College Within the College: Population Health

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Rationale

• The current approach to educating health professionals has not kept pace with the needs of our growingly diverse population.
  – Health Professional Education for the 21st Century -The Lancet and Institute of Medicine
• AAMC – Population Health
• APTR/CDC/AAMC – Patients and Populations. Public Health in Medical Education
• JMC Leadership and Curriculum Committee – one year planning process – 2009-2010
Curriculum Task Force - Future

- Knowledge and skills for improving quality of care and safety for all
- Expanding use of evidence to guide medical decisions
- Managing Chronic Illness by coordination of care and utilization of multidisciplinary approaches
- Prevention and Health Promotion = everyday patient care
- Strategic focus on “non-biologic determinants of health” = poverty, education, housing
- Awareness by medical providers about community based resources that enhance care
Future

• Health implications of cultural diversity
• Global Health opportunities and challenges
• Healthcare Reform – leadership of physicians in efforts to reduce costs and improve quality
• Physician as Advocate
• Addressing the needs of an aging society - with dignity
Expanded Chronic Care Model

The Model for Improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?

The Expanded Chronic Care Model

Community

- Build Healthy Public Policy
- Create Supportive Environments
- Strengthen Community Action

Health System

- Self-Management / Personal Skills for Health
- Delivery System Design / Re-orient Health Services
- Decision Support
- Information Systems

- Informed Activated Community
- Informed Activated Patient
- Productive Interactions & Continuous Relationships
- Available, Proactive Care Team
- Proactive Community Partners

Population Health Outcomes

- The Triple Aim
  - Patient and Provider Experience of Care
  - Per Capita Costs

Jefferson Medical College
The “ideal” Agents of Change

- ........ educational reform aimed at overcoming the deficiencies and disparities in our current health care system may produce health professionals that become “agents of change”, committed to designing a system of care that is equitable, cost-effective, prevention-oriented, universal, and thus moral”.

College within the College (CwiC)

• The development of programmatic tracks providing students with academic opportunities outside of the traditional medical curriculum represents a national trend in medical education. (Brown, Duke, Stanford, Pittsburgh, Emory, Case-Western, New Mexico, others)

• Jefferson’s College within the College Scholarly Concentrations (SC) Program began in the Fall of 2010 with two areas of concentration –

• Population Health (emphasizing Public Health, Global Health and Community Medicine)

• Clinical-Translational Research (emphasizing rapid movement of discovery in the lab → to care at the bedside→ community).
College within the College

• This *parallel (and elective) curriculum* emphasizes:
  – Longitudinal mentored relationships, working closely with key faculty
  – Didactic sessions; group seminars; experiential opportunities; on-line programs
  – Participation across Years I-IV of medical school
  – Completion of a scholarly project and product
  – Can be completed within 4 years, no additional tuition
  – Opportunities to apply credits to other advanced degree programs (e.g. 15 credits toward MPH)
College within the College

- Students must be in good academic standing
- Applications available in December and students selected in late January of Year I.
- Programs begin early February of Year I
- All curriculum *carefully* woven into medical school calendar
- Years I and II: didactic sessions, seminars, experiential programs, and assignment of mentors
- Years III and IV: complete clinical rotations and electives related to their concentration
- In the Summer between Year I and II, students work in areas related to their area of concentration.
- Each student must produce a “Scholarly Product” in Year IV.
College Within the College

- Scholarly products may take the form of
  - research papers, conference presentations, curriculum modules, policy analysis, or other scholarly work.

- Students encouraged to publish their work and/or present at regional and/or national conferences.
College Within the College

Benefits to students:

• Unique experience and exposure, graduate-student forum within a medical school environment
• Opportunity to keep learning alive in areas given less time in traditional curriculum
• Recognition at graduation: Dean’s Letters, certificate of completion
• Credits toward an additional degree (e.g. MPH, MS, PhD)
Graduation
Population Health

• An approach to health that aims to improve the health of an entire population. One major step in achieving this aim is to reduce health inequities among population groups. Population health seeks to step beyond the individual-level focus of mainstream medicine by addressing a broad range of factors that impact health on a population-level, such as environment, literacy, ethnicity, social structure, resource distribution, etc. An important theme in population health is importance of social determinants of health.

