Data Driven Tools to Facilitate Evidence-based Decision Making Supporting Program Resiliency

AAMC
Tomorrow's Doctors, Tomorrow's Cures

Learn
Serve
Lead

Ann Dohn, MA
DIO, Director of Graduate Medical Education
Stanford Health Care

Nancy Piro, PhD
GME Sr. Program Manager / Education Specialist
Stanford Health Care

Association of
American Medical Colleges

- Ann Dohn, MA
- Nancy Piro, PhD

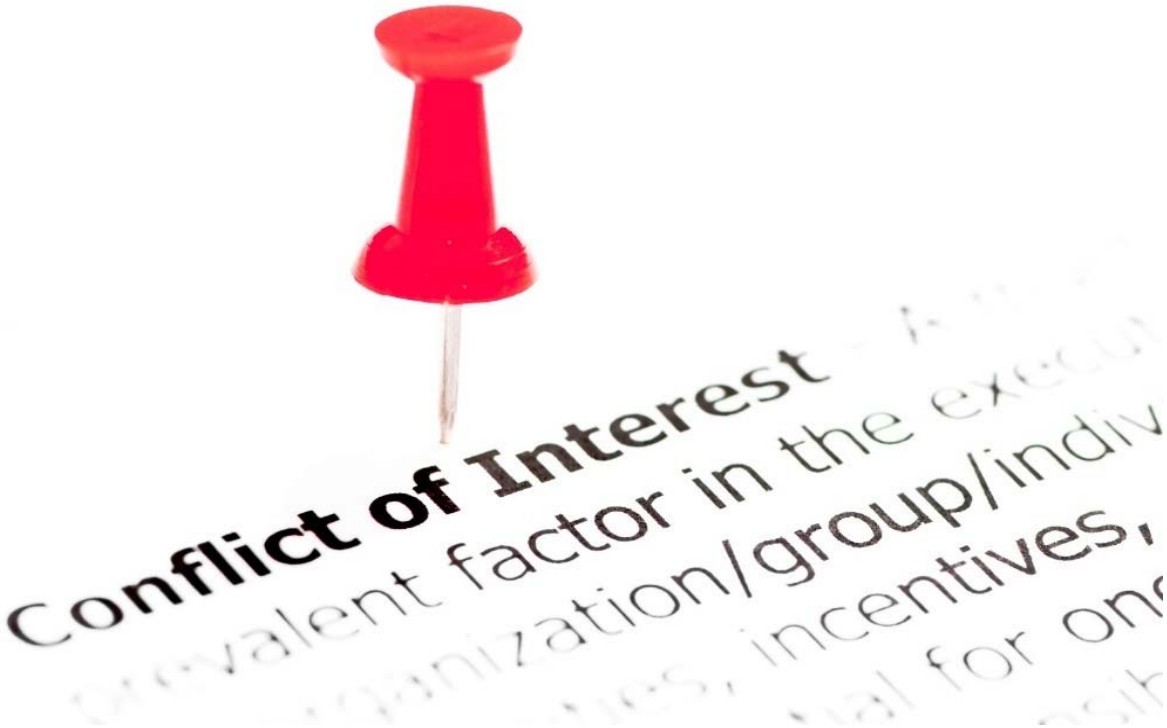
AAMC

Tomorrow's Doctors, Tomorrow's Cures

Learn

Serve

Lead

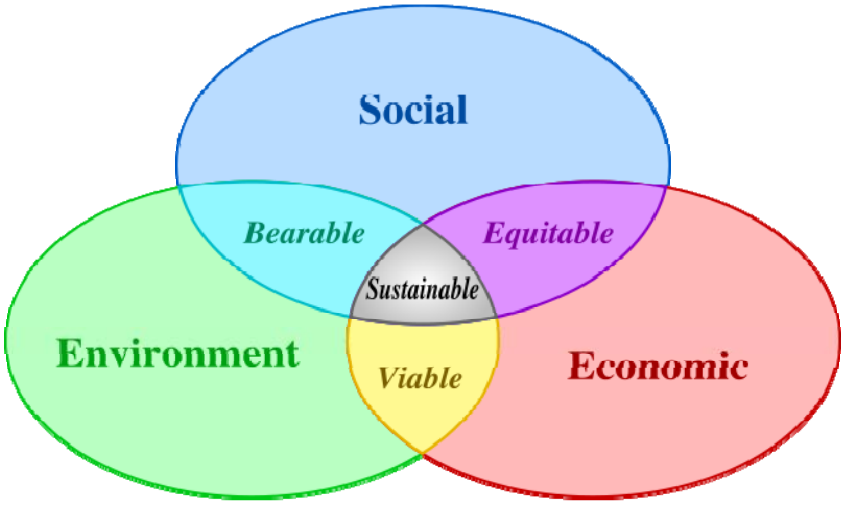


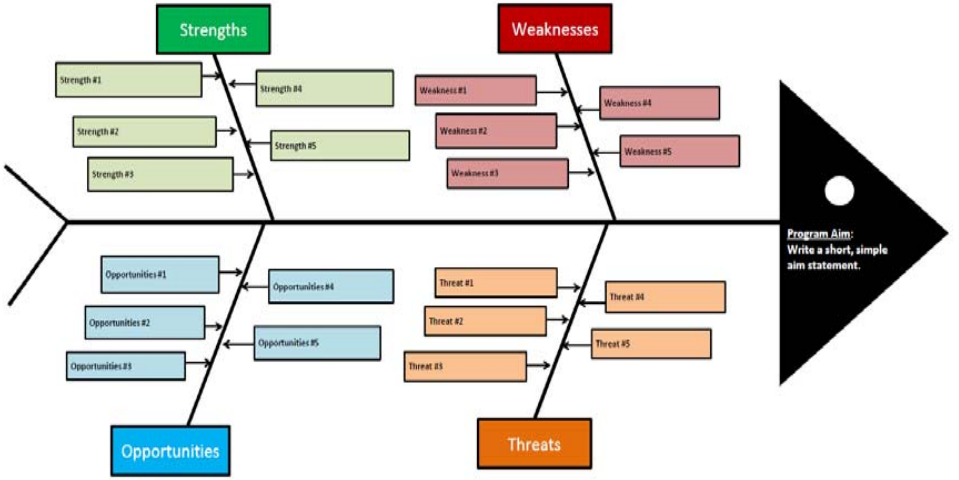
Association of
American Medical Colleges

Resiliency – What do we mean?

According to the British Standard definition:

Organizational Resiliency is defined “the ability of an **organization** to anticipate, prepare for, and respond and adapt to incremental change and sudden disruptions in order to survive and prosper."





Session Focus

- This session focuses on an approach to using data to build and sustain program resiliency.
- The session includes discussion of metrics developed to determine program quality and program resiliency with the understanding that each institution may choose different measurements and analyses.
- There will be interactive discussion of data sources available to DIOs and the C-Suite
- Speakers will discuss lessons learned in throughout the implementation will be presented concomitant with scorecards, the need for special program reviews, alignment with the school/hospital missions, and achieving leadership consensus in decision making.
- Participants will take home an electronic tool kit that they can adapt to their own institutions.

AAMC

AGENDA

- Background and introduction of the program resiliency model
- Presentation of case studies and discussion
- Group work in applying the models and problem solving relevant to their own institutions
- Closure/debrief

AAMC

Session Learning Objectives

Gain insights into how to:

- develop a process that forecasts overall program resiliency
- determine the optimal metrics
- use SWOT analyses and scorecards to anticipate, respond and adapt to change both incremental and sudden disruptions in order to survive and prosper.

AAMC

Historical Perspective at Stanford

Historically, the trajectory of some residency and fellowship programs has been *ad hoc* and driven by "politics" in many circumstances rather than by analyzing the:

- Program quality and resiliency
- Alignment of program and institutional missions
- Physician workforce need

AAMC

Where did we start?

