What's Wrong with Healthcare?

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Chief Executive Officer

OrthoCarolina

EXCELLENCE
IN ORTHOPEDICS

Agenda

- What's wrong with healthcare in the US?
- What would make it better?
- How can you help?

What's wrong with US healthcare?

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- What would make it better?
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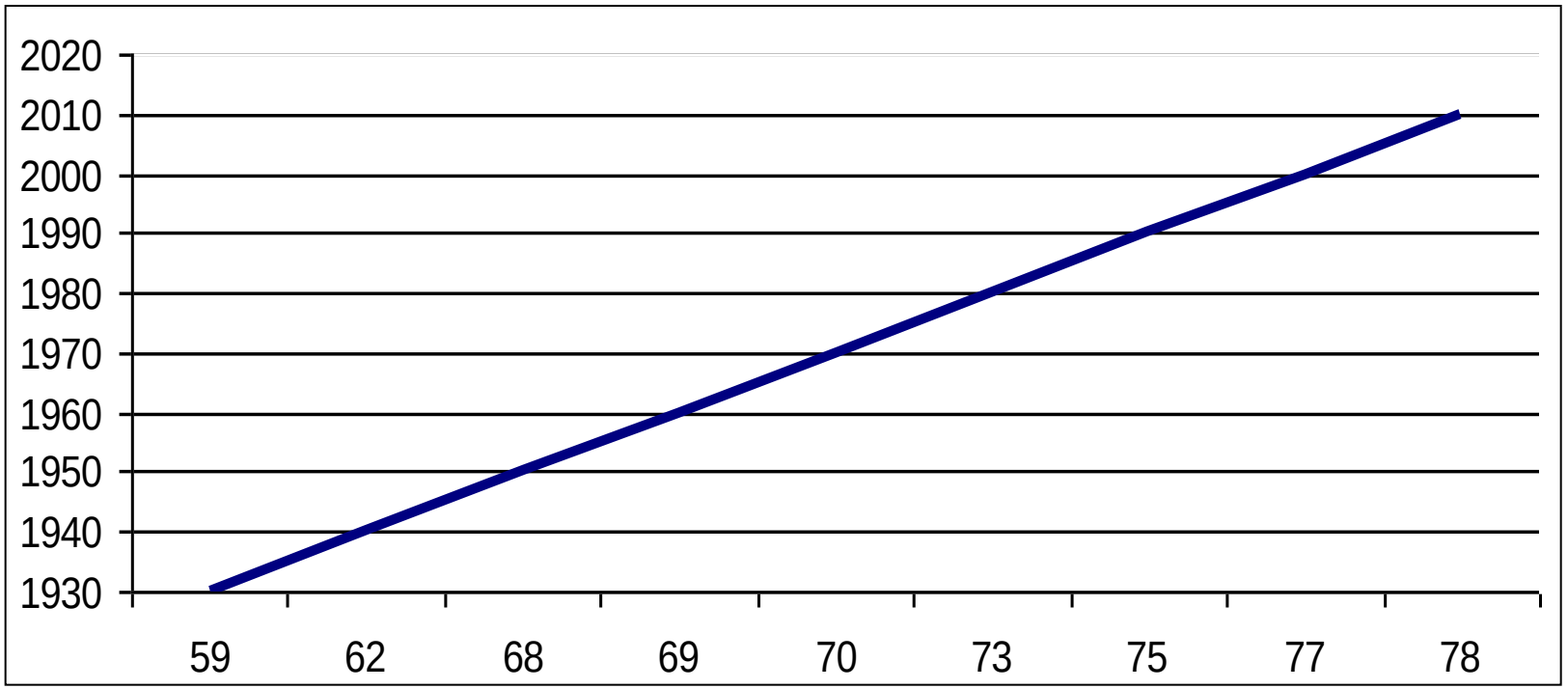
What's wrong with US healthcare?

