
Quality Improvement in Osteopathic Medical Schools

Presented by:
Dr. Mary Pat Wohlford-Wessels
Director of Academic Quality & Curricular Affairs
Dr. Diane Hills
Associate Dean Academic Affairs
Dr. David Garloff
Associate Dean Clinical Affairs – Site Development

Des Moines University
College of Osteopathic Medicine

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Overview

- Virtually everyone in higher education is interested in improving the quality of education provided to students. In fact, to a certain degree, ***processes that support quality improvement must be in place to meet regional and specialty accreditation standards.***
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Presentation Rationale

- Improving medical education requires systematic processes that support the review and assessment of the work we do.
 - This presentation will demonstrate how Des Moines University's College of Osteopathic Medicine has developed a comprehensive process that incorporates the work of existing committees, and the ***use of internal and external data*** sources to ***benchmark*** our work against best practice in Osteopathic Medical Education
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Objectives

- At the completion of this educational session participants will be able to:
 - Define Academic Quality
 - Describe how an academic quality improvement can support internal program review and the requirements of accrediting agencies
 - Describe how to utilize internal and external (AACOM, NCHEMS, AAMC) data sources to benchmark practice.
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Definition of Academic Quality

- **Dr. Steve Spangehl states:**
 - **A quality or a high-performance organization as one that *succeeds in satisfying its stakeholders' expectations* by meeting or exceeding their needs.**
 - **Quality becomes a *journey*, a search for better ways to understand the changing needs of an organization's stakeholders and for better ways to meet their needs.**
 - **Since *we can measure the performance* of the various processes an organization uses to gauge and meet its stakeholders' needs, improvements are measurable -- although quality itself is not.**
 - **The size and regularity of those *improvements testify to an organization's quality culture*. Used this way, quality ought always to be an adjective, never a noun.**
 - ***Quality describes an organization that behaves in certain ways* -- it focuses upon processes, bases decisions on facts and measurements, looks at itself as an integrated system designed to achieve its ultimate mission and purposes.**
 - **<http://www.ncacasi.org/>**
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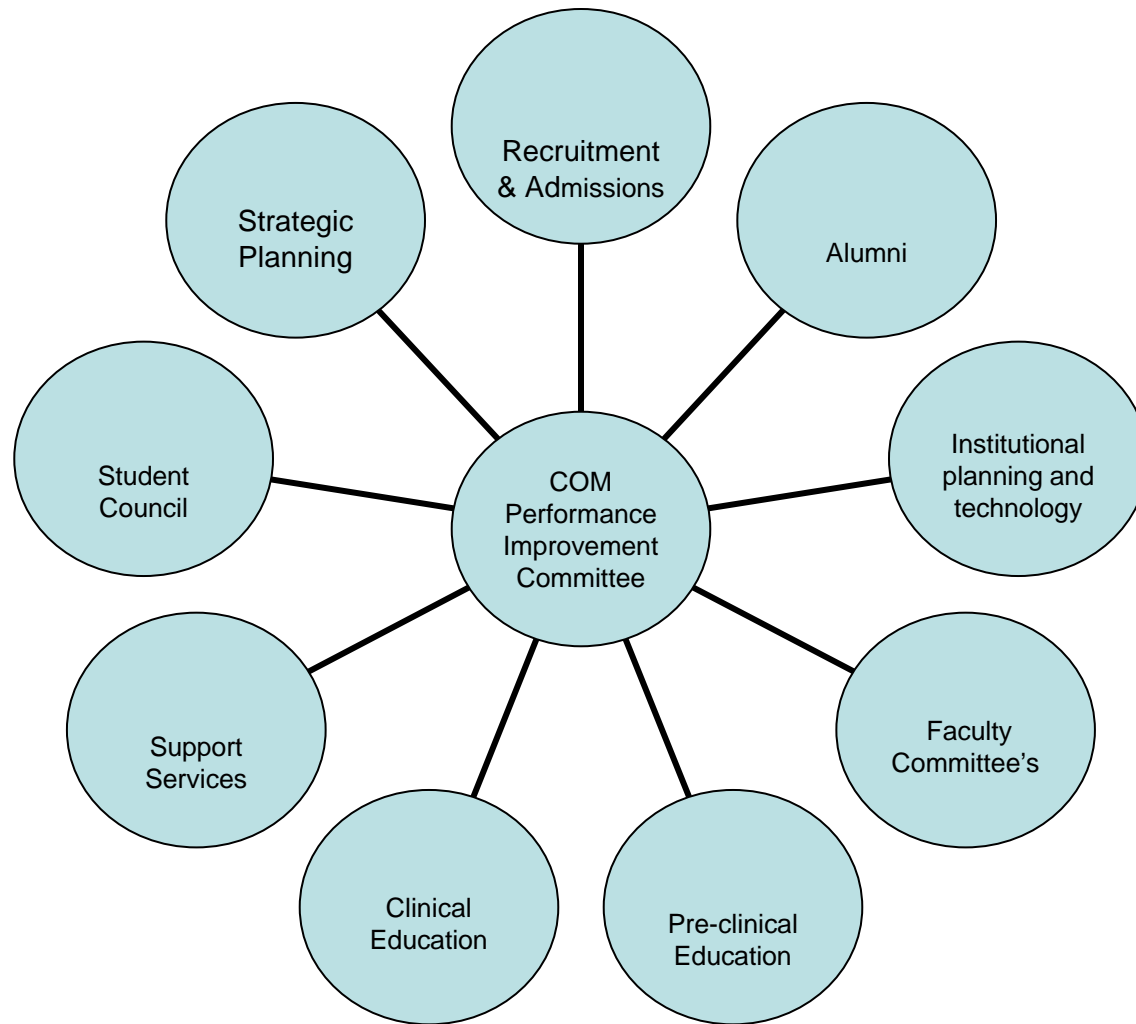
Internal Assessment

