculated average attrition
- Demand
 - ▶ Calculated average productivity per physician/NP/PA
 - ▶ Calculated demand by age group (NEDS)
 - ▶ Estimated population in that age group in 10 years

Covid accelerated our future



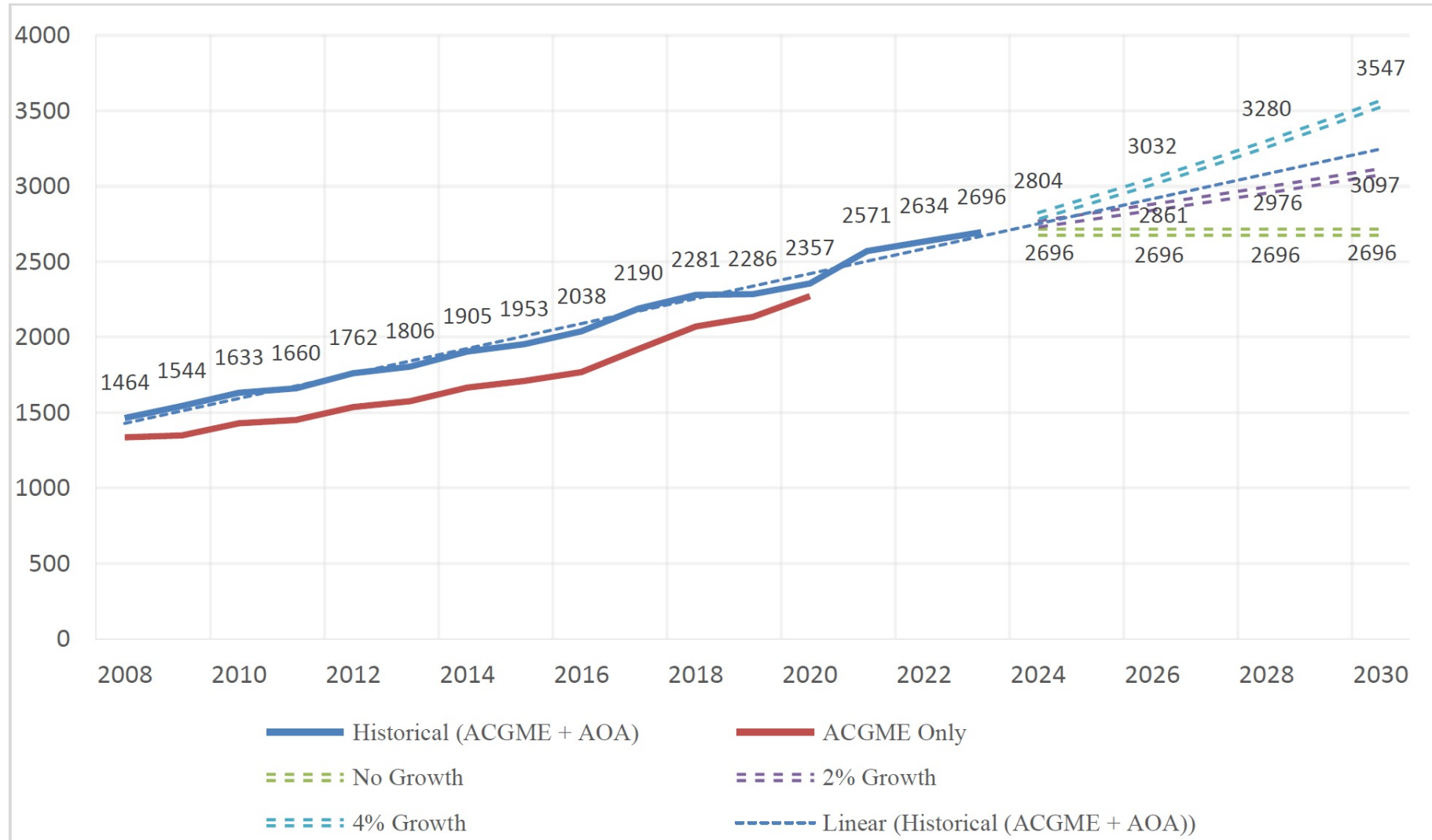
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- 2019 20% of residents said they had some degree of difficulty finding a job in the location they wanted, at a salary they wanted
- 2020 saw withdrawal of contracts and much greater problems with finding jobs
- 2021 anecdotal reports of difficulties

Manuscript pending

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Figure 1. Historical Trends and Projected Growth of EM Residents Completing Training in 2030