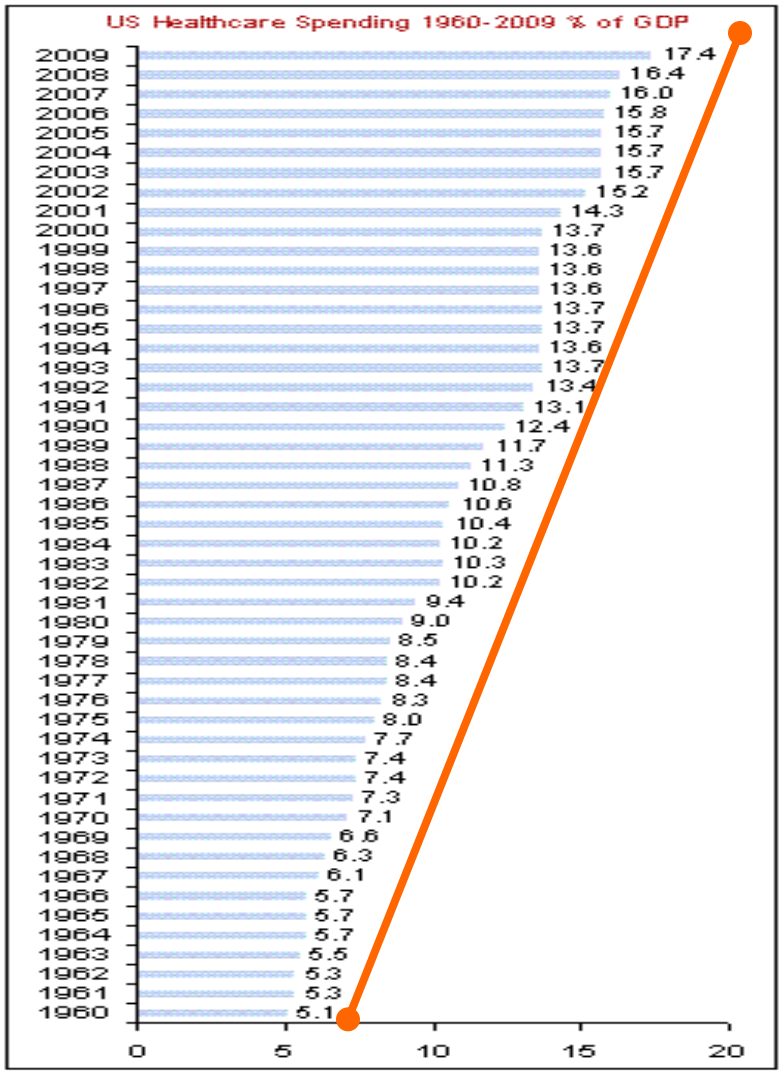
- Life Expectancy has risen 19 years since 1930 …



What's wrong with US healthcare?

