



## Value: Population Health Conveyed per Dollar Spent

South Carolina Business Coalition on Health  
Greenville, SC 10 May, 2011  
Roger C. Merrill, M.D., Chief Medical Officer



## Agenda

1. Environment of HealthCare in US
2. The Value Proposition:  
Population health conveyed per dollar spent
3. The Perdue Experience:
  - a. PCMH
  - b. Evidence – based plan option
  - c. Upstream Health and Wellness
4. What can you do?



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*



## Environment of Healthcare in the US



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

- Cost:
  - ~~\$2.8T~~ \$3.0T
  - \$10,500 per employee
  - Highest in the world!!!
- Product:
  - Life expectancy/ infant mortality
  - Treatment of serious disease



## Environment of Healthcare in the US



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

What's the problem?  
Too much?  
Too Little?  
Too Expensive?  
Too Cheap?

**PERDUE.**

## USA – Cost vs. “Product”

### Under treatment:



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

A Prenatal care



B Stepped Rx of High Blood Pressure

C Intensive Diabetes Risk Control



**PERDUE.**

## USA – Cost vs. “Product”

### Over treatment:



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

A Arthroscopic Knee Surgery



B Antibiotics for sore throats

C Angioplasty



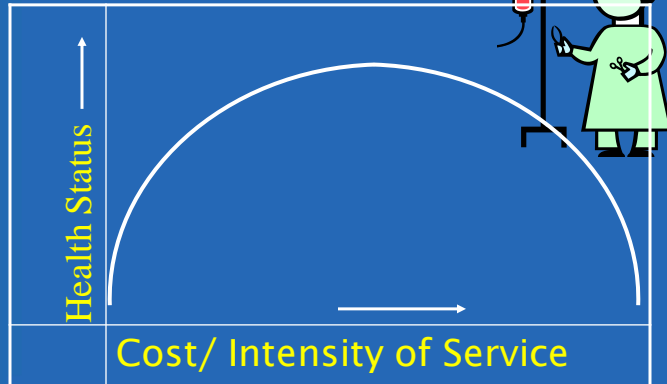


## USA – Cost vs. “Product”

There is a relationship between cost  
And health status improvement:



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*



## Hierarchy of Health Produced [Most to least value]



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

- Rigorous, measured, health improvement initiatives
- Primary Care: Patient – Centered Medical Homes
- Imaging
- Hospital days
- Days in Expensive Care
- Interventions that have proven negative value



## Hierarchy of Health Produced [Most to least value]



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

- IF we accept and believe this, it requires us to act accordingly:
  - ✓ Preferentially put our energy and money on those interventions highest on the value scale
  - ✓ Ability to measure effect of interventions is critical to the process.



## Evidence for Value Prop of Primary Care



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

- ✓ Nations with higher % of PCPs, and higher numbers of PCPs per population are healthier and less expensive.
- ✓ The same is true in geographic areas of the US
- ✓ The same is true at ChickenWorld.



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## If we do nothing:

- ❖ Decreasing numbers of medical school graduates are going into primary care – why?
- ❖ What happens when primary care is delivered by someone else?
  - ❖ Specialists do special stuff!
  - ❖ Extenders cost us more
- ❖ The PCP situation has us on a path of accelerating cost and decreasing quality!



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Value starts with Patient Centered Medical Home

### 7 Joint Principles of the PCMH

1. Ongoing relationship with a personal physician
2. Physician directed medical practice
3. Whole person orientation
4. Coordinated care across the health system
5. Quality and safety
6. Enhanced access to care
7. Payment recognizes value added services



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

**This slide is intentionally  
left blank**



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

**The solution?  
Chicken!!**



## The Perdue Experience

- ❖ On-site primary clinics (called Wellness Centers) which serve as medical home
  - Visits are on the clock, minimal payroll-deducted co-pay, clinics operate during all production shifts.
  - Goal is health improvement in a longitudinal model



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*



## Leveraging the Clinics – Phase 1

1. Adherence to evidence-based medicine
  - A. Protocols for several common diseases
  - B. We audit compliance in a QIP environment: when the science changes, so do the guidelines.



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Leveraging the Clinics – Phase 1

2. Generic drug use went from 65% to 89% driven by
  1. Generic drug sampling
  2. Doctor reports with names for comparison
    1. Powerful driver of physician behavior!



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Leveraging the Clinics – Phase 1

3. Disease management
  - A. There are very poor data showing any return on telephonic DM, but on-site we have access to patients, doctors, nurses, medical records, and generic samples.
  - B. Suddenly we have all tools we need for effective DM.



## Nuts and Bolts

- 90% of primary care at Perdue is delivered in our clinics
- Our associates vote with their feet: they correctly perceive that outcomes – driven care is obtained there
- Cost is < 1/3 of costs at outside location due to:
  - Utilization management
  - Care purchased at wholesale rather than retail



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*



## Leveraging the Clinics – Phase 1

All of this adds up to **control**: of cost, of 'activities,' of what was being done to our associates, and thus of the outcomes of care.