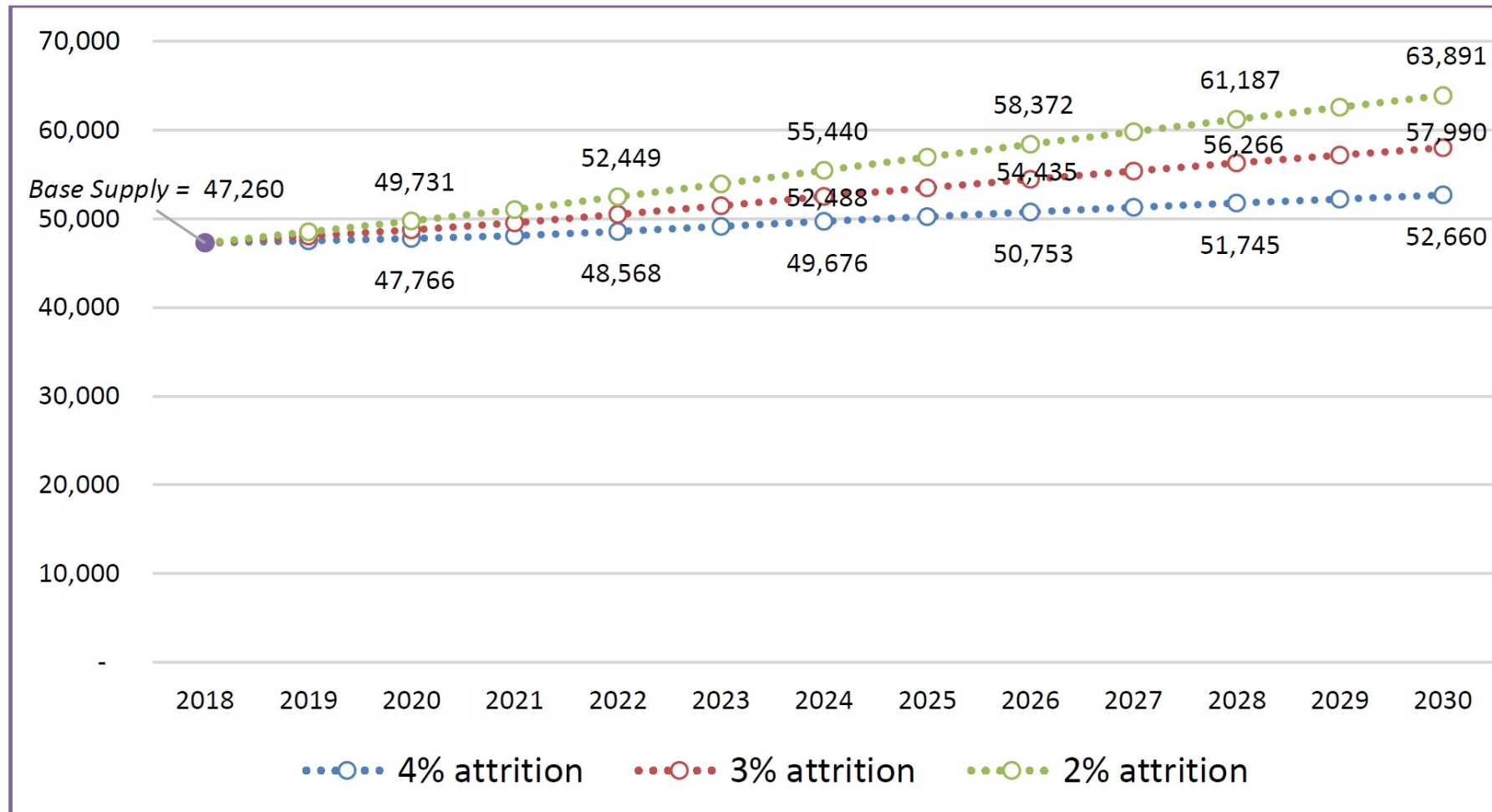


Attrition

- 3.5-4% per year
- Higher in the older docs (15% over 70)
- Lower in younger docs (<2%)

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Figure 4. Projected Supply of EM Physicians Assuming No GME Growth and Varying Attrition