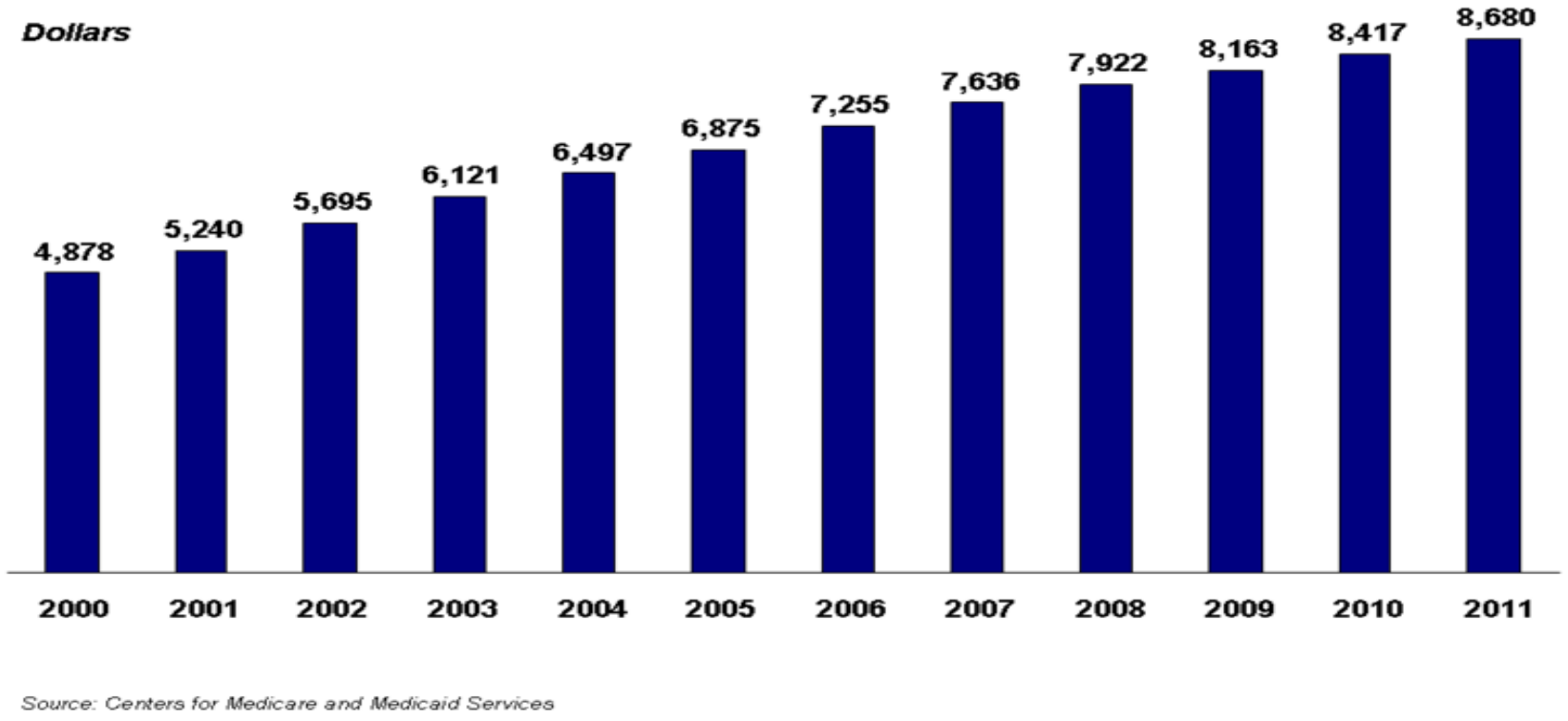
- Healthcare spending as percentage of GDP has risen from 2% to 18% since 1930

16 cents of every dollar is no longer available for roads, education, investment, savings, etc due to increased HC costs



