GEISEL SCHOOL OF MEDICINE
AT DARTMOUTH

MEDICAL EDUCATION COMMITTEE MEETING

TUESDAY, APRIL 16, 2013
4:00 – 5:30 PM
DHMC – AUDITORIUM A

MINUTES

1. **Call to Order** - *Richard Simons, MD*

   The meeting was called to order at 4:00 PM by Dr. Rich Simons with the following members in attendance:

   Voting Members Present: Jonathan (Aaron) Barnes, Ken Burchard, Scottie Eliassen, Aniko Fejes-Toth, Carolyn Koulouris, Victor Laurion, Dean Madden, David Nierenberg, Virginia Reed
   Non-voting Members Present: Laura Cousineau, Ann Davis, Leslie Fall, Diane Grollman, Geoff Noble, Glenda Shoop, Richard Simons, Kalindi Trietley
   Guests: Tim Lahey

2. **Approval of the March meeting minutes**

   A motion was made and seconded to approve the March minutes as written. A vote was taken and the motion passed unanimously.

3. **Announcements** - *Richard Simons, MD*

   Medical Education Grand Rounds – September 20, 2013 at 12:15 in auditorium G. Phyllis A. Guze, MD, FACP, 2013-2014 Immediate Past Chair of the Board of Regents of the American College of Physicians (ACP) will be presenting

   Paul Hadet, MD , will be visiting during the week of September 16th to discuss more about team based learning. This is a follow-up visit to Dr. Hadet's first visit.

4. **Class/Examination Behavior Policies** – *Richard Simons, MD*

   Several complaints from classmates were brought to Dr. Simons' attention regarding first year student behavior, including students coming in late for exams, showing disrespect to lecturers, and poor behavior during exams. Dr. Simons responded by calling a meeting with the students. He found that the class was very receptive to his feedback. He also spoke with Dr. Virginia Lyons and Dr. David Nierenberg who confirmed that Geisel does not currently have a policy in place regarding this; Drs. Lyons and Nierenberg will begin work on this. One of the reasons heard for students showing up late for exams was due to using the time for studying. The new policy could be developed to enforce students showing up on time for exams. Drs. Lyons and Nierenberg will draft a policy to bring back to this committee for action.

5. **Renal Course Objectives** - *Geza Fejes-Toth, DMD*

   Dr. Fejes-Toth presented the following suggested new course objectives (suggestions are listed in red).

2011-2012 Course Objectives are in BLACK, NEW Course Objectives are in RED

Explain the roles of the kidney in maintaining water and electrolyte homeostasis, and the regulation of blood pressure. (1a)
Discuss the typical composition of plasma and urine. (1a)

Describe the components of the renal circulation. (1a)
Explain the rate and distribution of renal blood flow. (1a)
Discuss the role of the CNS and autoregulation in the control of renal blood flow. (1a)
Describe and discuss the mechanism of glomerular filtration and the regulation of its rate. (1a)

Describe the various fluid compartments of the body, the determinants of their sizes and the forces that drive fluid movement between them. (1a)
Explain the unique aspects of the renal circulation and the relationship between renal hemodynamics and the regulation of blood pressure. (1a)

Describe the components of the nephron. (1a)
Describe the functional anatomy of the cortical and juxtamedullary nephrons related to renal water transport. (1a)
Describe renal concentrating and diluting mechanisms, the countercurrent multiplication and countercurrent exchange and the role of urea. (1a)
Describe the water permeability of the different nephron segments, and explain the mechanisms of water transport and its hormonal regulation. (1a)

Explain the role of the kidneys in the regulation of cell volume and the mechanisms that regulate water balance. (1a)

Discuss the main mechanism of renal Na and K transport, and their hormonal regulation.
Discuss the integration of Na and extracellular volume. (1a)

Describe the mechanisms involved in the regulation of sodium balance and the relationship between sodium balance and the long-term regulation of blood pressure. (1a)
Explain the mechanisms that regulate internal and external potassium balance. (1a)

Explain the regulation of acid-base balance and the main transport mechanisms in different nephron segments. (1a)
Discuss disturbances of acid-base balance and their compensation. (1a)