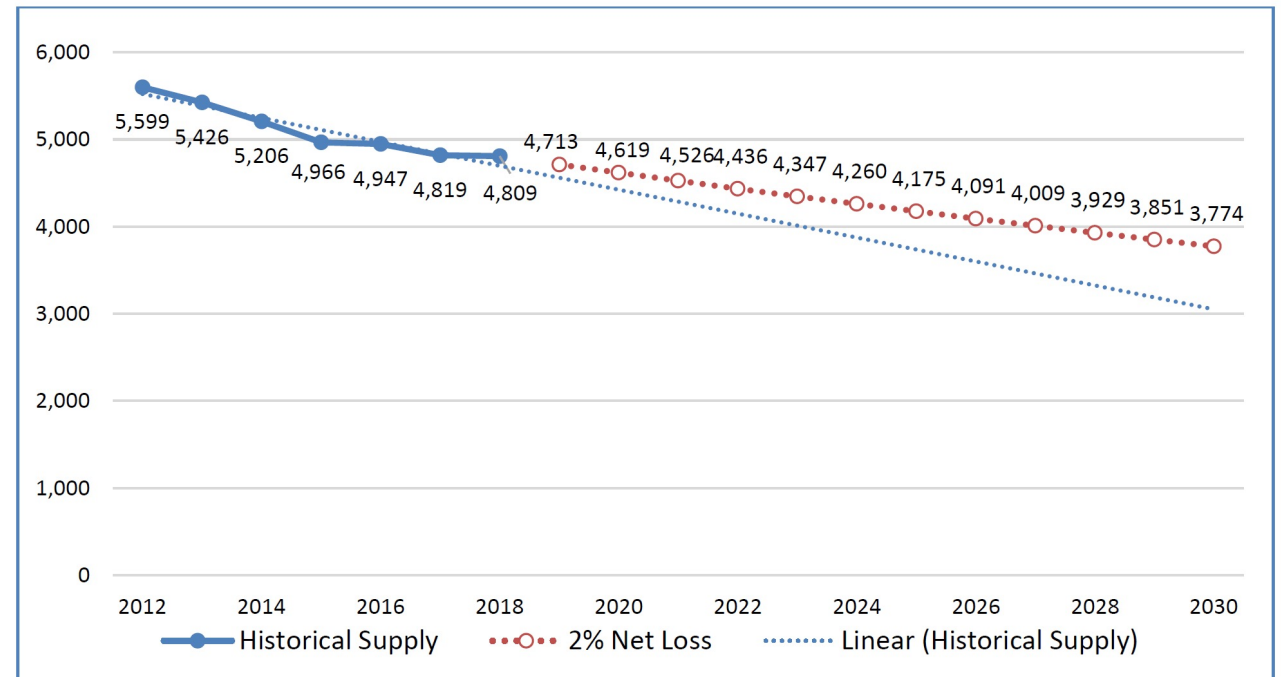
EM physicians

- Baseline 2018 70% of workforce

Non EM physicians

- Small numbers ~7% of the workforce now
- Rapid attrition

Figure 5. Projected Supply of Non-EM Physicians Providing EM Services

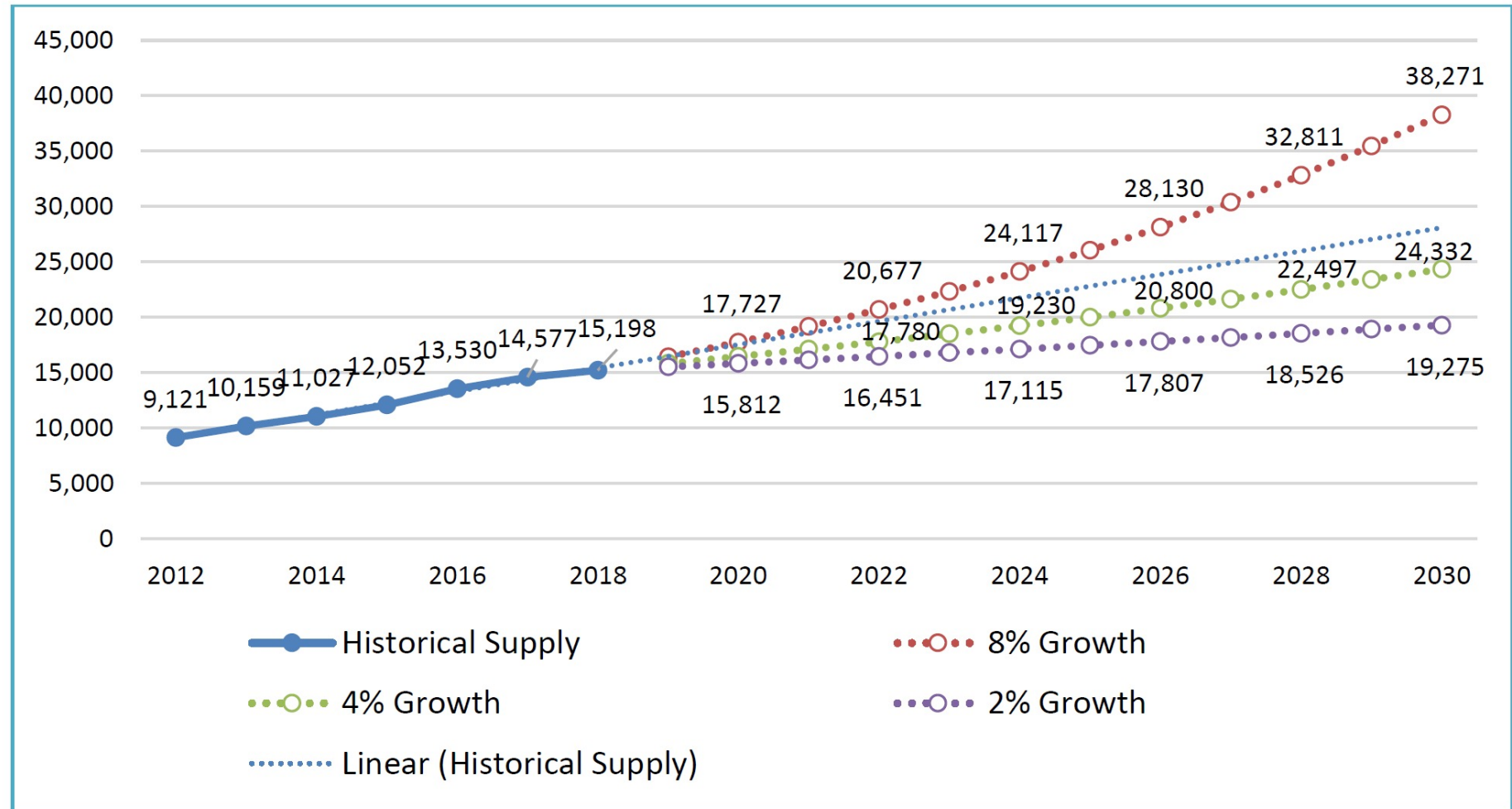


NP/PA

- 2018 PAs ~15%
- NPs~ 8%
- Rapid growth over the past several years

NP/PA

Figure 6. Projected Supply of APPs Providing EM Services



Demand

- Used population estimates from the US Census Bureau for 2020-2030
 - Used NEDS data to project utilization by age
 - We assumed that in 2030 we would recover most of the loss of 2019
 - This takes into account the 'greying of America'
- **Volume in NEDS in 2017**
 - ▶ **144M**
 - **Volume projected for 2020**
 - ▶ **149M**
 - **Volume projected for 2030**
 - ▶ **163M**

Supply vs Demand 2030- if nothing changes

- Non-EM physicians providing EM care will be negligible
- ED volume will mostly recover after COVID
- Visits per physician will remain stable

2030 – If nothing changes

- Salsberg provided a formula that can be adjusted

