Longitudinal Medical Education at Duke-
Our own special “Magic Carpet Ride” for the past 6 years.

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Professor of Medicine
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Why a Magic Carpet Ride?

- Iconic song from 1960’s about letting go even if for brief moments to see what might happen because unexpected outcomes might occur.
Magic Carpet Ride

So what happened at Duke in 2009 with the ride?
Primary Care Leadership Track

• Our nickname is PCLT.
• Created 8 years at Duke after a large grant was received from donor to promote primary care at Duke.
• This program grew out of the inspiration and possibilities that a group of us believed in.
• Hopefully sharing some of our lessons learned might inspire your group to consider trying some new things as well.
• and I hope for this discussion to be bidirectional.
Learning objectives—at the end of this talk, you will be able to:

• 1) Articulate details of our longitudinal program at Duke.
• 2) Identify unique features of our PCLT program to determine what makes it a bit unusual.
• 3) Look at some of our metrics to learn how we assess our progress and direction.
• 4) Benefit from review of our (not so unique) challenges that we have faced.
• 5) Compare your program to ours, and consider how you might make some changes within your program at WWAMI.
What is this entity called the Primary Care Leadership Tract (or PCLT)?

• It’s an innovative program primarily designed to:
  • A) promote primary care within our medical center.
  • B) teach population health to our students.
  • C) strengthen leadership skills for our students.
  • D) endorse community engagement in many ways.
  • E) create change agents who will someday transform primary care and address the general health of the public.
PCLT in a Nutshell

• It is a 4 year program with a 8 month longitudinal experience in our clinical year (which is year 2) utilizing a number of different preceptors during this time.

• Our third year involves a community based research project
Our work has been published in Academic Medicine 2014

The Primary Care Leadership Track at the Duke University School of Medicine: Creating Change Agents to Improve Population Health

Barbara Sheline, MD, MPH, Anh N. Tran, PhD, MPH, Joseph Jackson, MD, Bruce Peyser, MD, Susan Rogers, MDiv, and Deborah Engle, EdD

Abstract

**Problem**
Physicians need training in community engagement, leadership, and population health to prepare them to work with partners within the community and to adapt medical care to address population health needs.

**Approach**
With an overall goal of training primary care practitioners to be change agents for improving population health, the Duke University School of Medicine launched the Primary Care Leadership Track at the Duke University School of Medicine. The curriculum is designed to contribute to existing community health initiatives, perform community-engaged research, and participate in leadership training. The clinical curriculum incorporates a longitudinal approach to allow students to follow patient outcomes. In addition, students regularly interact with faculty to explore population health issues, review patient cases, and adjust individual learning opportunities as needed.

**Outcomes**
The first cohort of PCLT students will be planned on performance on standardized tests and career choices.

**Next Steps**
The authors created the PCLT as a laboratory in which students can engage with the community and explore solutions to address the health of the public and the future delivery of health care. To meet the goal of training change agents, PCLT leaders need to expand opportunities for students to learn from providers and organizations that are successfully...
We have jointly led the Consortium of Longitudinal Integrated Clerkship meeting (Like Jay and Bernadette did in 2013)
We have presented our work in a variety of sites and conferences. (We like to talk a lot).
We have grown from 3 brave souls in 2011 who helped us start out.
Now we are graduating 8-10 students per year
PCLT by the numbers

- 50 participants
- 30 current students
- 10% (attrition rate)
- 350 applicants each year for 8 slots
- Number of preceptors /year 28
- Busy Administrative Assistant 1
- Program budget $350,000
- Loan repayment for students granted at end of year 4 (when match) = $ 40,000
What does a typical schedule look like for a PCLT student?
## Overview of PCLT Schedule for 4 years

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Leadership Orientation</th>
<th>Leadership Dinners Monthly</th>
<th>Basic Science Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>YEAR 2</td>
<td>Practice Course and Clinical Skills Course</td>
<td>Surgery/ Neuro (2)</td>
<td>Psych (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>YEAR 3</td>
<td>Community-engaged Population Heath Research</td>
<td>Optional leadership opportunities</td>
<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>YEAR 4</td>
<td>Clinical electives</td>
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</table>
# Sample Week