- Early in the development of the Quality Initiative at DMU, leadership assessed the internal and external requirements related to quality and outcomes.
 - A matrix was developed and used to guide activities. The objective was **NOT** to add another layer of activities, but rather **to support and enhance existing processes.**
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Quality and Outcomes Matrix

Required components	AOA Standard	NCA Standard	DMU Outcomes Report Requirement	Proposed DMU Program Evaluation Requirement
Mission, goals, objectives	Standard One	Criterion 1 GIR 1,2, 3 & 4	Students outcomes must support goals and objectives	Element I Element II
Governance, administration and Finance	Standard Two	Criterion 2 GIR 5, 6 & 7 GIR 19, 20, 21 GIR 19, 20, 21 (finances)		Element VI Academic Program Costs

DMU-COM Performance Improvement Process Inputs



DMU-COM Process

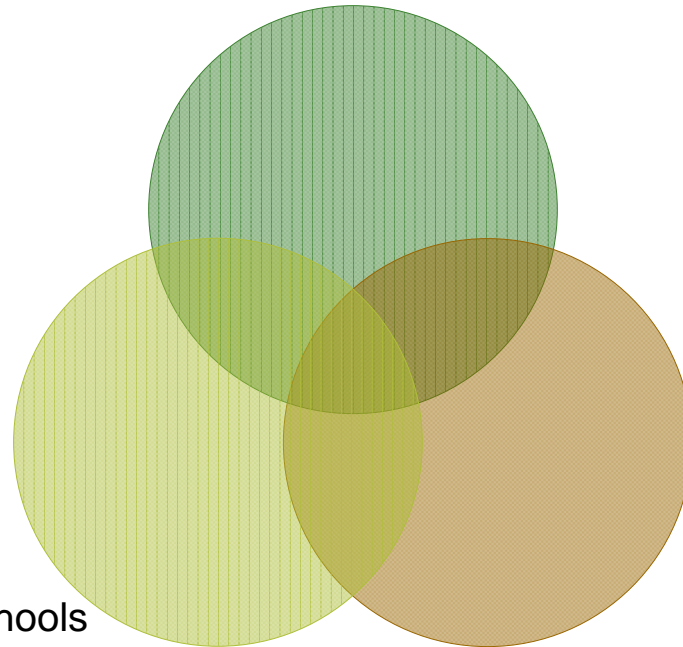
- COM Performance Improvement Committee meets monthly.
 - Chair is a faculty member.
 - The business of the group is directed by a Gantt chart of monthly activities that drive continuous assessment and supports the development of an annual report.
 - The Committee Chair reports to the faculty at large monthly.
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Gantt Chart of Committee Activities