Describe the mechanisms that maintain acid-base balance and discuss the role of the kidney, lung and liver in this process. (1a)
Explain why the regulation of red blood cell production is vested in the kidney. (1a)
Practice and demonstrate critical thinking and problem solving skills. (3e, 3f, 3g)
Practice team skills and demonstrate the ability to work constructively with others. (3g, 4a)

Dr. Fejes-Toth explained that this is more of a compression of details to better represent what is actually being taught and not new objectives. These compressed details were drafted with the students in mind as the end users. Dr. Madden raised concern regarding the compression and the effects it could potentially have when the curriculum is modified possibly making it difficult to be certain that all material is covered in the new curriculum. Dr. Fejes-Toth explained that the detailed objectives were misguiding. The only objectives which are being condensed are listed here; there are others that have not been condensed. ***A motion was made and seconded to approve the suggested changes to the course objectives as listed above. A vote was taken and the motion passed with no objections.***

6. **Addendum to HSP Objectives** –*Virginia Reed, PhD, MPH*

   Postponed until the May meeting

7. **Year 1 Pathology Course Review** – *David Nierenberg, MD & William Hickey, MD*

   The Year 1 Pathology course review was presented by Dr. Nierenberg in Dr. Lyons' absence as she would normally present year I courses. See the attached PowerPoint presentation for full details of Dr. Nierenberg's presentation. In his presentation Dr. Nierenberg covered course objectives, course learning opportunities, assessment and measures of quality.

   Dr. Simons added that LCME site visitors noted that it wasn't clear how instructors were using institutional objectives in driving courses and clerkships (see slides regarding objectives addressing LCME topics for more info).

   Dr. Simons also noted the possible LCME citation regarding dominant use of lecture. The goal is to reduce lecture time, but that doesn't mean it can't be useful in large group sessions. Geisel just needs to get below the dominant use of lecture, which does not have a defined percentage or number, but is thought to be somewhere under 50.

Action Plan presented by Dr. Hickey. **Dr. Hickey will be submitting his written action plan.**

Discussion:

Dr. Ann Davis mentioned the LCME and looking up clinical translation research objectives and asked if those can be increased in this course in any way. Dr. Hickey would like to meet with Dr. Davis to look into this further.

Dr. Dean Madden raised a concern for the need for a more rigorous process for assessing student responses. In the same regard, the question was raised about the NBME format. Increasing the clinical relevance of the questions that are asked is something that is easy to address. Reducing the number of questions that are not NBME formatted is being addressed as well.

Concern that student feedback regarding notes is not provided unless there is a complaint was raised. With the development of a new system for any selection bias that exists now should cease to exist.

A motion to approve the course review was made and seconded. A vote was taken and the motion passed with all in favor. The motion to approve the action plan will be postponed until the May meeting after Dr. Hickey has submitted his action plan in writing.

8. **HSP Course Review** – *Carolyn Koulouris*

The HSP course review was presented by Carolyn Koulouris in Dr. John Dick's absence. Please see the attached slides for full details of Ms. Koulouris's presentation.

The action plan was presented by Dr. Virginia Reed.

Dr. Simons asked Dr. Davis for her thoughts regarding providing feedback to students as a small group facilitator for this course. Dr. Davis indicated that she would not have a problem providing feedback and has, in fact already given verbal feedback. There are instances where students facilitate some of these sessions, which brought about the concern for looking at disentangling the role of facilitator versus clinical liaison. Dr. Simons would like to have feedback provided by faculty next year. Currently students do get written feedback and in many cases, faculty members are voluntary. It was determined that providing written, standardized feedback from facilitators that can be documented is more beneficial than providing verbal feedback as it also helps with goal setting. Dr. Davis mentioned that every group analyzes how the group leader did and the contribution by peers at the end of the course. It would be helpful to balance the conversation and the value of the peers vs. a written statement. Dr. Fall also mentioned that while peer feedback in HSP may be a little uncomfortable the students are at a point where they are being treated like peers; and peer feedback is valuable as it is developmentally appropriate.