- Supply
 - ▶ 2% growth in residents; 98% enter EM; 3% attrition
 - ▶ **Projected supply 59,050**
- Demand
 - ▶ Visits per physician constant; 20% seen by NPs/PAs,
 - ▶ **Projected demand 49,637**
- Surplus
 - ▶ **Surplus of EM physicians 9,413**

2030 – If nothing changes

- Salsberg provided a formula that can be adjusted

- Supply
 - ▶ 2% growth in residents; 98% enter EM; 3% attrition
 - ▶ **Projected supply 59,050**
- Demand
 - ▶ Visits per physician constant; 15% seen by NPs/PAs,
 - ▶ **Projected demand 52,740**
- Surplus
 - ▶ **Surplus of EM physicians 6,310**

2030 – If nothing changes

- Salsberg provided a formula that can be adjusted

- Supply
 - ▶ 4% growth in residents; 98% enter EM; 3% attrition
 - ▶ **Projected supply 60,183**
- Demand
 - ▶ Visits per physician constant; 20% seen by NPs/PAs,
 - ▶ **Projected demand 49,637**
- Surplus
 - ▶ **Surplus of EM physicians 10,546**

- This formula provides us a way to project how changes to our supply and demand will influence our workforce needs
- It provides us a way to monitor our progress going forward.