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>Family Medicine Clinic</td>
<td>Psychiatry clinic</td>
<td>Internal Medicine Clinic</td>
<td>Community Team</td>
<td>Pediatrics clinic</td>
<td>Urgent care or ER call</td>
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<tr>
<td>Noon</td>
<td></td>
<td></td>
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<tr>
<td>PM</td>
<td>#</td>
<td>Tutorial</td>
<td>Practice Course</td>
<td>Ob-Gyn/Surgery clinic**</td>
<td>#</td>
<td></td>
</tr>
<tr>
<td>evening</td>
<td></td>
<td>ER call</td>
<td>Gyn clinic</td>
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</tbody>
</table>

** Alternate weeks  
# "White space" in schedule provides time for students to follow their patients to other appointments, perform home visits, work with community teams, etc.
Program Scaffolding for PCLT- What are important features of our program?

1) Emphasize connectedness amongst our students beginning year 1.
2) Close relationships with faculty
3) Primary Care Seminar in Year 2
4) We cross boundaries inter-professionally, and within different specialties.
5) Ongoing examination, analysis, and emphasis upon leadership skill sets.
6) Focus on population health
7) Emphasis upon community engagement.
Let's dig in deeper to the details - What are some of the hallmark features of our program?
1) How do we train our future leaders?
Leadership teaching/mentorship year 1
What exactly happens?
Exposure to variety of leaders over 4 years

Dr Eugene Washington
Chancellor at Duke

Coach Mike Krzyzewski
Meeting with Duke Leadership
Working out in the community, our students work closely with leaders of local health centers.
There is focused specific leadership training
DiSC

DOMINANCE
- Direct
- Results-oriented
- Firm
- Strong-willed
- Forceful

INFLUENCE
- Outgoing
- Enthusiastic
- Optimistic
- High-spirited
- Lively

CONSCIENTIOUSNESS
- Analytical
- Reserved
- Precise
- Private
- Systematic

STEADINESS
- Even-tempered
- Accommodating
- Patient
- Humble
- Tactful
Leadership opportunities to teach in 3rd yr
2) Population Health
Population health- What are our goals?

• 1) To work as a team.
• 2) Understand health planning for community and populations.
• 3) Develop the knowledge, skills, and attitudes needed for culturally competent care.
• 4) Work effectively with other providers in the health care arena.
• 5) Model service to patients and community.
• 6) Individualized training in 3rd year with 40 hours elective activities in Population Health Education
Many of our 3rd yr students obtain a Masters Degree in Public Health at UNC Chapel Hill
3) Community Engagement
How do we teach and learn about communities?

- 1) Pre-Orientation Service Day in the community (yr 1)
- 2) Community Engagement training (yr 1)
- 3) 7 Day immersion into Durham community at beginning of Clinical year (Community Orientation) (yr 2)
- 4) Second year community team service projects
  (yr 2 28 half days) (emphasis on service)
- 5) Community engaged population health research (yr 3 10-12 months)
Our students learn about common challenges in the community when they have to prepare a meal for 8 on a $7 budget.
Our students work in local community organizations such as at CAARE INC to monitor blood pressures of patients.
Bull City Fit

- A free community based wellness program only for children in Healthy Lifestyles, a pediatric obesity treatment program.
- Families and kids in program can use neighborhood facility for sports, swimming, yoga. There are nutrition classes and peer support.
- Serves low income African American and Hispanic families.
- Duke students from PCLT volunteer there, and help with ongoing research projects.
El Centro Hispano Community Project

Javier worked with this nonprofit group to plan annual health fair for Latino Population and to develop partnership with Durham County Health Department

Javier Galan
4) Our Clinic Experiences are.....

AWESOME
PCLT has a long tradition of important work in outpatient clinics in the south.
Working in the Clinic-how does it work?

Our students work in three primary care clinics (Medicine, Pediatrics, and Family Medicine) every week.