Another request for recording lectures was made and Dr. Reed indicated she would look into that, but noted that it does present some challenges as this is not a content course. It provides context for projects, but the value is in the Q&A after lectures.

A motion was made and seconded to accept the course review as presented by Ms. Koulouris. A vote was taken and the motion passed with no objections.

A motion was made and seconded to postpone accepting the action plan until May when Dr. Reed has submitted it in writing. The HSP objectives will be presented then as well. The motion passed with no objections.

9. **Curriculum Redesign Framework – continuation of discussion from March meeting**

Dr. Simons presented a list of questions that came up at the March MEC meeting. Dr. Tim Lahey presented a PowerPoint presentation addressing these major questions.

Dr. Simons presented the following operational plan for new curriculum

Associate Dean for curriculum will oversee phase I.

Courses
-co-directors (basic scientist & clinician)
- course committee (thread reps, organ system reps)
- co-director meetings (quarterly)

It was asked if there is a place on these committees for students, as there is value in having student feedback. As part of the redesign phase, every committee has at least one student member recruited via the student government to enhance diversity. Dr. Simons felt there is no reason why student members can't be part of the operation phase as well.

Clarification was provided on the difference between courses and blocks as this terminology has become confusing. Command, control and regulation is one course which includes, neurology, psychiatry and endocrinology – one course with three topics that will be integrated. With the right people (basic scientist and clinician) paired together this can work well. It was agreed that the basic scientist does need to know content, but need to have appreciation for it. The redesign committees are open to all suggestions and really want to make this work for faculty and students. Dr. Madden suggested that preparing students for the course with cutting edge of basic science will depend on the attitude of the people that are recruited. Dr. Fejes-Toth agreed that course directors are critical in this and asked if there will be new directors. While it has been discussed a little, co-directors for each course and block leaders have not been named yet.

Dr. Leslie Fall talked about clinical immersion and how that will be linked into the first two years of the curriculum. Clinical immersion faculty will identify a core problem in that discipline and link that to what's being taught in clinical longitudinal and map directly to core biomedical. They are asking core biomedical to do the opposite so that they can be mapped to each other. Basic scientists and clinicians will also work with clinical immersion. Dr. Simons stated that On-doctoring will be more robust. Dr. Fall summarized that key diagnostic tests will be fed backward to core biomed, and mapped back to where they will be picked up clinically.

The role of the MEC can't be operational/micro-managing, but the members did ask that the redesign committee report back to the MEC surrounding concerns. This can be done using a newsletter or by periodic updates. Both Dr. Simons and Dr. Lahey are the liaisons and will be reporting back to the MEC. Dr. Simons reminded the committee that they will need to elect a new chair to the MEC in the future but he will continue to work closely with the new chair of this committee.

The committee agreed that discussion surrounding curriculum redesign will continue next month. Dr. Simons asked that any questions be sent to him in advance so that he can bring them to Dr. Lahey and the redesign committee. If the discussion is coming to an end a vote can be scheduled for June's meeting

Dr. Simons thanked the MEC for their input at the last meeting.

The meeting was adjourned at 6 PM.

UPCOMING SCHEDULED MEETINGS:

- **MAY 21, 2013 – DHMC, AUD A**
- **JUNE 18, 2013 – DHMC, AUD A**
- **JULY 16, 2013 – DHMC, AUD A**

Future Agenda Items:

- CPT Course Review *(John Dick, MD)* – May 21, 2013
- HSP Action Plan
- HSP Course Objectives
- Year 1 Pathology Action Plan to be approved

Review of Year 1 Pathology

- Course occurs in the spring term of Year 1
- Course Director – Bill Hickey, M.D.
- Course has 66 curricular hours

Course Objectives – Content Review

There are 36 course objectives that fulfill Geisel competencies as follows:

- 28 address specific knowledge in the preclinical domain, and seem appropriate
- 3 address clinical skills (e.g. using a microscope)
- 1 addresses communication skills
- 4 address components of professionalism

Course Objectives – Ilios

- All knowledge objectives are listed in the Ilios system under 1c ("Identify, explain, and apply useful knowledge of the current core clinical sciences..."), however they could also be mapped to 1a ("Identify, explain, and apply useful knowledge of current core basic sciences..."). The subject of pathology is specifically mentioned under 1a.