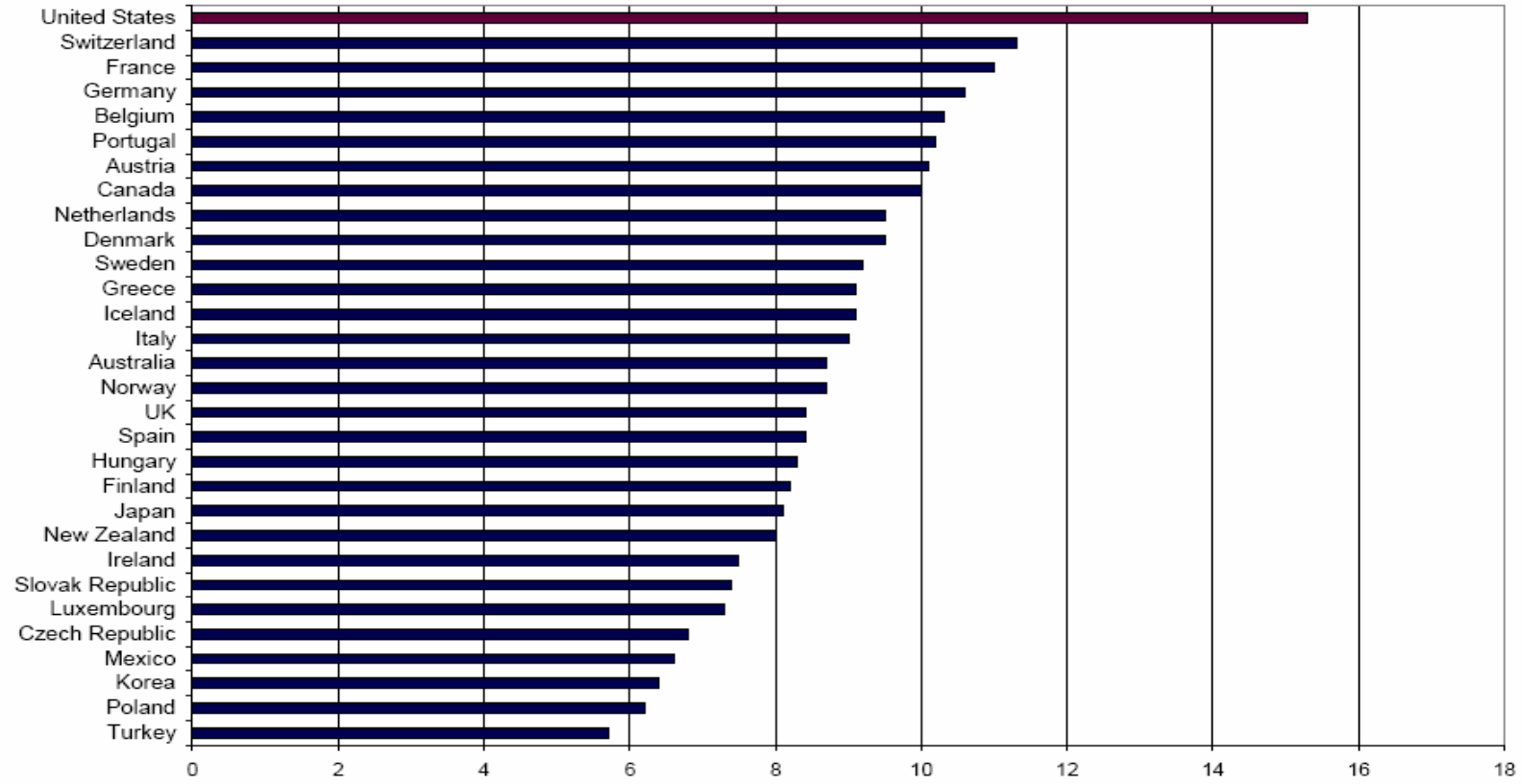
Costs per capita doubled in 10 yrs

Your constituents have ~$4000/person less to spend than they did 10 years ago



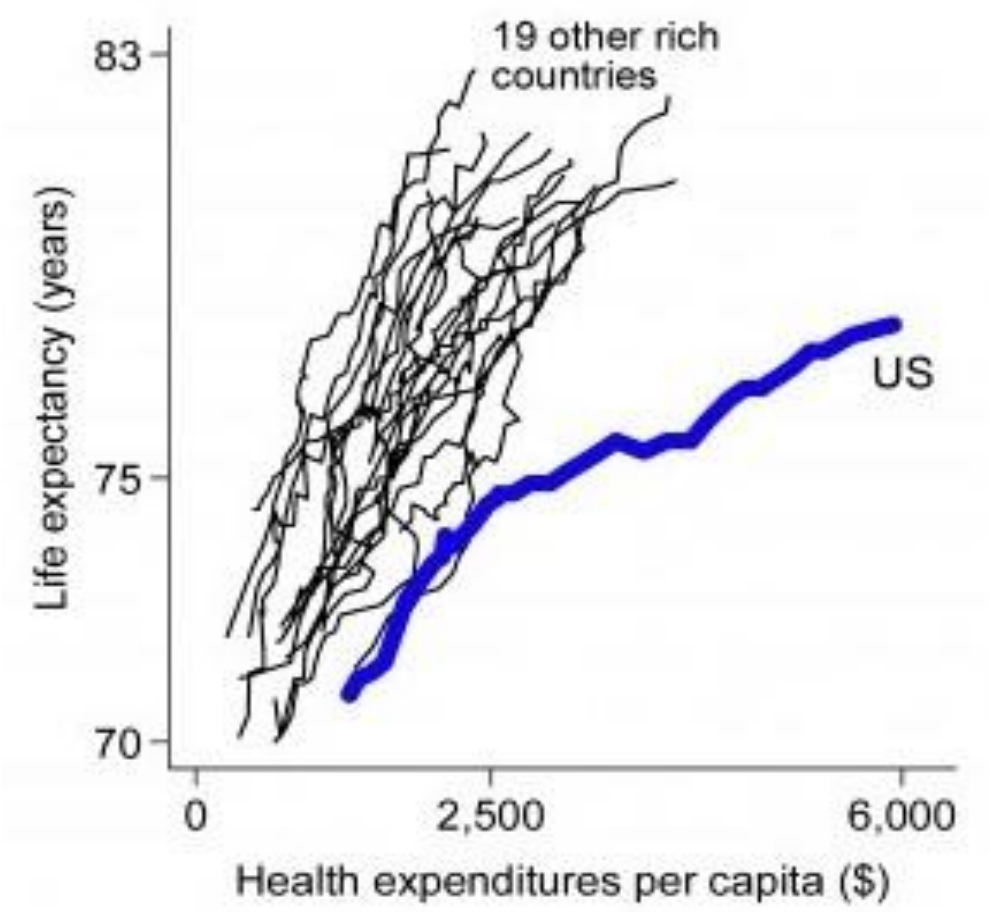
Spending way more than anyone else

Healthcare Spending as % GDP



Source: Organization for Economic Cooperation and Development, OECD Health Data, 2008 (Paris: OECD, 2008).
Note: For countries not reporting 2006 data, data from previous years is substituted.

Is our spending effective?



- When other countries spend more per capita, life expectancy improves
- What's different about the US?

Causes?

- System failures
  - Lack of integration and coordination
    - Duplicates work and decreases efficiency
- Misaligned incentives
  - Rewards work done, not health improvement
    - Result: I get paid more if you have a complication

Responses?

- Government and businesses pay for HC
- Both pay more and don't know what they're getting
- Responses
  - Businesses (high deductible, HC exchange)
    - Shift responsibility to employee
    - Get out of healthcare