They come at the same time (e.g., Thursday afternoons).

They follow approximately 20 patients on a longitudinal basis throughout their clinical year.

If their patients go to ER, or are admitted, or have surgery, the students follow them.
5) Centering is Key (what is it??)
Centering

• Entails student involvement with a group of 5-8 pregnant women who come to prenatal classes on a monthly basis.
• Our students help teach and facilitate coverage of topics that are relevant.
• Leadership skills practiced include learning how to effectively facilitate group discussion.
• When the women deliver, our students are at bedside.

From Black Hills ENT And Facial Plastic Surgery
Centering allows our students to bond closely with families and patients in the community.
Our students deliver a large number (3-5) of babies through Centering.
And our students stay in touch with the families and babies that they assist and deliver..
Metrics at Duke - how do we self assess?
Differential Diagnosis Skill Sets

Confidence: Differential diagnosis skills

Mean rating

Traditional

LIC

2013-14 2014-15 2015-16
Physical Exam Skill Sets

Confidence: Physical exam skills

Mean rating

- Traditional
- LIC

Year
- 2013-14
- 2014-15
- 2015-16
Was Time Well Spent?

Time spent in the clinics on this clerkship/LIC was well-used for educational purposes.
Overall Ratings

All things considered, what is your overall rating of this clerkship/LIC?

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional</th>
<th>LIC</th>
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<tbody>
<tr>
<td>2013-14</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2014-15</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2015-16</td>
<td>3</td>
<td>4</td>
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What are challenges we have faced?

- Losing good candidates who matriculate at other institutions not ours.
- Finding sufficient faculty members who are not burned out and want to continue with us yearly.
- Coping with troubled/challenging students.
- Working with occasional weak faculty educators (rare) and how to get them to faculty development.
- Adjusting to a tight budget with little wiggle room.
- Figuring out what to do with our students in 4th yr.
Faculty Recruitment Issues

How do we find good preceptors?

How do we train faculty? (the best come to faculty development, the weaker ones don’t come)

How do we support, nurture, recognize, and pay faculty for their time to teach our students?

Stipend Duke Faculty receive to teach a learner per hour—

$18.75/hr
Our Outcomes after 6 years:

- Shelf scores similar to traditional students (locally and nationally)
- All recent graduates were matched at their first choice of residency and are going into primary care.
- Duke rated #8 in primary care by US News and World Report – (but here’s the update for latest year)
- SOM Dean wants a new longitudinal program for non primary care students
How do I personally define success of our program?

- 1) Our candidates successfully match in primary care.
- 2) Our ranking in US News and World Report might continue to rise (and surpass UNC-Chapel Hill!).
- 3) Our students are mostly happy and not burning out.
- 4) Faculty like Dr. Sarah Armstrong invite our students to work with her to do obesity research.
- 5) Students strongly identify with ideals of our program—“Good evening, everyone. I am Kareem Alexis, a second-year student here at Duke on the Primary Care Leadership Track…this program prepares a small cohort of medical students to engage our communities with a greater understanding of the causes of health disparities.”
- 6) I still have fun working within this group, and our leadership team has not changed much since day 1.
Another definition of success—mostly smiles after a year of small group seminar working together.
What lies ahead for longitudinal learning at Duke?
Peyser Predictions….

1) We will grow in size.
2) We will face ongoing budget constraints.
3) We will need to be creative about how we assign students to preceptors. Perhaps we will follow the WAMI model with one preceptor model??
4) We will amass more data and confirm that longitudinal outpatient education is more effective than more traditional inpatient learning in a variety of ways.
5) Nearly all primary care providers at Duke will have an outpatient teaching obligation to fulfill yearly.
So what about that “Magic Carpet Ride”

- It’s been fun.
- It’s been a challenge.
- It’s fun to innovate.
- We have so little chance to influence our institutions, this for me was that one chance.
- We have a solid program supported by leadership from medical center.
- We will continue to grow.
- We are having an influence on other areas of medical education at Duke.
Thank You

I welcome your questions and comments