Course Objectives – Ilios

- Currently no course objectives are mapped to Geisel competencies 5 (personal improvement) and 6 (health care systems).
- Objective #25 (*Explain the role of the medical examiner in medicine and jurisprudence and when a death of illness must be investigated by the medical examiner.*) and material covered in the Introductory/Lab tour sessions fulfill competency 6 and could be mapped as such.
- Self-assessment activities on "Netpath" fulfill competency 5, thus an objective could be drafted for these.

Course Objectives – Ilios

- Objective #20 is not clear in its current form – likely a typo when entered into Ilios (*"Describe the patholigic features of neoplasms and distinguish"*)
- There are currently no session objectives that match to course objective #28 (*Discuss the pathogenesis of diseases caused by alcohol and cigarette smoking).*
- Objectives were not distributed in several sessions; the session objectives listed in Ilios should be uniformly distributed to students.

Objectives from NBME Step I Brochure

- There is no specific section in the NBME Step I brochure for Pathology, however session objectives cover content in many sections of the brochure including:
  - Biology of the Cells
  - Biology of tissue response to disease
  - Hemopoetic and Lymphoreticular Systems
  - Central and Peripheral Nervous Systems
  - Cardiovascular Systems
  - Immune System
  - Respiratory system

Objectives from National Organizations

- None of the national organizations in Pathology currently publish a list of learning objectives, however the Undergraduate Medical Educators Council (UMEDS) of the Association of Pathology Chairs is developing a list of competencies that will be available this summer.
- Dr. Hickey is a member of this group and is participating in the project.

Objectives addressing LCME topics

- Health of Populations: Course objectives include discussion of resistance associated with bacterial infection, chronic opportunistic infections, environmental toxins and the pathogenesis of diseases caused by alcohol and smoking.
- Basic and Ethical Principles of Clinical and Translational Research: Course objectives include discussion of ethics related to autopsy, and the role of the medical examiner in medicine and jurisprudence.

Objectives addressing LCME topics

- Gender and Cultural Biases in Students Themselves: Not present in the course objectives at this time.
- Instruction in Medical Ethics and Human Values: Course objectives include discussion of ethical behavior and meeting professional responsibilities.

Summary regarding Objectives

- Content of objectives seems appropriate for this course
- There are typos in several objectives that need to be corrected in Ilios.
- Currently no objectives map to competencies 5 and 6, however it appears that the course does have activities that fulfill these.
- The course objectives should be listed in the syllabus in the format used in Ilios, and every objective should have at least one session objective that maps to it.
- Session objectives should be listed at the beginning of each learning activity (e.g. lectures) in the format used in Ilios (i.e. with action verbs such as "describe" or "explain" rather than "learn" or "understand").

Course Learning Opportunities

- Lecture 35 hrs. (53%)
- CPC (Clinical Pathology Correlation) 4 hrs. (6%)
- Laboratory 19 hrs. (29%)
- Small group sessions 4 hrs. (6%)
- Pathology lab tour 2 hrs. (3%)
- Amplifire sessions (web-based module) 2 hrs. (3%)

Assessment

- Written Quizzes (3) – 30%
- Histopathology Slide Quizzes (best 2 of 3) – 20%
- Final Exam – 50%

Currently there are no other means of assessment in the course (e.g. shelf exam). Narrative feedback is not provided for small groups, as students do not have the same facilitator for each session.

Assessment – Written Quizzes

- All quizzes used primarily multiple choice questions (several matching/fill-in-the-blank questions)
- Quiz 1: 10/20 questions used formats that are not recommended by the NBME; 5 questions had clinical case scenarios
- Quiz 2: 3/20 questions used formats that are not recommended by the NBME; 2 questions had clinical case scenarios
- Quiz 3: 1/20 questions used a format that is not recommended by the NBME; 1 question had a clinical case scenario

Assessment – Final Exam

- Final Exam: all questions are in multiple choice format
- 30/100 questions used formats that are not recommended by the NBME
- 10/100 questions used clinical case scenarios
- The final exam does not currently have a practical portion.