March 2005	Approve the Committee Policy and Procedure Approve committee membership and duties Review and provide input on 2005 report content
April	Review content obtained from the Retreat Review Faculty Development Survey results and make recommendations Review Organizational Profile Results and make recommendations
May	Review report of improvement activities related to the pre-clinical curriculum Review Dual Degree report Assess the use of technology in support of the curriculum
June	Evaluate the research report Evaluate the community service report Evaluate student costs and tuition Evaluate student perceptions of student services
July	Begin reviewing the early draft of the 2005 report Evaluate board score data Evaluate graduate feedback
August	Review enrollment development and admissions data Initial report approved to be sent to the associate deans and department chairs

Data Utilization

Individual Osteopathic Medical School



All Osteopathic Medical Schools

All Medical Schools

Improving Medical Education through Data

- Institutional Data
 - AACOM
 - NBOME
 - Integrated Post secondary Education Data System (IPEDS)
 - AAMC
 - National Center for Higher Education Management Systems (NCHEMS)
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Classified Data in Categories

- Enrollment Development
 - Admissions
 - Costs & Tuition
 - Student Perceptions
 - Pre-Clinical Curriculum
 - Attrition
 - Clinical Curriculum
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Classified Data in Categories

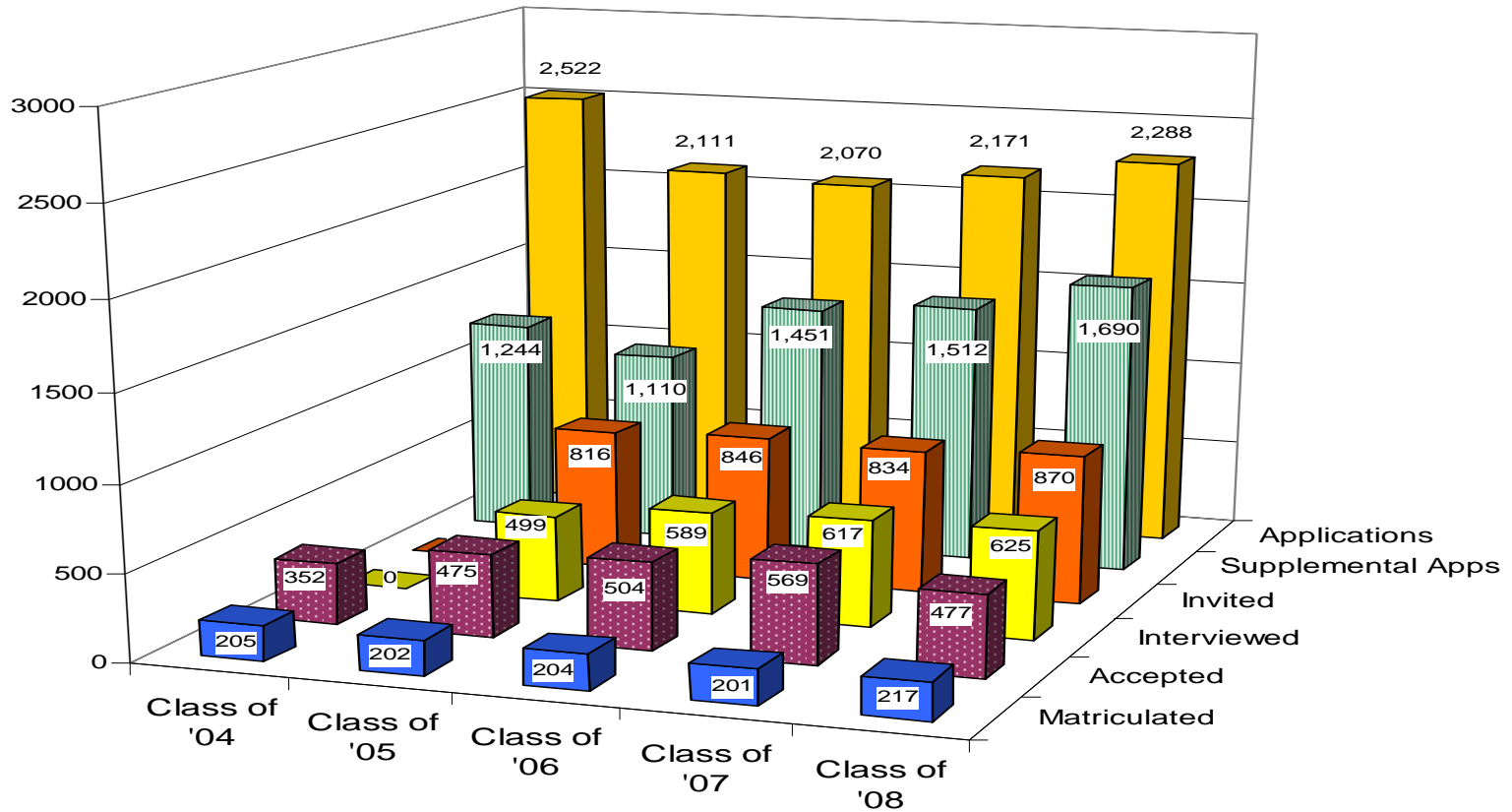
- Board Scores
 - Internship & Residency
 - Research
 - Scholarship
 - Faculty Development
 - Community Service
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Data Use – Students