- **May be worrisome to some, but really it is an opportunity to make our specialty better**
- **We want to hear your comments**
 - ▶ **Workforce@acep.org**

We had amazing leadership

- Catherine Marco, MD FACEP
- Ed Salsberg and his team at GW



Public comments

- Workforce@acep.org

Thank You

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Workforce of the Future

Supply Subgroup I: Fiona E. Gallahue: CORD
Mark Courtney: SAEM
Mary Nan S. Mallory: ABEM
Ben Godfrey: AOBEM
Wendy W. Sun: SAEM-RAMS

March 9, 2021

Supply Recommendations

Residency Training

Extend Residency Training Format to 4-Years Maintain Total Complement

- Advantages: PD's surveyed reported that the ideal training format would be >3 years (mean 39.2 months).
- The complexity of emergency medicine (EM) has evolved significantly since the 1980's when the 3-year format was adopted and would better prepare graduates for the specialty
- Challenges: Moderately challenging but feasible.
- 1. Would require the EM-RC to adopt this format.
- 2. Would require program directors and EM residents to embrace this training format without increasing complement.
- Impact would be modest
- Lead Organization: CORD

Program Director Opinion on the Ideal Length of Residency Training in Emergency Medicine

Laura Hopson, MD, Linda Regan, MD, Michael A. Gisondi, MD, James A. Cranford, PhD, and Jeremy Branzetti, MD

Abstract

Objective: This study sought to define expert opinion on the ideal length of training (LoT) for Accreditation Council of Graduate Medical Education (ACGME)-accredited emergency medicine (EM) residency programs.

Methods: A cross-sectional Web-based survey was sent to program directors (PDs) at all ACGME-accredited EM residency programs during a study period of August to October 2014. The primary outcome of ideal LoT was determined in two ways: 1) subjects provided the ideal total LoT in months and 2) then separately selected the type and number of rotations for an ideal EM residency curriculum by month, the sum of which provided an alternative measurement of their ideal LoT. We did not include vacation time. Descriptive statistics and an analysis of variance are reported.

Results: Response rate was 88.0% (106/120) with 72% of respondents (76/106) directing programs in the PGY 1-3 (36-month) format and 28% directing PGY 1-4 (48-month) programs. More than half of subjects (51.9%) have direct personal experience with both formats. When asked about ideal total LoT, PDs averaged 41.5 months (n = 107); SD = 5.5 months, range = 36-60 months. When asked to provide durations of individual clinical experiences for their ideal EM program, the sum total (n = 104) averaged 45.0 months. Results from a factorial analysis of variance revealed statistically significant effects of PD's past training experience; participants who trained in a 36-month program had statistically significantly lower LoT (mean = 39.2 months) than participants who trained in a 48-month program (mean = 44.5 months). There was also a statistically significant effect of current program format on ideal LoT; participants who directed a 36-month program had statistically significantly lower LoT (mean = 39.8 months) than participants who directed a 48-month program (mean = 45.8 months).

Conclusions: PD opinion on ideal LoT averages between 36 and 48 months, but is longer when the sum of desired clinical rotations is considered. While half of the respondents reported direct experience with both PGY 1-3 and PGY 1-4 training programs, opinions on ideal LoT through both methods corresponded strongly with the length of the program the PDs trained in and the format of the program they currently direct. PD opinions may be too biased by their own experiences to provide objective input on the ideal LoT for EM residency programs.

Increase EM-RC Procedural Requirements to be More Robust

- Currently, EM procedural requirements around certain core procedures is relatively low than what may be appropriate for graduates in the specialty. Specifically central lines (20), intubations (35), and procedural sedations (15). There is some literature around intubations suggesting that 50-60 are required to achieve competence. Some newer techniques such as nerve blocks should likely be included as well.
- Advantages: Establish educational standards for core procedures to ensure patient safety based on current evidence and industry specialists.
- Disadvantages: There is not robust literature on the numbers needed to establish competence.
- Feasible
- Impact: Unclear
- Lead Organization: CORD

JOURNAL OF BRONCHOLOGY & INTERVENTIONAL PULMONOLOGY

Graduating Fellows' Procedural Comfort Level With Pulmonary Critical Care Procedures

Knox, Daniel B. MD; Wong, William W. DO [Author Information](#) 

Journal of Bronchology & Interventional Pulmonology: October 2019 - Volume 26 - Issue 4 - p 231-236

doi: 10.1097/LBR.0000000000000563

Increase Resident Salaries

- Current resident salaries have remained relatively flat despite increasing indebtedness of students.
- Advantages:
 - ▶ This would decrease incentives for residencies to be established for the purpose of providing low-cost labor.
 - ▶ This would encourage better diversity in medicine for students from less well-off financial backgrounds including URiM students
- Disadvantages:
 - ▶ Could adversely impact non-profit academic hospitals significantly who have the most constrained budgets. These hospitals frequently care for the most vulnerable patients so could compromise patient care for these patients.
- Feasibility would have to be assessed more carefully as this would be a widespread change nationally.
- Impact: Unclear
- Lead Organization: SAEM with significant support from others

Investigate Legality of For-Profit Organizations Funding Training Programs

- There may be conflicts of interest between the business interests of for-profit organizations with the service needs of educating a workforce to care for our communities.
- Advocate for further research into the law with ACEP legal specialists to see if patient care needs are being served via this model and the law followed. Establish a task force to investigate further.