Summary regarding Assessment

- Overall, the content of quizzes and exams appears to be very well matched to session objectives, however occasionally the distribution of the content assessed was not balanced.
- The majority of questions focused on recall, rather than applying information to a new situation.
- Some multiple choice questions use formats that aren't recommended by the NBME:
  - "all of the following EXCEPT"
  - "which of the following is NOT true"
  - "all of the above" as a choice
  - true/false questions disguised as MCQ

Summary regarding Assessment

- The ability to identify structures in histopathology images is not assessed on the final exam.
- Objectives related to professionalism (e.g. "To behave respectfully and responsibly towards colleagues and faculty in small group exercises and labs.") are not formally assessed.

Measures of Quality – AAMC GQ

"Indicate how well you think that instruction in Pathology prepared you for clinical clerkships and electives." [1=poor; 2=fair; 3=good; 4=excellent]

	Geisel mean 2008	Geisel mean 2009	Geisel mean 2010	Geisel mean 2011	Geisel mean 2012	All schools mean 2012
BASIC SCIENCES						
Behavioral Science	3.1	3.3	3.2	3.3	3.3	3.1
Biochemistry	2.7	2.8	2.7	2.5	2.6	2.6
Biostatistics/Epidemiology	2.7	2.8	2.9	3.2	3.2	2.8
Genetics	2.9	2.8	2.9	2.8	2.8	2.8
Gross anatomy/Embryology	3.4	3.5	3.6	3.5	3.6	3.4
Histology	2.8	3.0	2.8	2.9	3.1	2.9
Immunology	2.8	3.0	2.9	3.0	3.1	3.1
Microbiology	3.1	3.4	3.1	3.2	3.3	3.1
Neuroscience	3.2	3.2	3.2	3.0	3.0	3.2
On Doctoring	3.3	3.3	3.5	3.4	3.5	3.4
Pathology	3.1	3.1	3.2	3.1	3.4	3.3
Pathophysiology of Disease	3.6	3.7	3.5	3.5	3.5	3.5
Pharmacology	3.1	3.5	3.4	3.1	3.1	3.0
Physiology	3.5	3.5	3.6	3.6	3.5	3.4

Measures of Quality – Step I

	2009	2010	2011	2012		Means 09-12
Pass rate/Geisel	98.5%	100.0%	98.8%	100%		99.3%
Pass rate/National	92.6%	91.3%	93.7%	95%		93.2%
TRADITIONAL CORE DISCIPLINES						
Biochemistry	0.50	0.30	0.40	0.30		0.38
Biostatistics/Epidemiology	0.65	0.90	0.73	0.43		0.68
Genetics	0.40	0.30	0.48	0.28		0.37
Gross anatomy/Embryology	0.50	0.35	0.53	0.33		0.43
Histology/Cell biology	0.53	0.30	0.40	0.37		0.40
Microbiology/Immunology	0.63	0.42	0.41	0.31		0.44
Pathology	0.55	0.35	0.42	0.26		0.40
Pharmacology	0.63	0.15	0.39	0.22		0.35
Physiology	0.67	0.32	0.47	0.38		0.46

Measures of Quality – Course Reviews

scale [1=poor; 2=fair; 3=good; 4=very good; 5=excellent]
35% participation on survey

- Overall satisfaction of course – 3.00
- Overall usefulness of lectures – 3.28
- Overall usefulness of small groups – 2.86
- Overall usefulness of labs – 2.52
- Overall usefulness of course materials – 1.97

Measures of Quality – Course Reviews

- Strengths: passionate and approachable instructors; clear organization of course; great introduction to the topic; interesting material; lab tour; CPC's.

sample comments:

"I thought that the course as a whole was quite well-organized. The instructors would get back with you quickly if you emailed them questions."

"All of the faculty, especially the course director, are very professional with regards to teaching and making our time in class worthwhile."