CwiC- PH – bridge medical education and population health principles, practices, knowledge and skills
The preamble to this Charter is that professionalism is the basis of medicine’s contract with society. Fundamental principles of professionalism are the primacy of patient welfare, patient autonomy, and social justice. “The medical profession must promote justice in the health care system, including the fair distribution of health care resources. Physicians should work actively to eliminate discrimination in healthcare, whether based on race, gender, socioeconomic status, ethnicity, religion, or any other social category.”
CwiC – Population Health

Ideal for those interested in:

• Career in academic medicine and population health
• Community based research in future practice
• Addressing health equity and social justice
• Improving quality and cost of care
• Engaging with communities – locally and globally
• Achievement beyond the curriculum
Evaluation

- Pre test – attitudes, beliefs
- Student and mentor satisfaction
- JMC Longitudinal study
- AAMC questionnaire
- Attrition rates
- Publications and presentations
- Comparison to non-participants - Specialty choice, Match results, Future academic career
COMMUNITY MEDICINE/HEALTH

1) Care to vulnerable populations

2) Health promotion through programs and community engagement and partnerships

Epidemiology
Biostatistics
Environmental Health
Health Services Research
Social/Behavioral Determinants

North Philadelphia
• Project Home
• Federation
• Churches

West Philadelphia
• TOCFWH
• Belmont
• Churches
• Senior Centers

South Philadelphia
• Point Breeze
• Dixon House
• South East Philadelphia Collaborative and Churches

Mazzoni
Jeff HOPE
YES
PATHWAYS
Wellness
Senior Centers

Jefferson Medical College
Center for Urban Health

- Literacy
- Men’s Health
- Breast health
- Chronic Disease Management
- BP+
- DSME
- Systems and policy change – obesity, workforce development
ARCHES Project

Focus Areas

– Access and Advocacy
– Research, Evaluation, and Outcomes Measurement
– Community Partnerships and Outreach
– Health Education, Screening and Prevention Programs
– Educating Health Professions Students and Providers
Jeff H.O.P.E. – 2002-present

- Health, Opportunities, Prevention, Education
- Jefferson students, residents, faculty
- Extensive organization - since 1992
- 2000 + visits per year at 5 sites
- 35,000 visits since inception
- Primary care – weekly!
- Social Advocacy,
- Screening and Health Education – Smoking Cessation, Diabetes
- Multiple Awards – AAMC, PPHA, GSK
Streetside Medicine
Immigrant and Refugee Health

- Center for Refugee Health
- Burma, Iraq, Eritrea, Nepal, Cuba, Haiti

Philadelphia High School = 67 languages spoken

Nationalities Service Center
PROJECTS

- Education
  - AIDS/HIV
  - Nutrition
  - Prenatal
  - Family Planning
- EWB - Sanitation
- Malnutrition
- Income Generation
- Chicken Rearing
- Elderly Visits
- Survey
- Continuity
Jefferson School of Population Health