AAMC

Historical Perspective – A3 "What was the Problem"

Sponsor: Department of GME
Participants: GME, DIO, GMEC, C-Suite, Dean, Chairs, DFAs

Expanding and Funding of Additional Residency/Fellowships Positions

Start Date: August 1, 2014
Revised Date: December 2, 2014

Issue/Problem Statement:

Multiple requests for program funding, not based on program quality metrics with variable documentation of programmatic need(s).

Background and Importance:

Stanford sponsors 99 ACGME-accredited programs and 40 non-standard fellowships with 1200 trainees. Since we are over our Medicare Cap, the institution is funding 100% of these requested positions. In the era of healthcare cost consciousness, we need to be cognizant of prudent allocation of scarce resources.

Goals/Dashboard Metrics:

Need to utilize existing GME developed program quality metrics and dashboards.

Problem Analysis:

Decisions were often made without GME input.
Program quality was not consistently used in decision-making.
Power base of the constituents was unequal.

Future State and Counter Measures:

A single Institutional Policy and Process for all programs requesting expansion and funding.
Counter ad hoc "special deals" with committee meeting with all constituents on equal footing.
Data submitted and reviewed before meetings.
Public minutes distributed to GME community.
GMEC reviews, discusses and renders final decision (approved/not approved).

Implementation Plan:

Discussion with C-Suite, Dean, Chairs, DFAs (Department Business Managers), GMEC, Program Directors and Program Coordinators.

Preliminary Process designed, tweaked and retweaked.

New process tested in February, 2015

Follow Up:

Feedback obtained from constituent parties

Sustain Results:

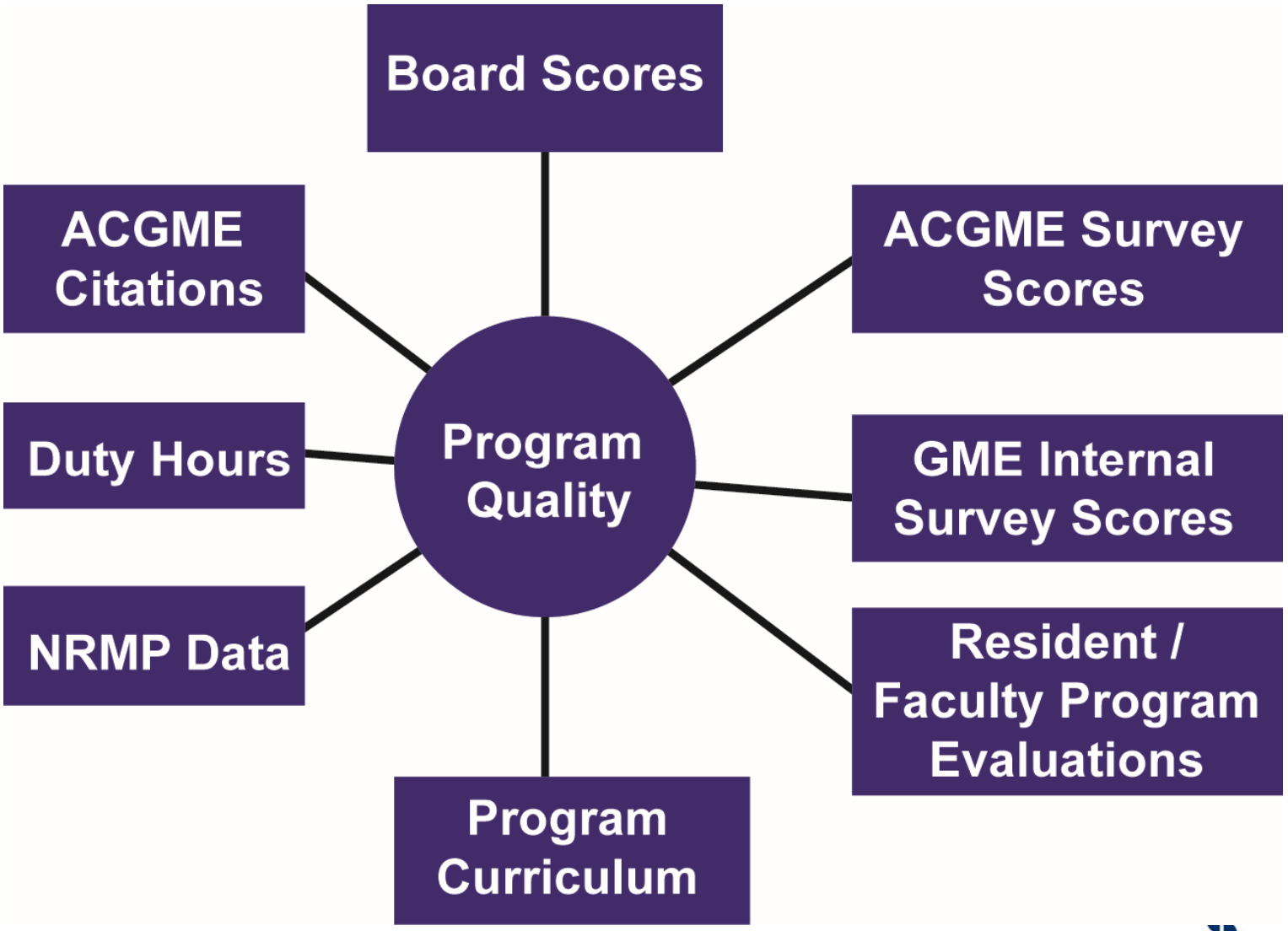
GME and GMEC continuously monitor the process
Continued updating and buy-in from C-Suite

Date Revised: 3/4/2015 Version: # 5

We Found that Multiple Buckets Need to be Considered for Maintaining Program Resiliency

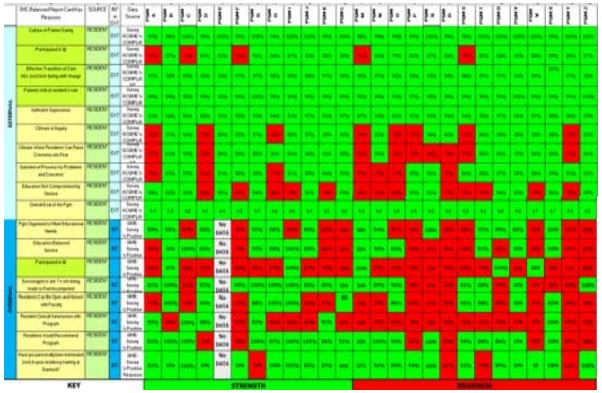
AAMC

Analyzing Program Quality



AAMC

Dashboards…



Data-driven decisions display

Multiple sources

Comparable measures allows for “tiering” of programs

Timely, visual and easy to identify trends

Pre-emptive

Easy for Leadership “C Suite” to read

So why not use a Dashboard for Looking at Program Resiliency?