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*



## Evidence-Based Plan Design 1/1/11



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

- Description: BestHealth is a lower cost Plan option - to Perdue and to the associate. Cost savings will be due to improved health from inexpensive but high-value interventions, and to reduction in high-cost but low or negative- value procedures.



## Evidence-Based Plan Design



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

- ❖ Concept 1: Push folks to receive appropriate science- proven interventions
  - ✓ Participants must name a PCP at time of enrollment.
  - ✓ All participants must be active in Perdue Health Improvement Program



## Evidence-Based Plan Design



- ❖ Concept 1 (cont'd)
  - ✓ Folks with certain disorders amenable to effective Rx must have at least 3 Health visits / year.
    - PCP visits for diabetes, hypertension, asthma, CAD, CHF, depression, and high cholesterol
    - Health Coach visits for tobacco, and obesity.



## Evidence-Based Plan Design

- ❖ Concept 2: Pull folks away from procedures and events that have proven low or negative value
  - ✓ Using tools developed by Priority Partners, the Oregon Health Leadership Task Force, and the NCEBBD, we will move folks away from low- or no-value interventions:

Type of Intervention	Only covered at 70 percent...
Coronary angioplasty and Coronary Artery bypass Graft (PCI, PTCA, heart stents, CABG)	Except when the patient has had a heart attack and the angioplasty is performed in the first 120 minutes after the patient's onset of pain Except when the patient is diagnosed with having Ischemic cardiomyopathy (continuous pain congestive heart failure) Except when the patient is diagnosed with having intractable angina (heart pain) causing disabling symptoms that cannot be controlled with medications and lifestyle changes
Knee Arthroscopy (internal scope of the knee)	Except when the patient has a torn meniscus (torn cartilage) Except when the patient has a torn ACL (torn ligament)
Hysterectomy (a surgical removal of the uterus that results in the inability to bear children)	Except when the patient has been diagnosed with Cancer
Low Back Surgery	Except when the patient has spinal stenosis (pressure on the spinal cord)
Coronary CT calcium scoring (procedure performed for the purpose of detecting calcium deposits in coronary arteries-heart)	No exceptions
Nuclear cardiology (nuclear "stress test") Note that "regular" stress tests, or Exercise tolerance Tests – ETT – are covered at regular plan benefits.	Except when the patient has a left bundle branch block (LBBB) on their EKG test results Except when the patient has intolerance to exercise due to arthritis, peripheral vascular disease, or disability.
Radical prostatectomy without a conversation with a 2 <sup>nd</sup> urologist (prostate cancer treatment)	No exceptions

*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Evidence-Based Plan Design

- ❖ Concept 2 (cont'd):
  - Note: For every event there will be a second opinion process available through the Cleveland Clinic, "MyConsult" service.
  - ✓ These items will be covered at a lower level (70/30) of benefit rather than the regular plan benefits (90/10).



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Follow the Rainbow: What's next?

If Primary Care is good,  
primary prevention is even  
better. 7 years ago we  
created the Perdue Health  
Improvement Program  
(HIP)



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Upstream Health and Wellness

- ✓ Every participating associate (86% participate) fills out a brief health risk appraisal
  - Incentives: a smile from our nurses!
- ✓ We measure a few things (BP, lipids, Hemoglobin A1c [diabetes], nicotine, and fat-o-meter)
- ✓ All this gets entered into a database that...



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Upstream Health and Wellness

- ❖ Gives us an aggregate 'health score' for each plant and the Company.
- ❖ Generates a personal health score, and a personal plan for health for each associate.



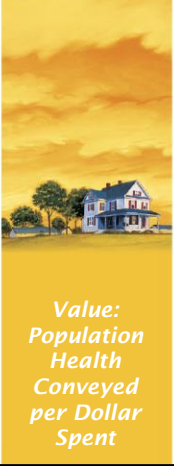
*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Upstream Health and Wellness

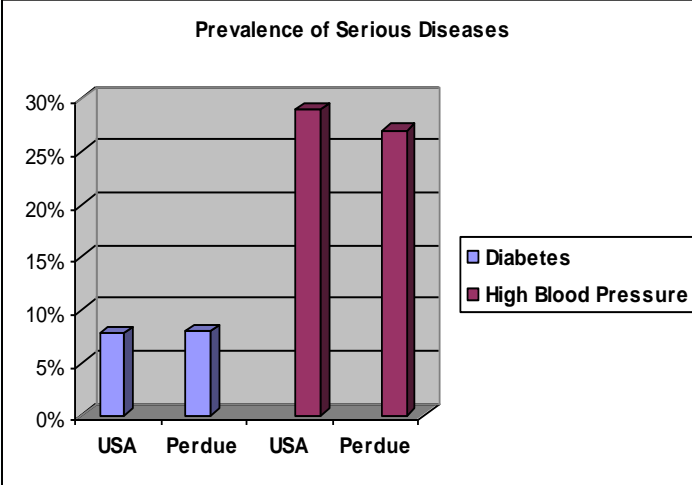
- ❖ Perdue's Health Improvement Program (cont'd)
  - ✓ Perdue Health Coaches work the individual Plan for Health
  - ✓ Metrics: we measure individual, plant, and enterprise-wide health status improvement