Class	CUM GPA	Science GPA	Nonscience GPA	MCAT Verbal	MCAT Physical Science	MCAT Biology	MCAT Writing
2007	3.50	3.44	3.52	8.21	8.15	8.72	P
2008	3.54	3.48	3.60	8.31	8.16	8.83	Q

Data Use

COM Applicant/Admission Statistics



Data Use - Tuition

Year	Tuition	Percent Increase
99/00	\$22,950	
00/01	\$23,900	4%
01/02	\$24,900	4%
02/03	\$25,475	2%
03/04	\$26,350	3%
04/05	\$28,000	6%

Data Use – Student Satisfaction

Question	2003	2004	2005	2006	2005/2006
Quality of Campus Life	69%	69%	71%	81%	+10
Quality of Student Centeredness	57%	49%	75%	82%	+ 7
Quality of Academic Life	77%	67%	77%	87%	+10
Quality of Administrative Services	58%	68%	71%	85%	+13
Quality of the Student Service Office	76%	82%	87%	92%	+ 5
Quality of Preclinical Education	82%	68%	70%	84%	+14
Quality of Information About Rotations	40%	30%	30%	88%	+58
Opportunities for Feedback	65%	60%	65%	76%	+11
Effectiveness of Faculty Advisor	40%	41%	35%	52%	+17
Quality of Financial Aid Service	65%	75%	61%	87%	+26
Availability of Computer Technology	60%	66%	76%	72%	- 4
Effectiveness of Student Counseling	74%	74%	83%	90%	+ 7
Quality of Student Health Service	56%	58%	61%	83%	+22

Data Use – Instructional Technology

Number of Blackboard sites for DO students				
DO students	School Year			
	2001 - 2002	2002 - 2003	2003 - 2004	2004 - 2005
DO 08				18
DO 07			19	32
DO 06		8	20	6
DO 05	5	15	5	
DO 04	5	2		
DO 03	2			
Total # of BB sites	12	25	44	56