AAMC

Looking into the Data

Determinants of Program Quality that Drive Resiliency

Resident Performance

Graduate Performance

SWOT Analyses

Evaluation Tools

Curriculum Review

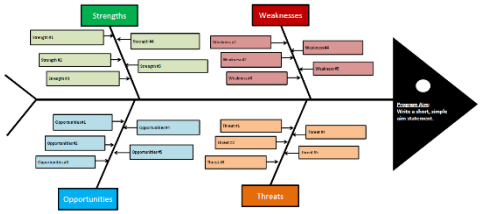
Faculty / Faculty Development

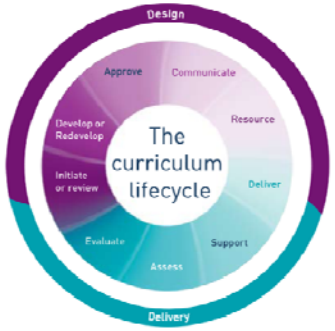
Case numbers / Logs

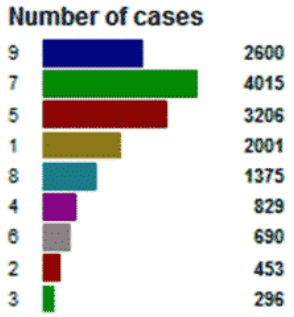
Program Resources

Review of Annual Program Evaluations (APEs) / Self-Studies

Special Reviews







AAMC

Single Program Report Card – Across AYs

5- Year Trend Analysis

SHC Balanced Report Card Key Measures	SOURCE	INT/EXT	Data Source	2012-13	2013-14	2014-15	2015-2016	2016-17
Sufficient Supervision	RESIDENT	EXT	Survey ACGME %-COMPLIANT	95%	96%	98%	93%	Pending
Sufficient Instruction			Survey ACGME %-COMPLIANT	95%	89%	89%	85%	Pending
Faculty/Staff Create Environment of Inquiry			Survey ACGME %-COMPLIANT	98%	91%	87%	89%	Pending
Satisfied with Process for Problems and Concerns			Survey ACGME %-COMPLIANT	93%	89%	87%	93%	Pending
Climate Where Residents Can Raise Concerns Without Fear			Survey ACGME %-COMPLIANT	95%	91%	91%	96%	Pending
Overall Eval of the Program			Survey ACGME %-COMPLIANT	9.0	9.1	9.2	9.0	Pending
Total Number of ACGME Citations (new/resolved)	PROGRAM		ACGME	0	0	0	0	Pending
Board Pass Rates			ABMS	100%	100%	100%	100%	100%
Overall Satisfaction with Program	RESIDENT	INT	GME-Survey	81%	90%	95%	100%	93%
Program Organized to Meet Educational Needs			GME-Survey	96%	86%	100%	100%	97%
Service Over Education			GME-Survey	100%	90%	95%	93%	90%
Encouraged to Ask Questions on a Regular Basis			GME-Survey	100%	100%	100%	93%	97%
Residents Can Be Open and Honest with Faculty			GME-Survey	100%	100%	No Data	93%	97%
Residents Would Recommend Program			GME-Survey	100%	95%	100%	100%	100%
Resident Overall Program Evaluation			Pgm Eval Mean Score/10	9.25	9.65	9.09	9.29	9.37
Faculty Overall Program Evaluation	FACULTY		Pgm Eval Mean Score/10	7.32	7.19	7.81	7.91	8.28
>80 Violations / AY	PROGRAM		Medhub Duty Hr Rpt	0	0	0	0	0
# Unreviewed Duty Hr Periods by PD / AY			Medhub Detailed Rpt	0	0	0	0	0
KEY				STRENGTH		WEAKNESS		

AAMC

Institutional "Report Card" or Dashboard - Data Analysis by Program

	SHC Balanced Report Card Key Measures	SOURCE	INT or EXT	Data Source	PGM A	PGM B	PGM C	PGM D	PGM E	PGM F	PGM G	PGM H	PGM I	PGM J	PGM K	PGM L	PGM M	PGM N	PGM O	PGM P	PGM Q	PGM R	PGM S	PGM T	PGM U	PGM V	PGM W	PGM X	PGM Y	PGM Z
EXTERNAL	Culture of Patient Safety	RESIDENT	EXT	Survey ACGME %-COMPLIA	99%	99%	100%	99%	100%	99%	100%	99%	100%	100%	99%	100%	98%	99%	99%	99%	100%	99%	99%	100%	100%	100%	100%	99%	100%	100%
	Participated in QI	RESIDENT	EXT	Survey ACGME %-COMPLIA	77%	87%	73%	81%	83%	76%	91%	86%	87%	83%	86%	88%	79%	85%	79%	86%	87%	86%	79%	83%	86%	82%	88%	89%	88%	87%
	Effective Transition of Care Info (not) lost during shift change	RESIDENT	EXT	Survey ACGME %-COMPLIA NT	97%	98%	99%	95%	96%	97%	97%	98%	99%	98%	97%	98%	98%	97%	96%	98%	99%	98%	96%	97%	97%	94%	99%	97%	97%	98%
	Patients told of resident's role	RESIDENT	EXT	Survey ACGME %-COMPLIA	99%	99%	98%	99%	98%	99%	100%	99%	99%	99%	99%	99%	90%	99%	99%	97%	99%	99%	99%	99%	99%	100%	99%	99%	99%	100%
	Sufficient Supervision	RESIDENT	EXT	Survey ACGME %-COMPLIA	91%	96%	96%	88%	91%	90%	91%	94%	91%	97%	91%	97%	87%	95%	82%	91%	93%	94%	94%	95%	97%	95%	97%	98%	93%	89%
	Climate of Inquiry	RESIDENT	EXT	Survey ACGME %-COMPLIA	73%	87%	94%	75%	85%	82%	87%	76%	82%	87%	80%	90%	74%	82%	74%	76%	96%	80%	77%	84%	86%	88%	86%	88%	79%	83%
	Climate Where Residents Can Raise Concerns w/o Fear	RESIDENT	EXT	Survey ACGME %-COMPLIA NT	77%	81%	90%	76%	80%	80%	85%	81%	84%	86%	82%	88%	73%	83%	75%	79%	76%	76%	79%	85%	85%	92%	86%	85%	79%	81%
	Satisfied w/ Process for Problems and Concerns	RESIDENT	EXT	Survey ACGME %-COMPLIA	78%	83%	89%	76%	81%	80%	88%	77%	81%	89%	84%	89%	74%	78%	74%	80%	85%	78%	80%	85%	87%	90%	86%	89%	82%	82%
	Education Not Compromised by Service	RESIDENT	EXT	Survey ACGME %-COMPLIA	86%	85%	85%	59%	85%	62%	84%	66%	78%	81%	76%	94%	68%	61%	68%	80%	81%	73%	70%	78%	94%	82%	78%	86%	78%	80%
	Overall Eval of the Pgm	RESIDENT	EXT	Survey ACGME %-COMPLIA	4.4	4.5	4.8	4.4	4.4	4.5	4.7	4.6	4.6	4.4	4.5	4.6	4.4	4.5	4.4	4.4	4.6	4.5	4.5	4.6	4.6	4.8	4.7	4.7	4.4	4.5
INTERNAL	Pgm Organized to Meet Educational Needs	RESIDENT	INT	GME-Survey % Positive	83%	93%	67%	83%	No DATA	70%	92%	88%	75%	80%	64%	50%	86%	96%	71%	41%	100%	10%	65%	92%	89%	83%	56%	100%	67%	44%
	Education Balanced Service	RESIDENT	INT	GME-Survey % Positive	69%	93%	100%	85%	No DATA	70%	92%	88%	100%	80%	64%	33%	82%	90%	86%	45%	67%	20%	65%	81%	78%	83%	44%	100%	67%	67%
	Participated in QI	RESIDENT		GME-Survey % Positive	54%	87%	33%	51%	No DATA	50%	25%	57%	100%	60%	75%	60%	100%	77%	15%	75%	33%	78%	50%	79%	100%	67%	86%	50%	50%	44%
	Encouraged to ask ?'s w/o being made to Feel Incompetent	RESIDENT	INT	GME-Survey % Positive	81%	100%	67%	92%	No DATA	89%	100%	100%	100%	80%	85%	90%	90%	89%	90%	75%	67%	60%	81%	88%	78%	83%	71%	50%	50%	100%
	Residents Can Be Open and Honest with Faculty	RESIDENT	INT	GME-Survey % Positive	77%	100%	67%	94%	No DATA	67%	88%	100%	100%	60%	77%	80	76%	79%	85%	63%	67%	30%	81%	88%	78%	83%	57%	100%	50%	78%
	Resident Overall Satisfaction with Program	RESIDENT	INT	GME-Survey % Positive	83%	74%	100%	88%	No DATA	60%	83%	69%	50%	60%	92%	67%	64%	75%	62%	39%	33%	40%	71%	73%	78%	67%	67%	100%	67%	56%
	Residents Would Recommend Program	RESIDENT	INT	GME-Survey % Positive	81%	100%	100%	73%	No DATA	70%	100%	87%	100%	100%	86%	92%	95%	100%	90%	67%	100%	30%	94%	88%	86%	83%	78%	100%	67%	56%
	Have you personally been mistreated (not) in your residency training at Stanford?	RESIDENT	INT	GME-Survey % Positive Response	81%	93%	100%	89%	No DATA	94%	63%	100%	100%	80%	83%	80%	90%	96%	80%	94%	100%	67%	81%	79%	89%	83%	86	100%	100%	100%