  - Government (HIPAA, HITECH, PPACA)
    - Slow growth of payments
    - Require quality reporting and care coordination
- If employers get out of healthcare, only government will be left to fund it

Agenda

- What's wrong with healthcare in the US?
- What would make it better?
- How can you help?

The Triple Aim

"Any healthcare policy should seek to …

1. *Improve population health*
2. *Enhance the patient experience*
3. *Provide it at an appropriate cost."*

Berwick, Health Affairs 2006

Causes?

- ***System failures***
  - Lack of integration and coordination
    - CREATE INTEGRATED PRACTICE UNITS AROUND PATIENT CONDITIONS
- Misaligned incentives
  - Rewards work done, not health improvement
    - REWARD VALUE, NOT VOLUME

System Failures

- Integration and Coordination
  - ***Coordinated care*** across providers
  - Centered around patient convenience
  - Based on consensus protocols
  - Hold each other accountable to standards

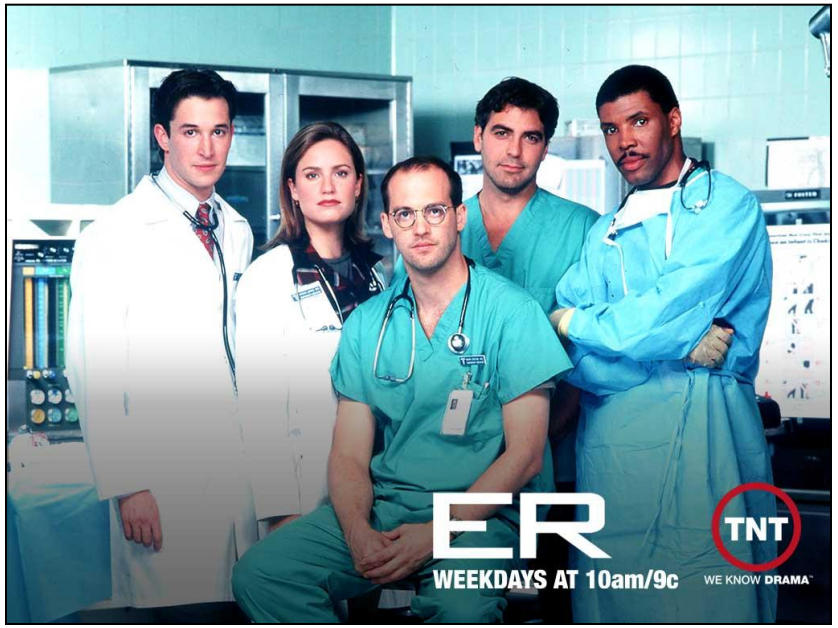
- Solution:
  - Coordinated Care Program for Total Knee Replacement