Masters Public Health

Masters Health Policy

Masters Quality and Safety

Masters in Applied Health Economics and Outcomes Research

Certificate in Chronic Disease Management

PhD – Population Health
CwiC - A Four Year Course
<table>
<thead>
<tr>
<th>Year 1</th>
<th>Summer</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Intersession</th>
<th>Year 4</th>
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</thead>
<tbody>
<tr>
<td><strong>Aug</strong> - Orientation</td>
<td>BTG Global Travel</td>
<td>ICM II – cases</td>
<td>On-going Advising</td>
<td>On-going Advising</td>
<td><strong>Electives – 2 required</strong></td>
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<tr>
<td><strong>Sept-Dec</strong> – Monthly overview</td>
<td>DFCM Assistantship</td>
<td>On-going Advising</td>
<td>MD/MPH and MD/MS</td>
<td>MD/MS advising</td>
<td>•Community Medicine</td>
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<td>Discussions (Peers)</td>
<td>Other – To be arranged with guidelines</td>
<td>Syllabus. List serve, discussion board</td>
<td>Peer mentoring</td>
<td><strong>Peer mentoring</strong></td>
<td>•Refugee Health</td>
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<tr>
<td><strong>Dec</strong> - Application</td>
<td>Service to other organizations at interface (clinical/public health):</td>
<td><strong>Clerkship assignments -PH</strong></td>
<td><strong>Clerkship</strong></td>
<td><strong>Clerkship</strong></td>
<td>•Medical Partnerships and Homelessness</td>
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<tr>
<td><strong>Jan</strong> – Interviews and Selection</td>
<td><strong>Topics</strong></td>
<td>case-studies and reflections – one per clerkship - What would have prevented admission? What policy change would improve quality of care, prevent admission, improve outcome? In-Time</td>
<td>Enhancements</td>
<td><strong>SELECTIVES – block experience with community agency; self-guided assignments</strong></td>
<td>•International Health</td>
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<tr>
<td>Assign Advisor</td>
<td>- Health Promotion - Preventive Services</td>
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<td>•Indian Health Service</td>
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<td>Assign Clinical Mentor (COPP)</td>
<td>- Community Preventive Services Task Force</td>
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<td>•Advocacy/Policy</td>
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<tr>
<td>Participate -Jeff HOPE, Jeff YES</td>
<td>- Chronic Care Model</td>
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<td>•Other TBD</td>
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<tr>
<td>Public Health Society, IMS, Other</td>
<td>- Social epidemiology</td>
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<td><strong>Late Jan - Syllabus</strong>, List serve, discussion board, <strong>Learning Contract</strong></td>
<td>- Individual Health Behavior</td>
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<td><strong>Scholarly Project</strong></td>
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<td><strong>Feb-June (2-5 PM – twice monthly)</strong> - lecture, discussion, PBL, community site visits (Project HOME, MCC, FNC, Mazzoni, YES) – Learning-Service activities</td>
<td>- Interpersonal Health Behavior</td>
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<td><strong>Graduation – “added qualifications - certificate” Dean’s letter Transcript</strong></td>
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<td><strong>Topics</strong></td>
<td>- Social Theories Behavior</td>
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<td>- Introduction PH/HP2020</td>
<td>- Community Models/CBPR</td>
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<td>- Ecological Model</td>
<td>- Population Health approaches to</td>
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<td>- Health Data Systems</td>
<td>•Diabetes</td>
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<td>- Health Literacy</td>
<td>•CV Disease – Hypertension/CAD/Stroke</td>
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<td>- Social determinants</td>
<td>•Obesity/overweight/nutrition</td>
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<td>- PRECEDE-PROCEED</td>
<td>•Cancer</td>
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<td>- Individual health behavior</td>
<td>•HIV, Hepatitis, HPV, Immunizations</td>
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<tr>
<td>- Culture, race and health</td>
<td>- Quality – <strong>Transitions of Care</strong></td>
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<td>- Environmental health</td>
<td>- Aging</td>
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<td>- ICM I enhancement</td>
<td>- Tobacco control</td>
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<td>- Policy and advocacy</td>
<td>- Maternal Child Health</td>
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<td>- Global health – mini course (for International travel)</td>
<td>- Public Health Ethics</td>
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<td><strong>LUNCH and LEARNs and Relevant campus and city programs</strong></td>
<td>- Selected PBH 501 Classes</td>
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**LONGITUDINAL** Mentoring and Advising quarterly **LONGITUDINAL** Mentoring and Advising quarterly

**Jefferson Medical College**

On-Going Evaluation

**On-going Evaluation**
Cohort I – February 2011

• 28 students – 12% of the class
• Application Essay – *Why are you interested in Population Health, and what do you hope to learn?*
• 30 Mentors – Family Medicine, Internal Medicine, Surgery, Pediatrics, Emergency Medicine, School of Population Health
  – provide career mentoring
  – provide experiential opportunities
  – assist in developing broad capstone goals
• Mentor’s Manual
• Syllabus
Cohort II – February 2012

• 40 students – 18% of class
• Additional Mentors
Cohort I – Summer 2011

- 11 – International Travel
- 6 – Bridging the Gaps
- 1 – DFCM Assistantship
- 4 – Center for Urban Health
- 2 – Christiana/Dupont
- 2 – Deans Summer Research – OB/GYN
- 1 – Department of Public Health – San Francisco
- 1 – USAF
Summer Projects
Final paper – Year 1

• The scientific basis for Public Health rests on the study of risks to the health of populations and on the systems designed to deliver required services. The *problem-solving paradigm* in Public Health practice is a model to apply this science. The key components of this model are:
  – Problem Definition
  – Problem Magnitude
  – A Conceptual Framework (e.g. – Ecological Framework) for Key Determinants
  – Intervention Strategy
  – Policy Development
  – Implementation and Evaluation
Final paper

• Taking the Public Health issue/problem that you worked on during the summer, prepare a paper using the six components as a guide
Year 1

Topics
• - Introduction PH/HP2020
• - Ecological Model
• - Health Data Systems
• - Health Literacy
• - Social determinants
• - Culture, race and health
• - Environmental health
• - ICM I enhancement
• - Policy and advocacy
• - Global health – mini course (for International travel)
• Relevant campus and city programs

9 - 2-3 hour sessions
Readings, on-line discussion, question
Group Activities
Example – Year 1 – Session 2 – Race and Culture

• Lecture – Discussion
• Diversity Shuffle – Reflection Paper - In one page or less, please address the following questions:
  – What racial/ethnic group do you belong to? How did it feel to be in the group which had to walk across? What incorrect assumptions or stereotypes do people make about your group? What surprised you about the exercise?