KEY — STRENGTH — WEAKNESS

Determining the need for special program reviews

- More data required
- Resident concerns
- Program too small
- Long interval since last formal review

AAMC

Multiple Buckets Need to be Considered for Maintaining Program Resiliency

AAMC

Bucket # 2 – AIMs, Missions (and Visions)

Other critical considerations:

- When we're looking at Program Resiliency, we needed to look at the overall larger institution.
- GME doesn't function as a silo.

  - Department Strategic Plans
  - Leadership Searches e.g., Chair Searches
  - Clinical growth and outreach
  - Affiliate Relations
  - Closure of neighboring hospitals

Vision
Mission

AAMC

Other Considerations

Vision
Mission

We also need to consider:

- Growth in institutes and departments concomitant with high educational value
- Institutional educational missions and goals
- Program AIMS

Multiple Buckets Need to be Considered for Maintaining Program Resiliency

AAMC

Considering Local, Regional and National Workforce Needs….

AAMC

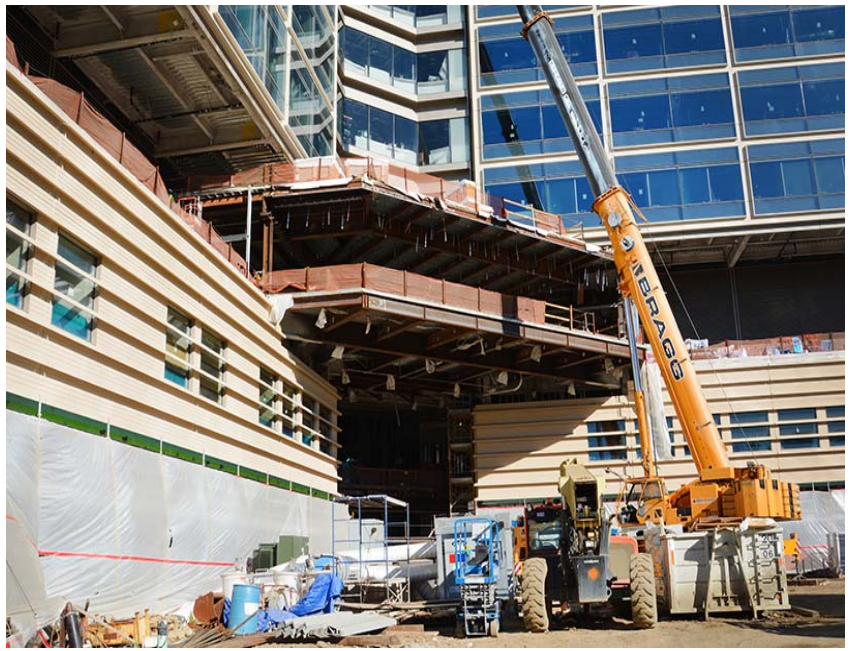
Understanding Some of the Issues Surrounding C-Suite Views on Residency/fellowship training

Service vs Education

Budget Cycle vs Academic Year

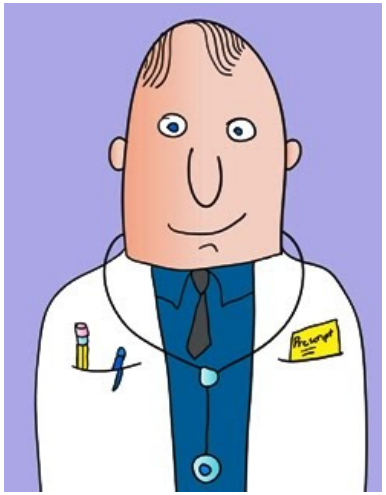
Hospital growth, expansion and strategies not tied to the educational cycle

Cost of trainees / Cost of medical center expansion



Understanding some of the issues surrounding Program Views on Residency/fellowship Resiliency

- Education vs Service
- Competitive Viability
- Regional / National Demand
- Newly Recognized Areas of Training
- Faculty recruitment / retention - I want a fellow to “teach” …”

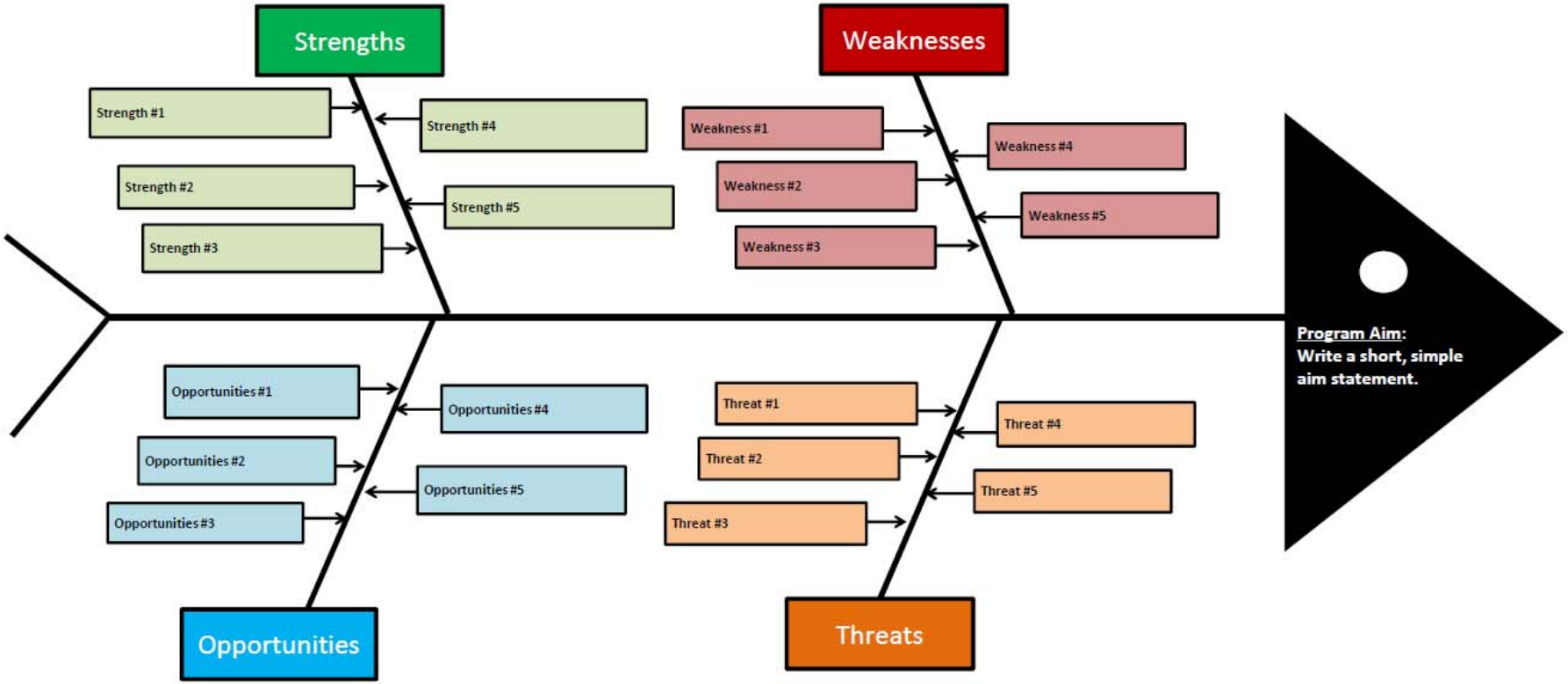


AAMC

Decision Making Process

AAMC

Modified Ishikawa Diagram: Cause-Effect Diagram for Program Evaluation



AAMC

Program Aims – ACGME Perspective

What is the AIM?