Coordinated Care Program for Total Knee Replacement

- Surgeon and patient determine need for procedure, then…
  - ***Navigator*** is assigned to patient
  - ***Expectations*** set for patient and family from pre-op to discharge
  - ***Evidence-based protocols*** for all care is agreed upon
  - ***Communication*** between all providers facilitated by navigator
  - ***Follow-up plan*** set beforehand to avoid delays in treatment
  - ***Outcomes measured*** and reported
  - ***Patient, family, care team all engaged in success***

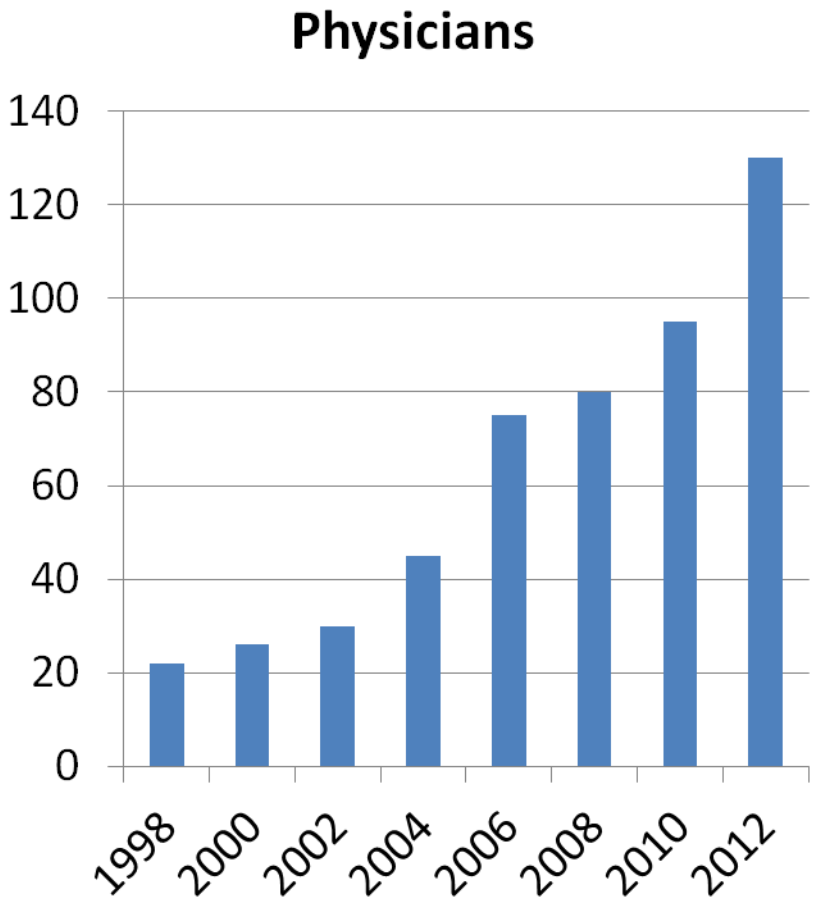
Autonomy vs. Systems

Requires a large cohesive team to successfully provide coordinated care



OrthoCarolina

- Since 1998, we've grown
  - 22 to 121 physicians
  - 6 to 27 offices
  - 150 to 1200 employees
  - "3rd largest HC system in Mecklenburg County"
- Invested millions in infrastructure
  - IT connectivity
  - Electronic health record
  - Digital radiology
  - Business intelligence
  - Facilities



Not just about getting bigger; Must also be efficient and affordable

- In addition to these investments:
  - *Create IT connections between facilities*
  - *Build common transferable health records*
  - *Implement coordinated care transitions*
- We have created alternative care environments to lower the cost of care to our patients
  - *Urgent care instead of ED*
  - *In-office injection suites instead of surgery centers*
  - *ASCs instead of hospital ORs*
  - *Outpatient imaging instead of inpatient*