Supply Recommendations

NP & PA's working in the Emergency Department (ED)

Support Standardized Training and Certification for APPs Working in the ED

- The ED is a unique environment with significant challenges of dynamic patient care and limited information on patients. Establishing a minimum training expectation for all APPs who are hired to work in this environment would assist in ensuring patient safety as would a standardized credentialing and certification process via ABEM.
- Advantages: Ensures that all licensed providers caring for patients in the ED are trained to do so safely.
- Disadvantages: Would require ABMS to be willing to oversee credentialing of non-physicians. RN and PA organizations would have to agree to a coordinated credentialing process.
- Unclear feasibility
- Impact: Large
- Lead Organizations: SEMPA, ABEM, SAEM

Ensure Physician Led Teams Model is Endorsed and Promoted Ubiquitously

- Physicians are trained to recognize the subtleties in patient presentations. They have more experience and training to appropriately triage patients to the correct provider. Physician assistants and nurse practitioners play a valuable role in the ED. A team-based model ensures patient safety and quality care. The current model of care by physician assistants endorses this team-based model. Coordinate with PA groups and interested NP groups to promote this model of team-based care.
- Advantages: Reinforces the value of non-physicians are valuable care providers in the ED environment while ensuring safe and quality patient care. Aligns with current PA model of care.
- Cons: Likely to face resistance from some of the nursing and nurse practitioner groups as well as some hospital administrators.
- Unclear if this is feasible but would have large impact on patient care in our specialty
- Lead Organizations: ACEP, SEMPA

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Workforce of the Future

Supply 2

March 9, 2021

Supply 2 Members

Haig Aintablian, MD AAEM-RSA

Gabor Kelen, MD ACEP

Louis Ling, MD

Lewis Nelson, MD AACEM

Nathan Vafaie, MD MBA EMRA

How many graduates do we need?

- In the March 2021 NRMP Match, EM filled 2826/2840 (99.5%) who will graduate and join the workforce in 2024 and 2025. In 2015, there were 1953 graduates.
- How many graduates would create a steady state to match the demand in 2030? Most likely estimate for demand of 51,205 EPs in 2030.
 - ▶ If an average graduate works for 30 years, 51,205 physicians/30years would predict a steady state supply of about 1707 graduates/year, about 1119 fewer than will graduate in 2025.
 - ▶ To reach steady state, we need to decrease by 1119 graduates a year
- The group members categorized efforts to decrease the supply into three categories:
 1. Strategies to address new residency programs
 2. Strategies to address current residency programs
 3. Strategies to address non-emergency physicians

Strategies to address new programs

1. Fewer residents in each new program

Pros

- Could be voluntary
- New requirements for minimum experience could give more resuscitations, procedures, more selective experience to fewer residents
- Could hire more EPs to primarily see non-teaching patients
 - ▶ Similar to other specialties

Cons

- Unknown [unlikely] compliance with voluntary decrease
- Requires replacement workers to provide care, increases cost
- Causes change for current program, could increase PD stress
- Is there a need for critical mass within a program, an absolute minimum?
- Process to change requirements through ACGME

Feasibility

High

Impact

Potentially large

Lead Organization

AACEM with SAEM

2. Fewer or no new programs

Pros

- Would have to be voluntary like other specialties
- Mandated reduction requires new ACGME requirements for more resources, more faculty protected time, better experience will improve resident experience of programs that are approved

Cons

- ACGME cannot withhold approval if program meets program requirements
- Increases cost, may increase PD effort
- Difficult to differentiate poor quality programs
- Local incentive for programs may not align

Feasibility

High

Impact

Potentially large

Lead Organization

SAEM with CORD

3. Educate harm of new programs within EM

Pros

- Easy to educate within the specialty
- Other specialties have an expectation of stable size
- May slow growth voluntarily
- This webinar is example

Cons

- This will not likely convince non-emergency physicians such as for-profit hospitals or contract management groups
- May be misinterpreted as anticompetitive
- May deter some highly qualified medical students

Feasibility

High

Impact

Likely low

Lead Organization

All

Low feasibility strategies to affect new programs Considered but not recommended

- Ethical review by RRC or ACGME to identify programs misusing residents for cheap labor. Difficult to define since all programs rely on residents to care for patients. ACGME has confidential resident and staff complaint process to initiate investigation.
- ACGME/RRC shutting down all approvals for all new programs. This violates Sherman Anti-trust legislation preventing competition for well paying employment
- Work with CMS to not fund new programs in non-teaching or for-profit hospitals. All other specialties favor increased support for new programs. All programs already are reviewed for quality (by ACGME) or
- Work with CMS to review incentive payments for creation of new GME positions or distribute through existing GME channels