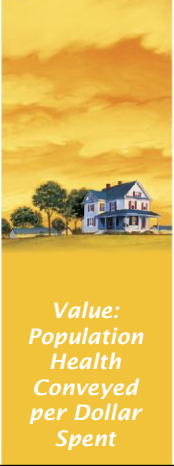
# HIP



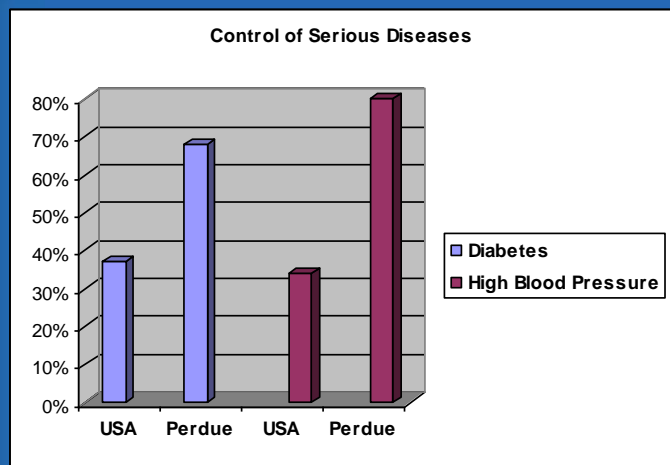
Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent



# Health Results



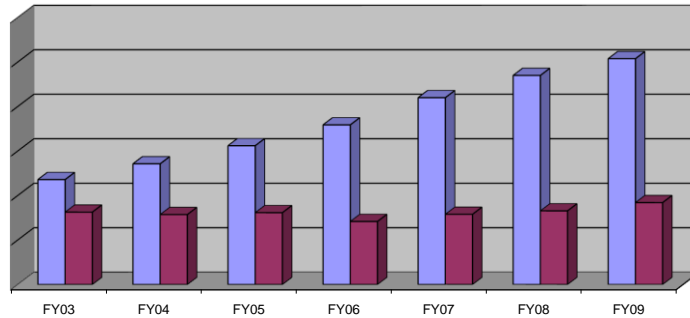
Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent





## The Perdue Experience

Cost per Associate: National Business Group on Health vs. Perdue



## PCP Reimbursements:

- ❖ Primary docs are reimbursed at substantially lower rates than their specialist colleagues.
- ❖ It is tempting to require some better product from them in exchange for more appropriate reimbursements.



*Value:  
Population Health  
Conveyed  
per Dollar  
Spent*



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Caution: do not enter the Weird Zone!

- ❖ In a time of primary care scarcity, what value in demanding more of these wonderful folks?
- ❖ What performance or outcome requirements do we set when new procedures, gadgets, or pharmaceuticals are introduced?



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Caution: do not enter the Weird Zone!

- ❖ Does a new stent have to demonstrate lower mortality?
- ❖ Does a new imaging study prove value by reducing overall cost of a condition?
- ❖ Does an operative intervention have to prove improved, measurable outcome for it to be covered under a medical plan?



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Caution: do not enter the Weird Zone!

- ❖ While we ideally should require such data before coverage is permitted, in fact we do not.
- ❖ Then it is entirely inappropriate to demand a much higher bar for the most ethical, valuable, and patient-centered members of the medical community in their ministrations to our patients.



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Soooo... What can you do?

- ✓ Recognize that primary care is at the top of the food value chain...
- ✓ Build your plan designs to tie to value: better coverage for interventions with proven health outcomes, less coverage for those without.
- ✓ Be creative: the best value in medicine may not be traditional medicine, but rather lifestyle and primary prevention interventions
- ✓ Do something - for...



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Conclusions:

Like all organisms, we evolve to survive, but we transform (or revolute) to prosper



*Value:  
Population  
Health  
Conveyed  
per Dollar  
Spent*

## Agenda

1. Environment of HealthCare in US
2. The Value Proposition: Population health conveyed per dollar spent
3. The Perdue Experience:
  - a. PCMH
  - b. Evidence – based plan option
  - c. Upstream Health and Wellness
4. What can you do?



## **Value: Population Health Conveyed per Dollar Spent**

South Carolina Business Coalition on Health  
Greenville, SC 10 May, 2011  
Roger C. Merrill, M.D., Chief Medical Officer