Not just about getting bigger; Must also be efficient and affordable

- Create alternative care environments
  - Urgent care instead of ED
    - Opening our 7th Orthopedic Urgent Care next month
      - Walk-in appointments all nights and weekends
      - Office visit charge rather than Emergency Dept charge
      - Seen by Orthopedic Surgeon or his Physician Assistant
      - Immediately initiate treatment rather than charge and refer

Not just about getting bigger; Must also be efficient and affordable

- Create alternative care environments
  - In-office injection suites instead of surgery ctrs
    - Office procedure charge for joint or spine injection is a fraction of surgery center charge ***(~65% cheaper)***
    - Enhanced convenience to patient

Not just about getting bigger; Must also be efficient and affordable

- Create alternative care environments
  - ASCs instead of hospital ORs
    - Previously only 40% of outpatient procedures were done in ASCs
    - To benefit our patients, we've now increased to 55%
    - Further shift limited by lack of available ASC OR time
    - Cost to patient can be half as much in a surgery center with the same surgeon and procedure
    - Medicare Payment Advisory Commission states ***Medicare pays 76% more to hospital OP departments than to ASCs***

Not just about getting bigger; Must also be efficient and affordable

- Create alternative care environments
  - Outpatient imaging instead of inpatient
    - Availability of radiology and advanced imaging is critical to efficient and effective orthopedic care
    - Invested in digital radiography throughout western NC sharing Xrays through our PACS (storage system)
    - Utilize one fixed and four mobile MRI units to provide state of the art imaging across western NC
    - ***Hospital imaging frequently costs twice as much as ours***

Integrated Practice Units: Finding opportunities with Hospitals

- Clinical Integration Projects
  - Carolinas Healthcare System
  - Novant Health
  - Lake Norman Regional Medical Center
  - Watauga Medical Center
  - Scotland Memorial Hospital
  - Initiated discussions with 3 others

Causes?

- System failures
  - Lack of integration and coordination
    - CREATE INTEGRATED PRACTICE UNITS AROUND PATIENT CONDITIONS
- ***Misaligned incentives***
  - Rewards work done, not health improvement
    - REWARD VALUE, NOT VOLUME

Shifting from volume to value

- Value = $\frac{\text{Improvement in Pain and/or Function}}{\text{Cost of the Care We Provided}}$