Data Use – COMLEX I

Difference in DMU-COM Scores and All Peers

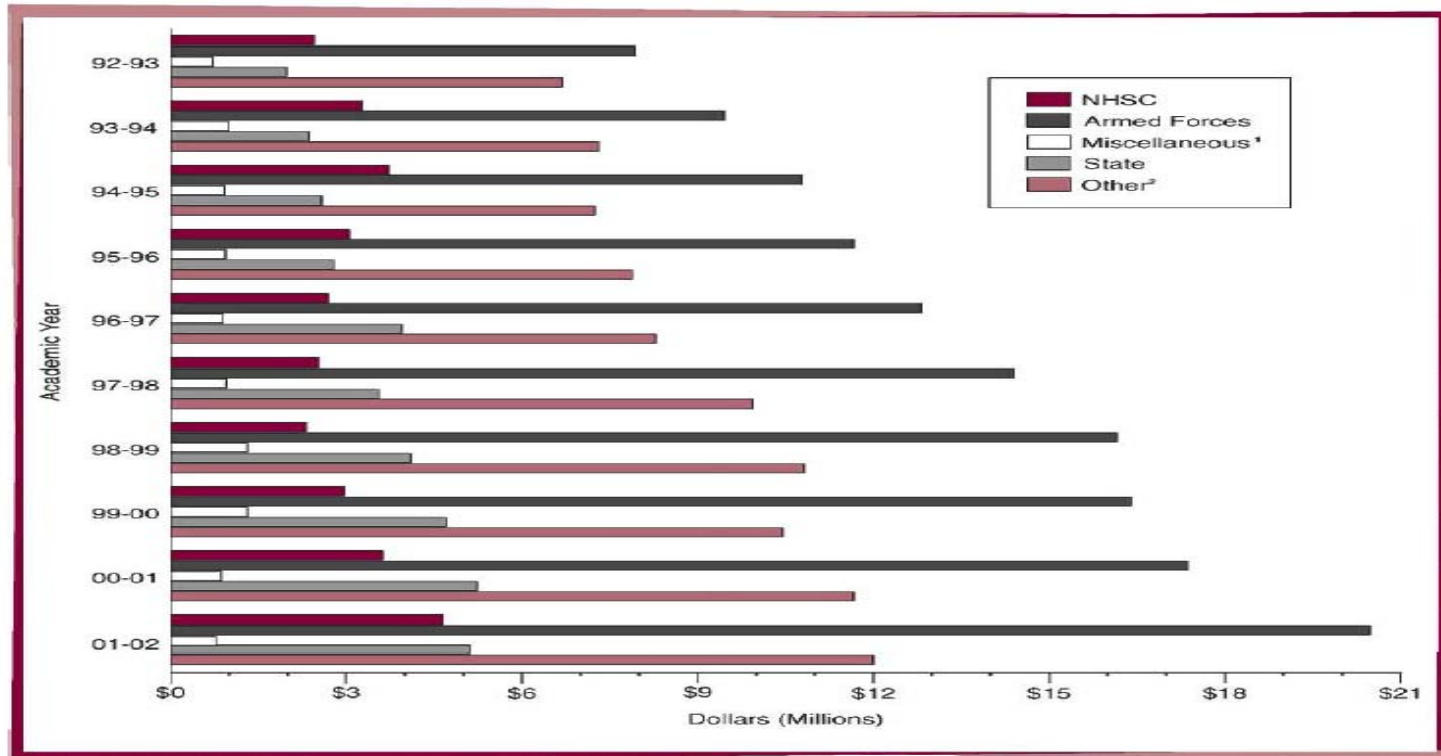
	June 01	June 02	June 03	June 04
Anatomy	-16	+17	-33	+10
Biochemistry	+22	-2	-10	+21
Physiology	+16	+14	+3	+30
Pharmacology	+19	+	-21	+15
Pathology	-1	7	-30	+13
Microbiology	-8	-16	-27	+12

Data Use – COMPLEX I

	National Mean	DMU-COM Mean	Difference (rounded)
Physician Skills			
HP/DP	548.66	596.09	+47
Hist. & Phy.	531.37	541.18	+10
Diag. Tech.	572.53	676.38	+104
Management	519.29	539.30	+20
Science	504.72	521.32	+17
Topic Categories			
Osteo. P&P	518.03	549.03	+31
Gen. Osteo.	506.39	523.08	+17

Data Use

Sources of financial support 1992 – 2002 Reported by AACOM member institutions



¹Miscellaneous scholarships include Exceptional Financial Need, Indian Health Service and osteopathic associations.

²Other scholarships include fellowships, grants, fee waivers, work-study, etc.

Source: AACOM, Annual Osteopathic Medical School Questionnaires, 1993-94 through 2002-03 academic years.