- AIM setting is part of the annual program evaluation
- Relevant considerations
  - Who are our residents/fellows?
  - What do we prepare them for?
    - Academic / practice …
    - Leadership and other roles …
  - Who are the patients/populations we care for?
- AIMS are a way to differentiate programs
  - Self-study will ultimately evaluate program effectiveness in meeting these aims
  - Moves beyond improvement solely based on compliance with minimum standards
  - Assessment of relevant initiatives and their outcomes

AAMC

SWOT ANALYSES – Definitions
Strengths and Weaknesses – Internal Factors

Strengths

- Program factors that are likely to have a positive effect on (or be an enabler to) achieving your program's aims are **strengths.**
- Important to acknowledge and celebrate
- What should definitely be continued (important question in an environment of limited resources)

Weaknesses

- Program factors that are likely to have a negative effect on (or be a barrier to) achieving your program's objectives are **weaknesses**.
  - Citations, areas for improvement and other information from ACGME
  - The Annual Program Evaluation and other program/institutional data sources

AAMC

SWOT ANALYSES – Definitions Threats and Opportunities

Factors and contexts external to the program (institutional, local, regional and national) that affect the program

Opportunities - Factors that favor the program, that the program may take advantage of / leverage

- External Factors that are likely to have a positive effect on achieving or exceeding your program's objectives not previously considered are called **opportunities**.
  - What are capabilities for further evolving the program; how can the program capitalize on them?
  - Has there been recent change in the program's context that that creates an opportunity?
  - Are these opportunities ongoing, or is there a narrow window for them? How critical is the timing?

AAMC

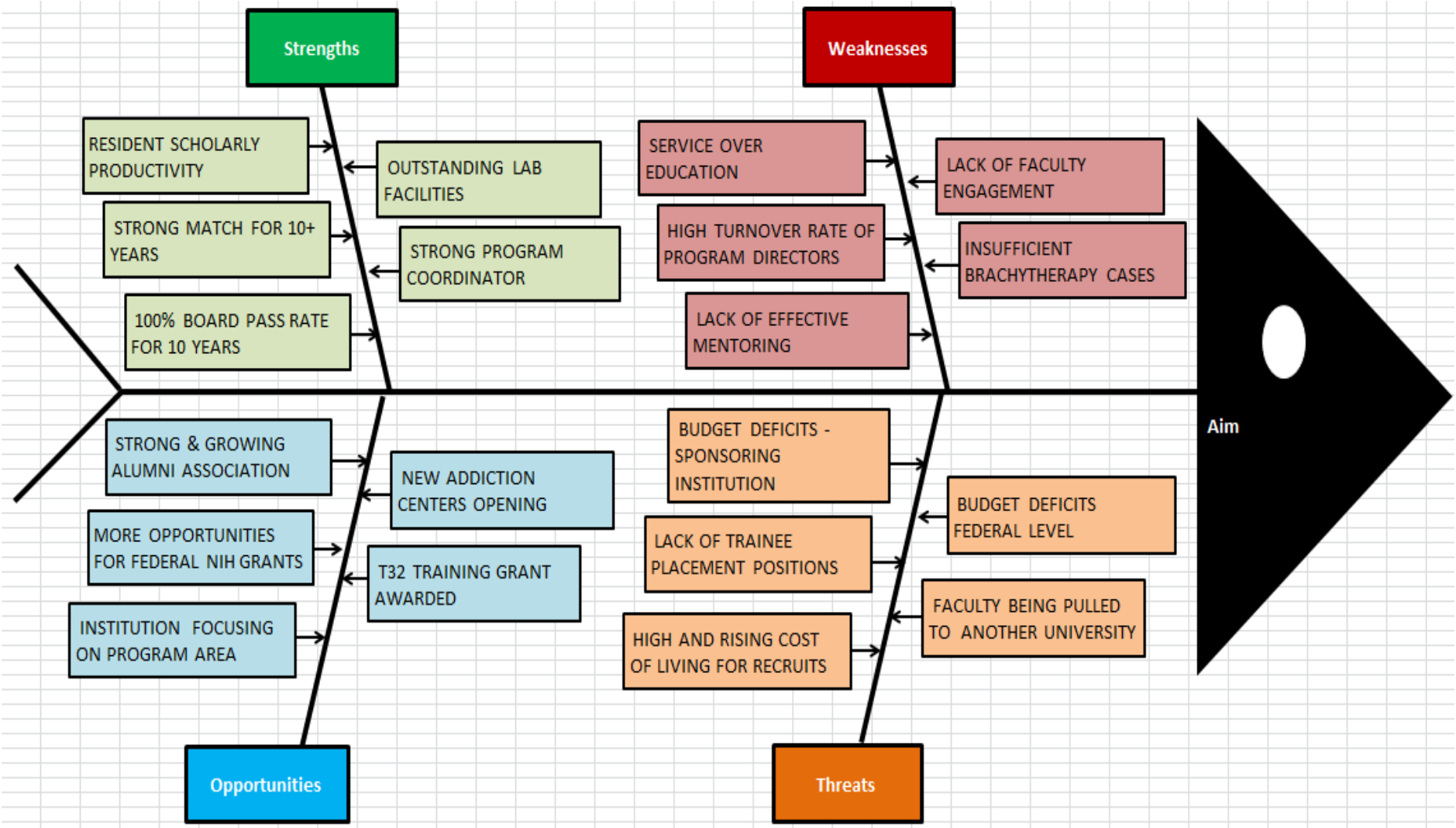
SWOT ANALYSES – Definitions
Threats and Opportunities

Threats - Factors that pose risks.