Measures of Quality – Course Reviews

- Suggestions for Improvement: provide more comprehensive notes OR suggest a more basic text; improve correlation between what was emphasized in class and what is assessed

sample comments:

"Please consider providing notes rather than outlines for each lecture. Lack of access to these notes made it both difficult and time consuming to try to learn the appropriate material, since the textbook provided far too much information, while the lectures provided a limited fraction."

"More coordination is needed between lecturers and question-writer(s). Some of the questions on the final covered material that was not emphasized in lecture."

Summary regarding Measures of Quality

- Measures of quality place the course in the "good" range, indicating that they are doing some things well, but there are areas that need improvement.
- Students appreciate the approachability and receptiveness of the faculty, and for the most part the lectures are done well.
- Faculty development is needed for small group facilitators as quality is inconsistent (some facilitate a useful interactive session, while others just repeated lecture material or talked "off topic")

Summary regarding Measures of Quality

- Some students felt that expectations regarding what they needed to learn, and what would be assessed, were not clear (material that was covered in lectures vs. material in the text).
- Course and session objectives written for Ilios should be used to structure each learning activity, convey expectations to students, and guide what is assessed in the course.

HSP Review

JOHN DICK III
SARAH JOHANSEN
CAROLYN KOULOURIS
MEDICAL EDUCATION COMMITTEE, YEARS 3-4 SUBCOMITTEE

HSP Review

- The overarching aim of HSP is to provoke study, reflection, and honest conversation about difficult or new issues that graduating medical students will face in the next stage of their careers. **How** this is accomplished varies from year to year.
- Since 2010, HSP has been conceptualized as a clerkship in health care delivery science and has focused on the 10 competencies clustered under systems-based practice and the science of health care delivery.

Course Objectives

- 2013 Learning Objectives
- By the end of the course, students will be able to:

1. Discuss the role of the physician, the patient, and the family in health care and addressing health care challenges;
2. Participate in the QI project of an ongoing team within the Dartmouth community;
3. Explain and apply QI principles and tools;
4. Recognize, identify, and collect outcomes data and other data as appropriate to the QI project;
5. Demonstrate team skills by participating in and contributing to team discussions and to the small group QI project and presentation;
6. Practice self-reflection and peer review group process in teams.

1a. Course Learning Objectives

- Habit of Inquiry (5): 5a, b, c, d, e
  - While participating in QI project:
    - Search for recent medical information; Read critically; eval clinical care process
  - Explain project and apply tools
    - Explain and apply concepts of QI
    - Develop habit of lifelong learning
- Science of Health Care Delivery (6): b,c,d,e,f,g,h,i,j
  - Understand roles of interprofessional teams
  - Cost/quality; describe larger environment, variations, utilize results to improve patient care

1a. Learning Objectives (John)

- Questions
  - How are they presented to students?
  - General suggestions:
    - Use measurable outcomes format for all of them
      - Consider replacing "Discuss" and "Practice" with different terms
      - "Discuss the role of the MD in health care" changed to "Recognize" or "Define"
      - "Practice self-reflection and peer review group process" changed to "Use"
    - Have session learning objectives at the front of each session
    - Make sure that each course objective is assessed in some way

1c. Course Learning Objectives in ILIOS

- ILIOS learning objectives (John)
  - There are 8 (in Ilios) – 6 (revision) course learning objectives
  - Medical Knowledge: (1): 1b and 1f
    - Explain outcomes data; Explain impact of social, economic, cultural factors on upon health of individual, health of groups
  - None from Provide Patient and Family Centered Care (2)
  - Communication Skill: (3): 3e, 3f
    - Communicate with MD colleagues; Communicate with multi-disciplinary teams (self refection and peer review group process) – are these multidisciplinary teams?
  - Professionalism: (4): 4a, b, d, f, g, h, j, l
    - Team discussions – behave respectfully towards colleagues, participating in teams, integrity, desire to learn/improve, respect pt confidentiality, optimize own ed. Plan, reflection, peer review

1d. Learning Objectives from USMLE Step 2(General Principles)- John

- Applied Biostatistics and Clinical Epidemiology
- Understanding statistical concepts of measurement in medical practice
- Interpretation of the medical literature
- Systems-Based Practice and Patient Safety
- Systems-based practice and quality improvement (microsystems and teams including hand-offs, standardization of processes, reducing deviance)
- Patient safety, medical errors and near misses (sentinel events, problem identification, root cause analysis)

1e. Learning objectives from national organization (John)

- Unclear what organizations would cover this best
  - Health care delivery sciences – UME curriculum?