Data Use - Research

	Government	Private Gifts
Institution	Grants & Contracts	Grants & Contracts
A T STILL UNIVERSITY OF HEALTH SCIENCES	\$4,194,080	\$2,922,386
DES MOINES UNIVERSITY-OSTEOPATHIC MEDICAL CENTER	\$1,908,530	\$1,580,025
EDWARD VIA VIRGINIA COLLGE OF OSTEOPATHIC MEDICINE	\$121,277	\$0
LAKE ERIE COLLEGE OF OSTEOPATHIC MEDICINE	\$1,011,447	\$92,512
MIDWESTERN UNIVERSITY	\$1,423,902	\$815,664
MIDWESTERN UNIVERSITY	\$134,597	\$595,306
NEW YORK INSTITUTE OF TECHNOLOGY-OLD WESTBURY	\$1,734,769	\$2,280,070
PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE	\$1,977,569	\$77,002
PIKEVILLE COLLEGE	\$1,345,682	\$4,123,065
TOURO COLLEGE	\$3,701,320	\$1,407,414
UNIVERSITY OF HEALTH SCIENCES-COLLEGE OF OSTEOPATH	\$753,897	\$1,851,958
UNIVERSITY OF NEW ENGLAND	\$3,897,588	\$2,770,343
WEST VIRGINIA SCHOOL OF OSTEOPATHIC MEDICINE	\$268,193	\$0
WESTERN UNIVERSITY OF HEALTH SCIENCES	\$2,006,815	\$1,835,709

Comparison of Results Using Two Different Analysis Techniques - I

TECHNIQUE 1

First, Second, Third Choice Reasons For Attending COMS

N = 101

Reason	First Choice	Second Choice	Third Choice
Faculty/Administration	19	24	16
Student Body	14	23	13
Cost (tuition/living expenses)	1	5	8
Clinical rotations	1	5	5
University facilities	2	4	3
Reputation of program/faculty	39	15	14
Recommendation by friend/family	13	10	13
Geographic location	10	10	14
Received scholarship/grant	2	0	1
Blank Responses	0	5	14

Comparison of Results Using Two Different Analysis Techniques - II

TECHNIQUE 2

The above data was recoded to be able to rank the reason(s) **why** students chose DMU. Responses were recoded to a Likert scale as follows:

- 4 = extremely important (3.50 – 4)
- 3 = very important (2.50 – 3.49)
- 2 = important (1.50 – 2.49)
- 1 = not important (1 – 1.49)

	N	Minimum	Maximum	Mean	Std. Deviation
Reputation of program and faculty	101	1.00	4.00	2.5941	1.29752
Faculty Administration	101	1.00	4.00	2.1980	1.17490
Student Body	101	1.00	4.00	1.9703	1.12655
Recommendation by friend/family	101	1.00	4.00	1.7129	1.08937
Geographic location	101	1.00	4.00	1.6337	1.01708
Cost	101	1.00	4.00	1.2079	.57126
Clinical Rotations	101	1.00	4.00	1.1782	.55491
University Facilities	101	1.00	4.00	1.1683	.58428
Received scholarship or grant	101	1.00	4.00	1.0693	.43029
Valid N (listwise)	101				

Reliability Coefficients N of Cases = 101.0 Alpha = .93

The utilization of the second technique provides additional data and helps target improvement activities. Tracking the gender and ethnicity of respondents will further assist COM in making decisions regarding improvement.

Performance Improvement Report

- Developed annually
 - Distributed to program stakeholders
 - 2004 report - represented years 1-4
 - Admission
 - Pre-clinical
 - Clinical
 - Residency
 - 2005 report – organized using Baldrige Education Criteria
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Baldrige Education Criteria

- Leadership
 - Strategic Planning
 - Student, Stakeholder, Market Focus
 - Measurement, Analysis and Knowledge Management
 - Faculty and Staff Focus
 - Process Management
 - Research (not an official Baldrige Category)
 - Performance Results
 - <http://www.quality.nist.gov/>
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Conclusion

- Performance improvement at DMU has been a journey beginning years ago with student outcomes assessment.
 - The process has evolved into a comprehensive system that includes multiple stakeholders all focused on improving the quality of the organizational culture and ultimately the performance of our graduates.
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Who to Contact

If you have additional questions about the QI program and/or processes at DMU, please contact:

Dr. Mary Pat Wohlford-Wessels

Director, Academic Quality and Curricular Affairs

515 271-1636

Mary.Wohlford-Wessels@dmu.edu