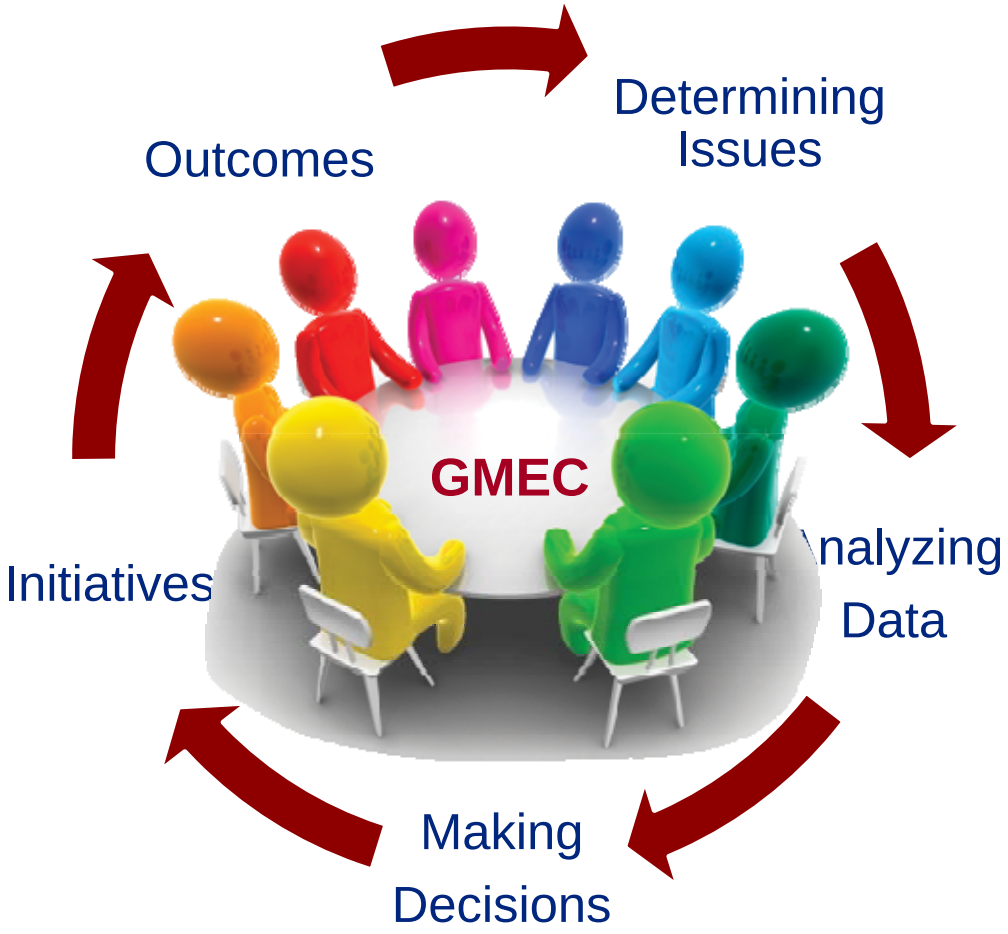
- External Factors and conditions that are likely to have a negative effect on achieving the program's objectives, or making the objective redundant or un-achievable are called **threats.**
  - While the program cannot fully control them, beneficial to have ***plans to mitigate their effect***
  - What external factors may place the program at risk?
  - What are changes in residents' specialty choice, regulation, financing, or other factors that may affect the future success of the program?
  - Are there challenges or unfavorable trends in immediate context that may affect the program? e.g., faculty burdened with heavy clinical load that prevents effective teaching and mentorship

AAMC

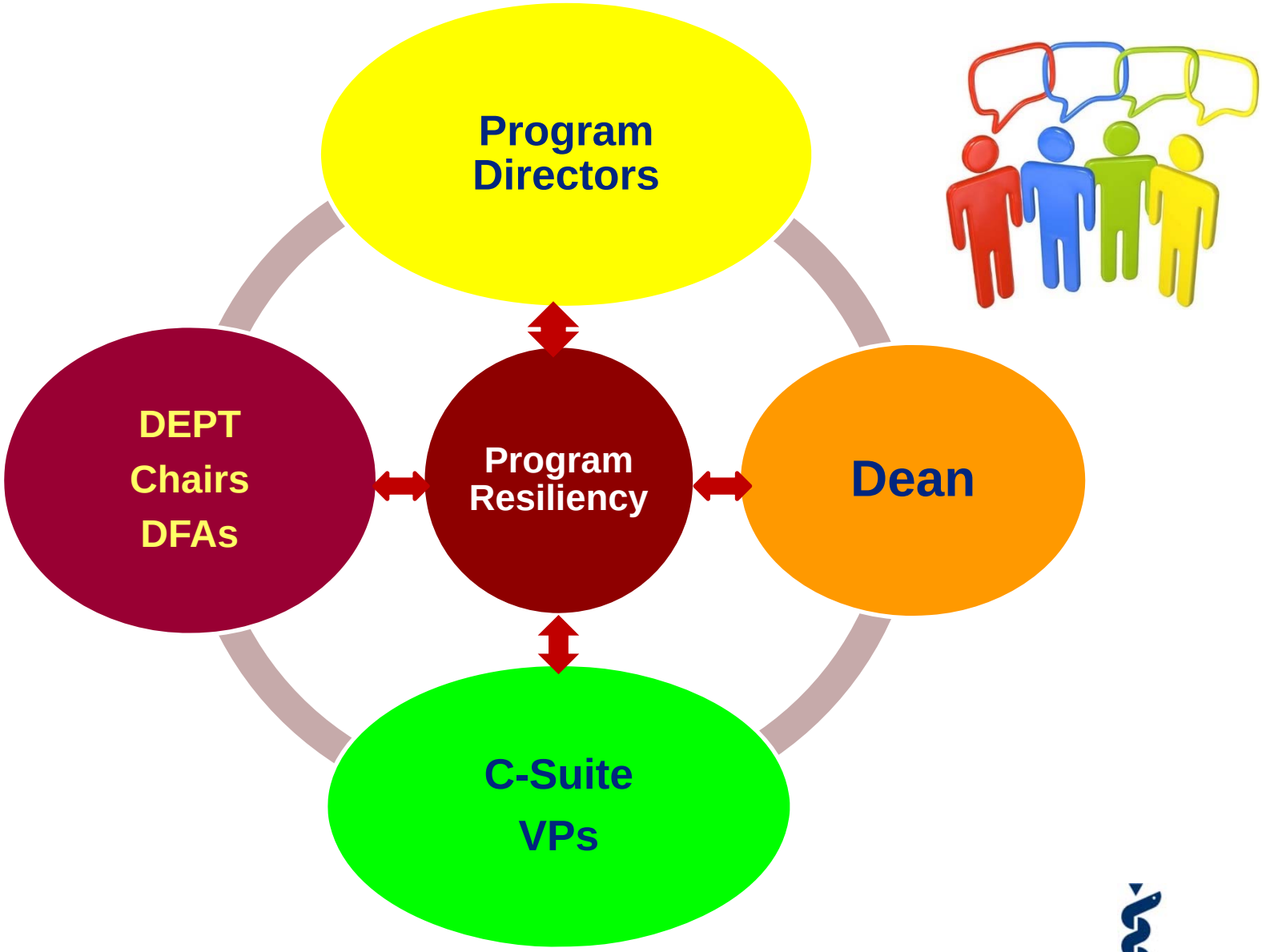
Fishbone – Ishikawa Diagram
SWOT Analysis Completed Example