• In the two chapters from *Culture, Health and Illness*, Helman reviews the Scope of Medical Anthropology and Cultural Definitions of Anatomy and Physiology. Since you began at Jefferson and completed HFD and are getting deeply into Systems, what are your cultural views of the “body”? Have they changed? Share your thoughts.
  • [https://pulse.jefferson.edu/webapps/portal/frameset.jsp?tab_id=11_1](https://pulse.jefferson.edu/webapps/portal/frameset.jsp?tab_id=11_1)
  • [http://www.equalitytrust.org.uk/resources/inequality-video](http://www.equalitytrust.org.uk/resources/inequality-video)
Example - Year I – Session 4 - Advocacy

Advocacy
- 510-515 – Introduction/Orientation – Break into 5 groups
  - think about an issue that you have "advocated" for, what did you do, was it effective, what would you differently
- 515 – 600 – Group Work – ideas, themes
- 600-630 – Report Out/Summary
- 630-800 – Food Inc

Readings
Example - Year I – Session 6 – Theme - Linking Social Determinants, Advocacy, Homeless Prevention, Integrated Care

• Agenda
  – Community Assessment (walking tour, windshield assessment; existing data)
  – The Wellness Center
  – Honickman Comcast Learning Center

• Readings/Websites
  – Brian Wallin’s MSPH Thesis
  – www.projecthome.org
Barriers to Health

(Schulz, Kannon 2005; Schulz, Zenk 2005)

- Limited access to services
  - primary care
  - behavioral health
  - physical therapy
  - health information

- Limited outdoor space

- Inadequate Housing, Schools

- Neighborhood Violence

- Limited access to fresh food

- Stress
  - psychological
  - environmental
  - economic

- Health behaviors
  - Dietary choices
  - Physical activity

Fragmented, Inequitable Healthcare System

Poverty

Racial segregation

Poor Neighborhood Health
INTERDISCIPLINARY STREET CLINIC
RESPITE CARE
HOME VISIT PRG

COMMUNITY-BASED MENTAL HEALTH CARE
Counseling/Prevention programs/Case Management: D&A, mental health, IPV, Child maltreatment
Women Against Abuse
Council for Relationships

JEFFERSON PRIMARY CARE

INTEGRATION SERVICES
Wellness Center Director
Reception & Central Scheduling
Patient Navigator / Care Coordination
Targeted Case Management
Community Health Workers & Peer Specialists
Nutrition Education & Consultation
Child Care

DENTAL CARE
adults, children
acute care, preventive screening, oral health education

YMCA
Referrals from PH sites, Jeff Primary Care, JFMA, Mental Health Services, Physical Therapy

PHARMACY & QUEST LAB SERVICES (TBD)

PHYSICAL THERAPY (TBD)

NORTH PHILLY “WALKING NEIGHBORHOOD” PROJECT

Project Home Wellness Center
Example - Year I – Sessions 9 and 10

Global Health
Public Health Ethics
Human Rights
Country Health Profiles
Case Discussions

Readings
• Principles of the Ethical Practice of Public Health - 2002 Public Health Leadership Society
In addition

• Announcements/recruitment to on-campus and local activities related to PH
  – Movies
  – Presentations
• Book club
• Provided textbook and additional books
  – Introduction to Public Health
  – Demand Better
  – Mountains Beyond Mountains
Summer

• Bridging the Gaps
• Global Travel
• DFCM Assistantship
• **Other – To be arranged with guidelines**
  – Service to other organizations at interface of clinical/public health):
• Schweitzer Fellowship
Year 2

• **Topics**
  • Health Promotion - Preventive Services
  • Community Preventive Services Task Force
  • Chronic Care Model
  • Social epidemiology
  • PRECEDE-PROCEED
  • Individual health behavior
  • Social Theories Behavior
  • Community Models/CBPR
  • Population Health approaches to
    – Diabetes
    – CV Disease – Hypertension/CAD/Stroke
    – Obesity/overweight/nutrition
    – Cancer
    – HIV, Hepatitis, HPV, Immunizations
• Quality – **Transitions of Care**
• Literacy
• Public Health Ethics