Strategies to address current programs

4. No additional residents in current programs

Pros

- Could be voluntary
- RC has to approve resident complement increase
- Possibly hire more EPs to care for non-teaching patients

Cons

- Requires increased cost for new workers to provide care
- Could increase PD stress
- Mandate requires process to change requirements through ACGME

Feasibility

High

Impact

Potentially large

Lead Organization

AACEM with CORD

5. Decrease positions in current programs

Pros

- Could be voluntary
- ACGME/RRC could develop more stringent requirements to improve education that would require borderline programs to have fewer residents

Cons

- Likely need additional non-resident care providers
- RRC has 18 resident minimum for critical mass
- Process to change requirements through ACGME

Feasibility

High

Impact

Potentially large

Lead

Organization

CORD/SAEM/

AACEM

6. Encourage programs to adapt 4-year format

Pros

- Could keep same resident complement but decrease graduates, e.g. 24 residents and 8 grads could be 24 residents with 6 grads
- Increase and improve resident learning, electives, competency and independence; bring training up to date

Cons

- New residents would have additional year delay in entering practice, paying loans and starting their careers
- May deter better medical students from selecting longer training
- Controversial among PDs and unlikely to have large impact unless mandated
 - ▶ Likely maximum reduction of 500 graduates per year after fully implemented
- Decreased (50%) funding for CMS DME funding

Feasibility

High

Impact

Likely Moderate

Lead Organization

AACEM/CORD

7. Require all programs to adapt 4-year format

Pros

- Could keep same resident complement but decrease graduates,
- Could increase and improve resident learning, electives, competency and independence; bring training up to date
- CMS DME and IME funding would now cover all 4 years of training

Cons

- 2/3 of new residents would have additional year delay in entering practice, paying loans and starting their careers
- May deter some medical students from selecting longer training
- Controversial among PDs at CORD previously
- Transition period for programs with both formats present, current residents would stay in 3- year format
- New Program requirements needed would take time
- Would require an educational justification

Feasibility

High

Impact

Potentially large
(500/year)

Lead Organization

AACEM/CORD/
ABEM/RRC EM

Low feasibility strategies to affect current programs Considered but not recommended

- Close programs voluntarily. This may occur with poor recruitment or if resident cap is switched to other specialties in the institution, but likely determined by local incentives for programs
- ACGME/RRC shutting down some existing programs. This would need to identify noncompliant programs with more rigorous reviews and more site visits, such as all programs with the lowest 5% of board pass rate
- Work with CMS to not fund new programs in non-teaching or for-profit hospitals. The house of medicine and all other specialties favor increased support for new programs. Discrimination against community hospitals seen as antitrust. All programs already are reviewed for quality (by ACGME)
- *Specialty wide redefinition of Emergency Medicine resulting in expanded training to include more career skills. This would increase the scope of EM practice to allow more job opportunities in all areas of unscheduled care and acute care, procedures, sedation, etc*

Strategies to address non-emergency physicians

8. Better identify APP competencies compared to Emergency Physicians

Pros

- Better define and delineate the difference between physician and non-physician competencies and functions to improve patient care

Cons

- Will cause conflict with NPs and PAs, especially regarding scope of practice. We need to justify based on data, outcomes, emphasis on patient safety

Feasibility

High

Impact

Moderate

Lead Organization

ACEP/AAEM

ACOEP

9. Categorize EDs including metrics for physicians, APPs, supervision, outcomes

Pros

- Voluntary, similar to ACS Trauma Center verification
- Would improve patient expectations of ED capabilities
- Set professional standards for overall better practice without specifically targeting APPs

Cons

- May cause conflict with NPs and PAs, especially regarding scope of practice. We need to justify based on data, outcomes, emphasis on patient safety, (recommended by Macy in 1995)

Feasibility

High

Impact

Moderate

Lead Organization

ACEP/AAEM

ACOEP

Low feasibility strategies affecting non-emergency physicians Considered but not recommended

- Decrease non-EM physician practice in the ED. This is already on a downward trend, disproportionately rural, and may improve as EM graduates seek jobs in more rural settings
- Career counseling for medical students about job prospects to decrease applicant pool. While we should always give the best advice possible for career choice, it will not decrease the number matching into EM.
 - ▶ The experience of other specialties is that students will still fill the match, even scrambling, because it is better than no match at all.
 - ▶ EM is now second most popular specialty in March 2021 NRMP match.