Setting up the Data Driven Process



GME Must Maintain Open Communications



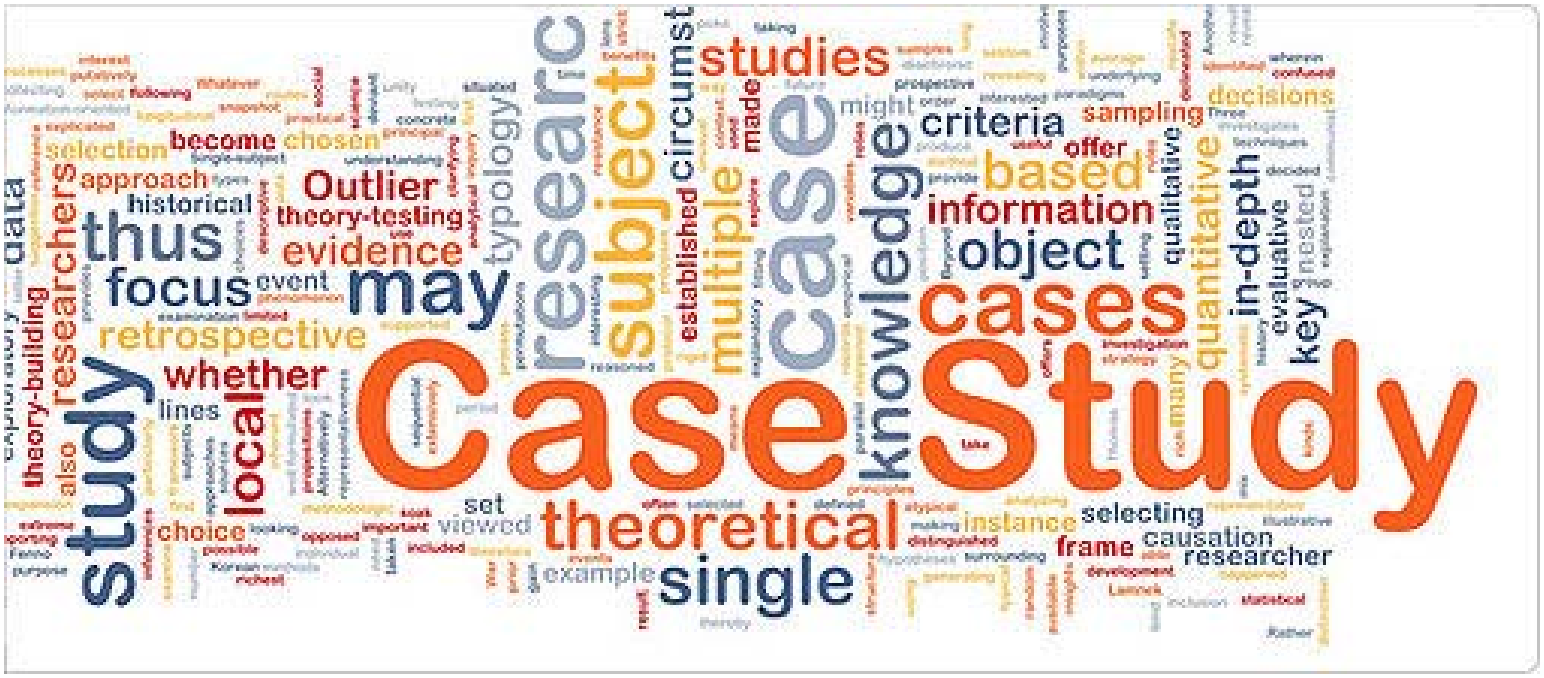
AAMC

Case Study

AAMC

Case Study - Stanford

How the DIO, GME and the C-Suite used SWOT Analyses and Balanced Report Cards to Determine Program Problems and Resolutions and Build Program Resiliency..(or Shut down a program…)



AAMC

Program “X”: Setting the Stage

The Core Residency program was already experiencing difficulties before their last ACGME site visit

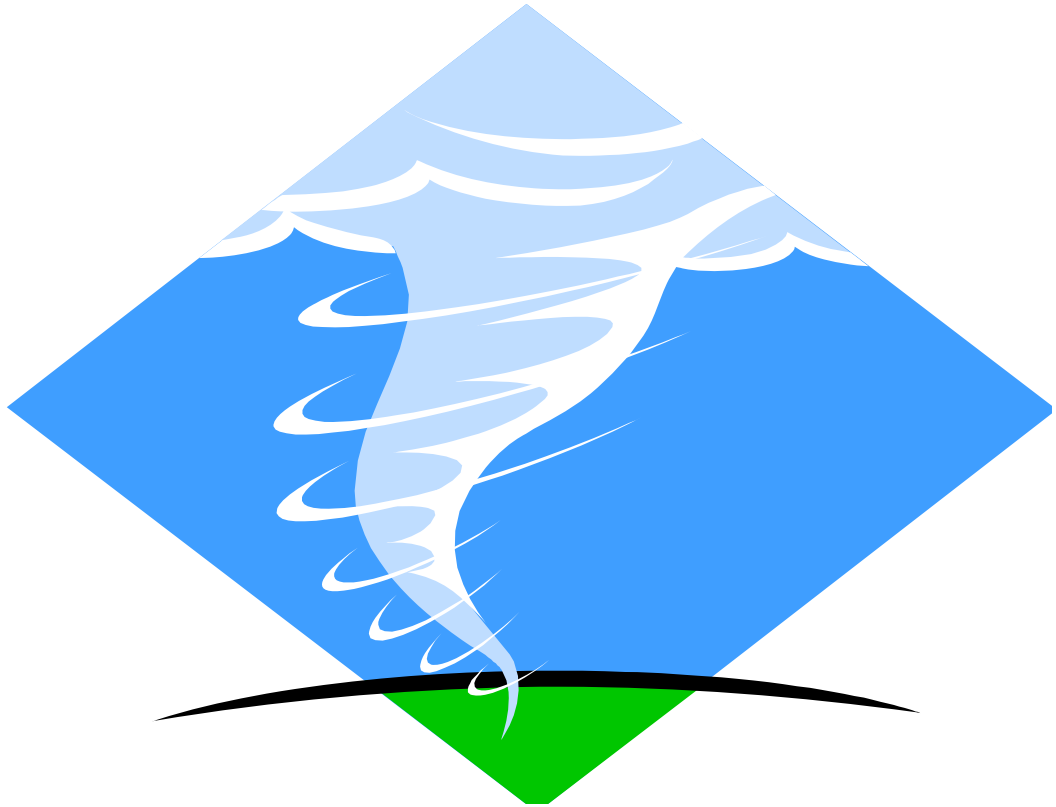
- Tough transition to a new program director when former director abruptly left
- Problems identified on both the ACGME and internal GME house staff surveys

AAMC

Progress?

Program continued to spiral down……

- Lack of C-Suite “buy in” to add resources to build the program up and develop resiliency
- Change in Leadership in the Dean’s Office

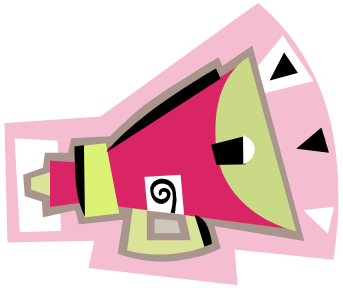


GME Evaluation of the Situation – Program X

- Review of trend analyses of ACGME and Internal GME House Staff surveys
- Review of SWOT Analysis
- Qualitative analysis of every comment on the internal house staff survey and faculty and program evaluations
- DIO used her training in conflict resolution

- Report developed to define the problems
- Shared with C-Suite and New Dean

AAMC



How Did We Use the Data?

Looked at Indicators that are Resident Driven – "Voice of the Resident"

- Is there a discrepancy between the voice of the resident and the other indicators?
  - Would the majority of the residents not choose the program again yet the program receives continued accreditation with commendations?

AAMC

Next we validated the quantitative data

Validated data with resident interviews (individual and group sessions)

(You know you have a problem when the residents call and ask to meet you at Starbucks…)

AAMC

Then we Developed a Preliminary Plan of Attack

Met with program leadership

- Shared concerning data
- Program Director understood he had inherited a "Train Wreck"
- Discussed "their" interpretation of the data
- "Brain-stormed" with program leadership
  - "How can GME help you get back on track?"

AAMC

Setting up an Formal Action Plan

Assigned a GME program manager to work with the program director on the missing “structural elements” in the program.

Met with Resident Groups

DIO monitored progress

Report card allowed GME to implement intervention which was successfully addressing the areas of concern

BUT…..ACGME (not having access to the most recent data) called for an early site visit.