1f. Learning objectives addressing additional specific LCME topics (John)

- **Health of populations: yes – sustainable health care systems, ACO, etc**
- **Basic and ethical principles of clinical and translational research: Yes!**
- **Gender and cultural biases in students themselves:**
  - Not present in course objectives at this time
- **Instruction in medical ethics and human values**
  - **Session 5 ?** – HCDS -Explain the role of health care delivery science in solving the world

2. Course Learning Opportunities 2012-13

- Total hours: 42
  - Traditional lectures = 14 h (33% of total hours)
  - Student presentations = 6 hours
  - Small groups = 20 hours
  - Interactive large group/interdisciplinary = 2 hours
  - Lab (simulation) = 0
  - PBL groups = 0
  - Direct patient contact = 0
  - Panel discussion = 0

Learning Assessments for Students

- Evaluation
  - Narrative pass/fail final assessed by course director
  - Small group goal setting/feedback suggested
  - Group presentations not formally assessed

Feedback about course via course evaluation form

- Effectiveness of small group?
- Please list the 5 most useful concepts, skills, models, tools, or other such learning from the course.
- Were there any aspects of the course you feel were particularly well done?
- Were there any aspects of the course you feel could have been done better?
- Do you have other comments or suggestions that would be helpful in planning the next course course?

Qualitative Data

	quality your work in the course (poor, fair, good, very good, excellent)	course org & planning (poor, fair, good, very good, excellent)	effectiveness of faciitator-student interaction (poor, fair, good, very good, excellent)	course difficulty (not at all difficult, somewhat, moderately, very, extremely)	course workload (minimal, slight, moderate, great, very great)	quality your learning in the course (poor, fair, good, very good, excellent	how effective at meeting course goals (not at all, somewhat, moderately, very, extremely)
2010	3.68	3.92	4.00	1.84	2.53	3.80	4.20
2011	3.96	3.70	3.78	2.28	3.07	3.79	3.67
2012	3.93	3.88	3.72	2.07	2.91	3.69	3.77

Effectiveness of small group?

- Many students wrote that their small groups were great.
- Some students noted that their facilitators had an agenda not entirely fitting with the group's agenda. ? training
- Numerically students rated the student-facilitator interactions
  - Good-very good range: 3.72-4/5
- How are these small groups selected?
  - "try to make the small groups as practical as possible..."
- Specific feedback to Dr. Suresh.

Were there any aspects of the course you feel were particularly well done?

- Lectures by Dr. Kim, Dr. Fisher, Dr. Trimble
- Steps to QI projects – with Dr. Kerrigan
- Lots of positive comments about small group
  - "I loved the small group. I learned a lot about putting the lessons of large group into action, about working in a group this size and from listening to the thoughts of my peers."

Were there any aspects of the course you feel could have been done better?

- More direction in early small group?
  - Initially, it was frustrating to not know where to start--- however, at the end, we all came together, decided on what to do and did it successfully. It was a fun, enriching and rewarding experience.
- Some specific lecturers not seen as effective

Do you have other comments or suggestions that would be helpful in planning the next course course?

- More specifics/concrete examples in all lectures
  - "In general, I felt that the most useful lectures had tangible, concrete messages in addition to higher, overarching messages. It would be great for lecturers to focus on having strong, applicable ";take home messages.";"
- Move 7 steps lecture earlier in course
- Record lectures for student reference
- Some sense that the Dartmouth story of health care delivery science is overemphasized in the course and perhaps more practical knowledge might be helpful
  - "I feel like I was being sold a product and I didn't like that"

Suggestions for Course Director

1) Overall role in the curriculum for innovation and what changing HSP would mean for the overall Geisel objectives
2) Narrative feedback
3) What to do with your high profile speaker that students found less effective