Thank You

Some is not a number
Soon is not a time
Somehow is not a plan
Hope is not a strategy



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Workforce of the Future

Demand Groups

Presented by:

L. Anthony Cirillo, MD

RJ Sontag, MD

March 9, 2021

Demand Group 1

- James Holmes, Jr. MD – SAEM
- Robert Muelleman, MD – ACEP
- Earl Reisdorff, MD – ABEM
- RJ Sontag, MD – EMRA
- Robert Suter, DO – ACOEP

Demand Group 2

- L. Anthony Cirillo, MD - ACEP
- Bradley Chappell, DO – AOBEM
- Deborah Diercks, MD – AACEM
- Maria Moreira, MD – CORD
- Julie Vieth, MD - AAEM

EP “Demand” – Overarching Themes

- ***Raising the Bar – Increasing the Standards for Practice***

- ▶ Aligning Practice to Training / Education
- ▶ Reinforce the Gold Standard of unique and rigorous training of residency-trained Emergency Physicians



- ***Broaden the Umbrella – Expand “EM” Practice***

- ▶ Broadening Skill-defined Practice Opportunities
- ▶ Expanding the practice of EM beyond both inside & outside of traditional “brick & mortar” EDs



- ***Expand the Reach – “No Community Left Behind”***

- ▶ Develop collaborative practice models to support care in all geographies



Raising The Bar

- Assert leadership of EM care and standards of practice for **ALL** patients by residency-trained EPs
 - ▶ ***“Physician Led Teams”*** – No unsupervised practice in ED due to high and unpredictable acuity & volume
 - ▶ Require all ED team members to be specialty trained
 - ▶ Specialty training must have appropriate clinical supervision
 - ▶ Explore ***“ED Certification”*** based upon current models of certification within EM and other specialties
 - ▶ *“Right training for the right patient with the right condition”*



Broaden the Umbrella – Expanding EM Realm

- Ownership of **ALL** patients with acute undifferentiated illness or injury based upon our unique training
 - ▶ Expand EP evaluation and skill set inside and outside the hospital walls
 - ▶ Leverage Telehealth to “bring the EP to the patient”

- ***“Owning More of What We Already Do”***
 - ▶ Observation Medicine
 - ▶ Acute Psychiatric Emergencies
 - ▶ US
 - ▶ PEM
 - ▶ EMS
 - ▶ Especially with CMS ET3 model



Broaden the Umbrella – Expanding EM Realm

• Expanding the “Realm” of EM

- Critical Care
- Sports Medicine
- Proceduralists
- Psychiatric Emergencies
- School Districts
- SNFs / ALFs
- Correctional Care
- Athletic / Sports Groups



• Embrace & Mentor Non-Clinical EP Careers

- Government Service
- Public Health
- Healthcare System Administration
- Elected Office
- Research / Health Policy
- Innovation
- Advocacy
- HIT



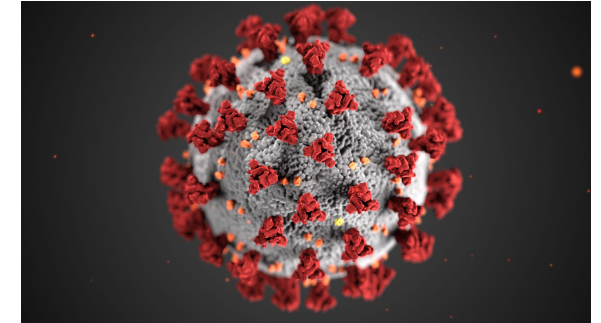
Expand the Reach – Community Focused Practice

- Develop collegial & collaborative models between academic & rural/community sites
 - ▶ Expand residency training in non-urban sites to develop mutual appreciation of different practice challenges
 - ▶ Provide mechanisms for collaborative support of rural EPs to reduce isolation
- Opportunity to enhance care/safety
 - ▶ Reduce “geographic disparities” of care
- Develop “blended” practice models to meet the needs of the EP, the community, and the hospital that are economically viable



Additional Considerations

- Impact of COVID-19 on patterns of care for acute illness and injury
 - ▶ ED volumes – will they return to pre-COVID ?
 - ▶ Attrition – will some EPs retire sooner?
- Career Transition Accommodation
 - ▶ Respectful and graceful transitions in less acute settings?
- Impact of healthcare “disrupters”
 - ▶ CVS/Minute Clinic/Aetna
 - ▶ Walmart Health
 - ▶ Apple Health



Thank You