AAMC

Action Items Developed

Data presented to

- Department chair
- Dean
- DIOs from major affiliates
- CEOs
- **RESIDENTS**

AAMC

ACGME Outcomes

ACGME site visit

- Proposed probation which resulted in:
  - HUGE wake-up call for the C-Suite, residents, and four major affiliates
  - Data invaluable in presenting problems

AAMC

Consensus

Decision to “save the program” and put the pieces back together

- C-Suite
- Dean
- Program leadership
- GME

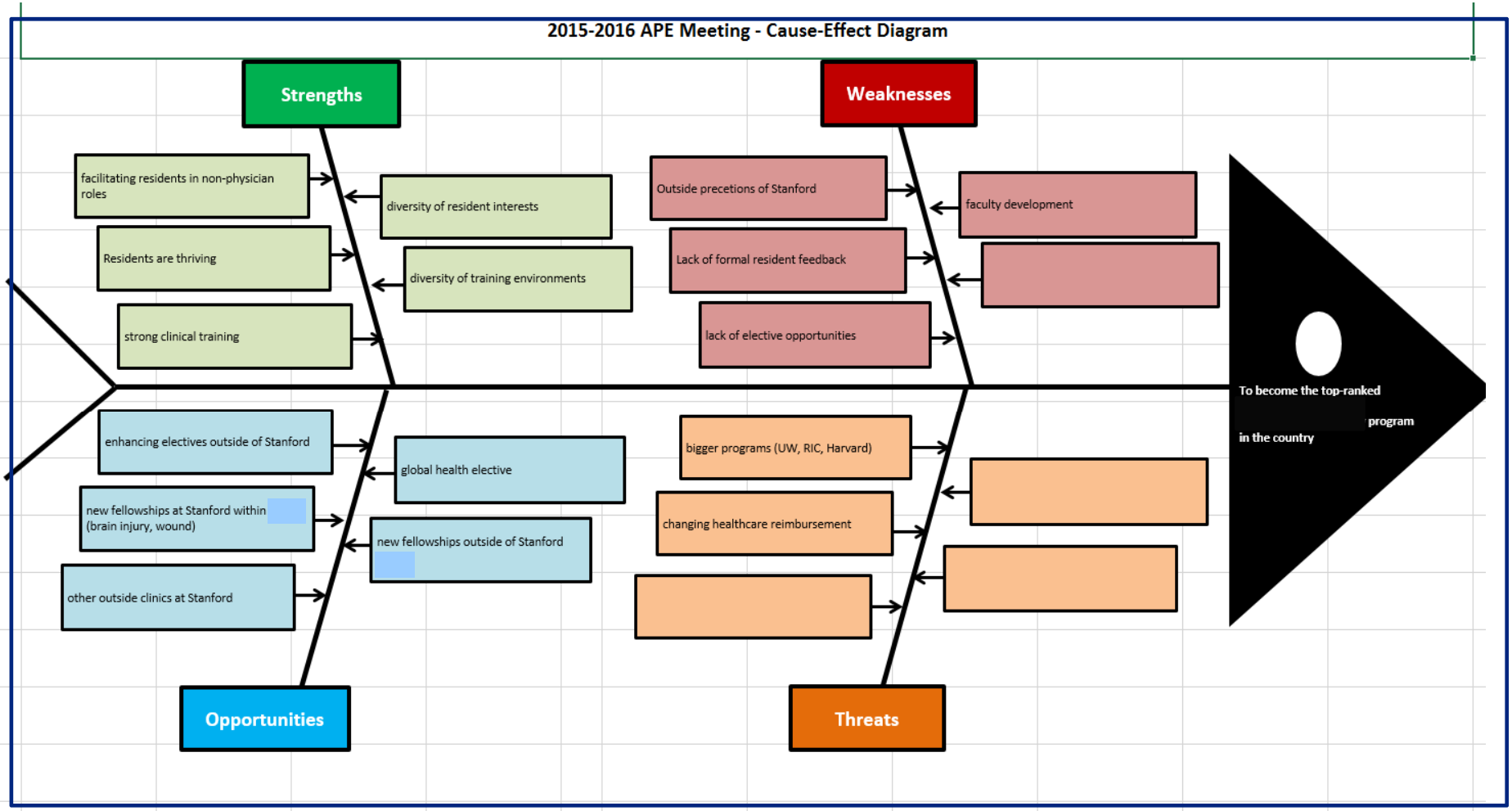
AAMC

Results

- Appealed the proposed probation – probation not given
- Aspirational SWOT Analysis
- Program continues to improve and is showing its resiliency with an outstanding 2017 match paired with an extremely positive national reputation and an “All Green” Report Card so far!

AAMC

Program X Current SWOT Analysis – AIM: To become the top ranked xxx Program in the country!



AAMC

Stanford's Program X: Current Trend Analysis

9 - Year Trend Analysis												
SHC Balanced Report Card Key Measures	SOURCE	INT/EXT	Data Source	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Sufficient Supervision	RESIDENT	EXT	Survey ACGME %-COMPLIANT	100%	95%	88%	100%	100%	95%	95%	95%	Pending
Sufficient Instruction			Survey ACGME %-COMPLIANT	79%	86%	71%	95%	89%	86%	90%	85%	Pending
Faculty/Staff Create Environment of Inquiry			Survey ACGME %-COMPLIANT	90%	85%	77%	75%	89%	90%	90%	80%	Pending
Satisfied with Process for Problems and Concerns			Survey ACGME %-COMPLIANT	No data	43%	83%	95%	95%	81%	95%	95%	Pending
Climate Where Residents Can Raise Concerns Without Fear			Survey ACGME %-COMPLIANT	37%	95%	88	90%	89%	86%	90%	90%	Pending
Overall Eval of the Program			Survey ACGME %-COMPLIANT	No data	No data	100%	90%	100%	93%	94%	92%	Pending
Total Number of ACGME Citations (new/resolved)	PROGRAM		ACGME	10	10	10	10	3	3	3	3	0
Board Pass Rates			ABMS	No data	No data	No data	No data	88%	86%	100%	No data	No data
Overall Satisfaction with Program	RESIDENT	INT	GME-Survey	31%	23%	56%	88%	100%	71%	100%	88%	100%
Program Organized to Meet Educational Needs			GME-Survey	31%	38%	75%	100	86%	86%	80%	100%	100%
Service Over Education			GME-Survey	0%	46%	75%	100	86%	86%	60%	94%	100%
Encouraged to Ask Questions on a Regular Basis			GME-Survey	23%	38%	69%	100	100%	92%	100%	100%	100%
Residents Can Be Open and Honest with Faculty			GME-Survey	23%	42%	50%	100	100%	85%	No data	94%	100%
Residents Would Recommend Program			GME-Survey	31%	54%	81%	86	100%	86%	100%	100%	100%
Resident Overall Program Evaluation			Pgm Eval Mean Score/10	No data	54%	81%	90	70%	7.8	8.9	9.0	9.4
Faculty Overall Program Evaluation	FACULTY		Pgm Eval Mean Score/10	No data	78%	77%	79%	82%	8.3	8.2	8.8	9.3
>80 Violations / AY	PROGRAM		MedHub Duty Hr Rpt	0	0	0	0	0	0	0	0	0
# Unreviewed Duty Hr Periods by PD / AY			MedHub Detailed Rpt	No data	No data	No data	No data	0	0	0	0	0
KEY				STRENGTH				WEAKNESS				

AAMC

What does this tell the DIO?

Report card and trend analyses allow for easy monitoring of multiple factors.

With longer timeframes now with 10 year Self-Studies…imperative to be able to monitor programs frequently and track data for long time periods

Data drives change and builds program resiliency

The C-Suite and Dean were needed to resolve issues-and were “moved” to help when presented with data from SWOT Analyses and report cards

AAMC

In Summary…

- Competition, instability and uncertainty are now constants in our changing healthcare landscape.
- Our institutions face an unprecedented and growing number of potential disruptions to the status quo and the best laid strategic plans.
- To survive and prosper in this new environment of heightened uncertainty and change, we need to focus on organizational and program resilience.
- Resilience applies at all levels: national, regional, institutional and programmatic.
- At the regional levels, specific infrastructure assets come together in highly interdependent ways to serve regional patient needs and local communities.
- At the organizational level, institutions need to ensure their healthcare operations, training priorities and service delivery capabilities remain able to perform their primary operating mandates and prepare for the future.
- Programs need to develop and review SWOT analyses to mitigate potential threats and solidify their program aims.

Gentle Words of Wisdom

"It's all about working together and transparency"

"Let's never forget that the public's desire for transparency has to be balanced by our need for concealment."

Questions ?

AAMC

Contact Information:

Ann Dohn, DIO, Director of GME

- adohn@stanford.edu

Nancy Piro, GME Sr Program Manager/Education Specialist

- npiro@stanford.edu

http://gme.stanford.edu/

AAMC