18- 2-3 hour sessions
On-line discussion, questions
Group Work
Year 2 - Examples

• Health Literacy
• Presentations of Summer Work
• Link to Fundamentals of Clinical Medicine – Integration of Theory – PRECEDE, TTM, HBM, SLT
  – Preventive Cardiology – Million Hearts Campaign
  – Reproductive Health – Cervical Cancer/HPV
  – GI – Hepatitis C and Colon Cancer
  – Diabetes – DSME Group Visit
  – Cancer Prevention and Control
  – Asthma/COPD – Tobacco Control
  – Community Engagement - Immersion
  – Mental Health – ACES and Trauma Informed Care
Example - Year 2 – Session 2

• Health Literacy
  – Scope of the problem
  – Recognizing literacy problems in individuals
  – Strategies for working with low literacy individuals and populations

• Teach back exercise
• Medication assessment
• Assignment – taking an informed consent and modify to 5-6th grade reading level

• Readings
  – Health Literacy for Clinicians – AMA Foundation
  – Martin, LT and Parker, RM, Insurance expansion and health literacy - JAMA, on-line August 9, 2011
Example - Year 2 – Session 2

- Liver, GI Disease, Hepatitis, Alcoholic Liver Disease,
  - Preventive Services Task Force
  - Cancer Prevention and Control
  - “Put Prevention into Practice”
  - Hepatitis C – Screening

Wong T, Lee S. Hepatitis C: a review for primary care physicians. CMAJ • February 28, 2006 • 174(5) | 649
How to Increase Preventive Screening Rates in Practice: An Action Plan for Implementing a Primary Care Clinician’s* Evidence-Based Toolbox and Guide
Sarfaty M, Wender R, Smith R. Promoting Cancer Screening Within the Patient Centered Medical Home. CA CANCER J CLIN 2011;61:397–408
Example - Year 2 – Session 11

- **Hematologic Malignancies**
  - Palliative Care – a Public Health Issue
  - Health Beliefs and Culture
  - Readings

  - Improving End-of-Life Care: A Public Health Call to Action. Sally Gaintner Hess, RN MPH Candidate Capstone Project - Johns Hopkins Bloomberg School of Public Health

  - Health promotion and palliative care - Allan Kellehear

Year 3

- **Clerkship assignments** - PH case-studies and reflections – one per clerkship – group discussions
  - What would have prevented admission?
  - What policy change would improve quality of care, prevent admission, improve outcome?

- **Scholarly Project** planning

- **Peer Mentoring**
Intersessions

- On-going Advising
- Special Topics Sessions – (inter-clerkship)
  - Public Health Research Methods
- JOINT DEGREE - Transition
Year 4

- Electives – 2 required
  - Community Medicine
  - Refugee Health
  - Medical Partnerships and Homelessness
  - International Health
  - Indian Health Service
  - Advocacy/Policy
  - Other TBD.
- Peer mentoring
- Scholarly Project
- Graduation – “added qualifications -certificate”
What have we learned so far

• Weave around the ebbs and flows of student examination schedule
• Discussions preferred – “no talking heads”
• Flexibility in assignment due dates – a 4 year course!
• Small group discussions
Evaluation

- Four students left program….”not what she expected”; “too much time”, “academic difficulty”, “involved in too many other activities”
- Overall Program rating – 3.4 (1 poor-5 excellent)
- Dimensions of global health series – strong rating
- More community immersions
- Better understanding of what MD’s are doing with a PH degree
- Networking important
- More group discussions

- Reworked curriculum for Cohort I and Cohort II
Challenges

- Ensuring PH related summer projects
- Maintaining mentoring relationship
- Competing with traditional curriculum
- Competing with extensive extracurricular opportunities
- Organizing meaningful discussions
- Articulating role of PH in clinical training and care
- Challenge of taking extra year for MPH – financial, personal, momentum
HRSA – Builds on CwiC - PH

- $1.25 million over five years
- Create, implement, and evaluate a Jefferson Inter-professional Primary Care Dual Degree Program (IPCDDP).
- The mission of the IPCDDP is to provide outstanding training in primary care and innovative education in chronic care management and population and public health in order to prepare primary care leaders to serve as future change agents working to improve the health of Americans, especially its most vulnerable and underserved populations.
- MD/MPH or MD/MS – Chronic Disease Management
Thanks

Questions

Contact – James.Plumb@jefferson.edu
Rickie.Brawer@jeffersonhospital.org