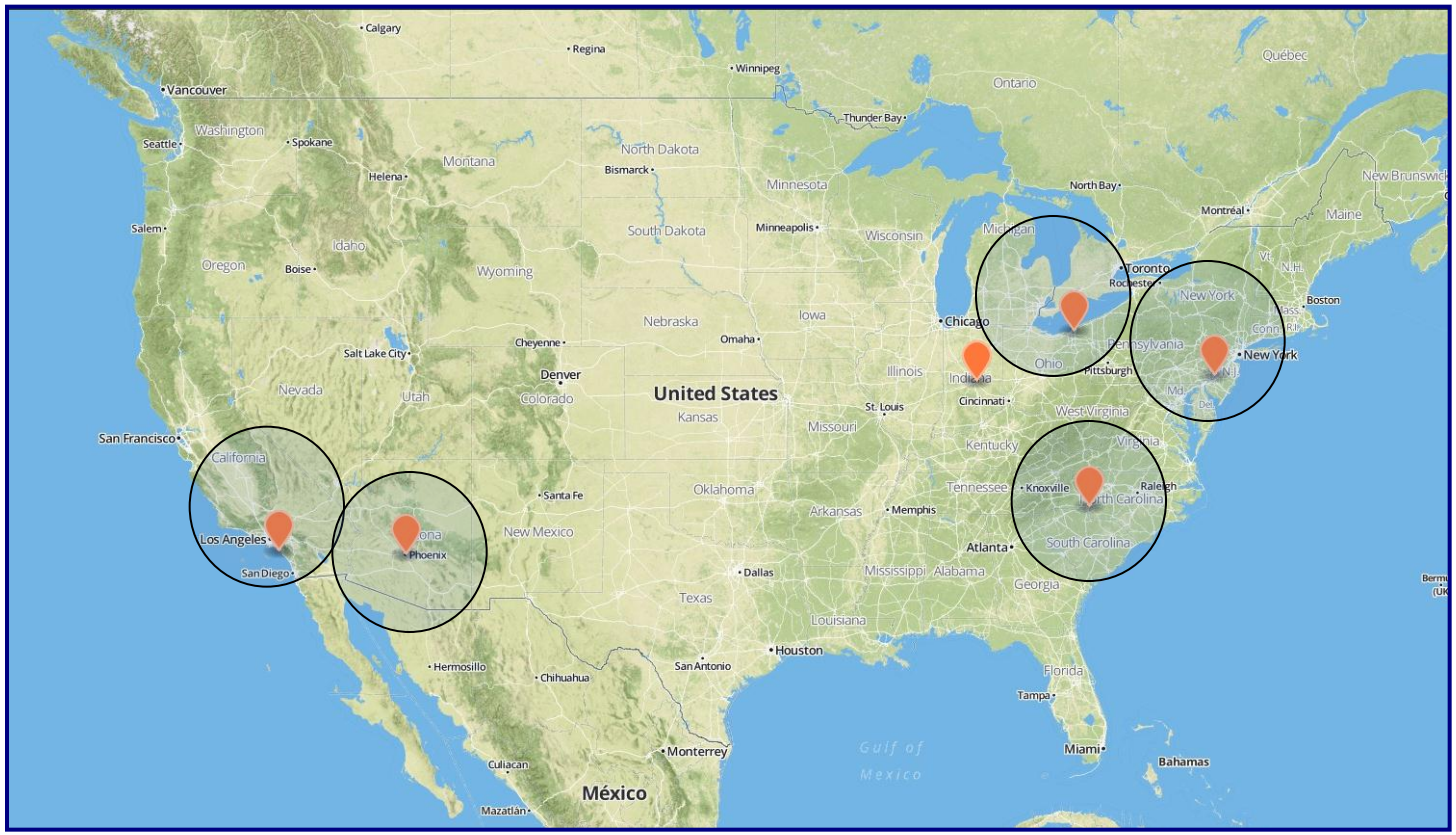
- How do we enhance value?
  - Improve Outcome *and/or*
  - Lower cost

Measure Cost and Outcomes for each patient

- We are collecting data…
  - ***Quality of Life***
  - ***Pain and Functional*** improvements
  - ***Patient Satisfaction***
  - ***Complications***
- Benchmarking against…
  - Each other
  - Other national leaders

National Orthopedic & Spine Alliance

- Founded by OrthoCarolina, Cleveland Clinic, The Rothman Institute, The CORE Institute, OrthoCalifornia in 2013
- Creating national standards for quality outcome reporting and agreement on surgical indications and treatment protocols



Survey Summary

Actions | 1 of 2 | Find Next | 100%

OrthoCarolina

Patient Survey Summary (Ortho, September - 2013)

	Ballantyne	Blakeney	Boone	Concord	Foot & Ankle	Gastonia	Hand Center	Hickory	Hip & Knee	Huntersville	Laurinburg	Matthews	Monroe	Mooresville	Pediatrics	Pineville	Shelby	Spine Center	Sports Center	University	OC
Cleanliness	85.33%	81.58%	59.15%	47.62%	86.02%	87.13%	84.03%	80.65%	86.67%	76.89%	74.68%	84.67%	97.18%	79.80%	67.90%	90.91%	82.61%	84.80%	87.68%	84.50%	**81.07%**
Front Desk	84.30%	81.58%	87.20%	77.94%	77.97%	76.00%	71.01%	77.02%	75.08%	79.47%	78.48%	85.11%	90.71%	62.89%	85.37%	86.58%	80.70%	84.50%	82.60%	72.86%	**80.21%**
Informed of Delays	44.64%	16.67%	21.21%	39.22%	22.89%	16.67%	27.27%	31.33%	29.47%	52.50%	57.14%	32.35%	20.00%	44.44%	71.43%	26.83%	16.13%	36.90%	52.08%	43.90%	**34.98%**
Nursing	85.59%	92.11%	83.95%	81.62%	78.81%	79.80%	75.42%	82.39%	78.39%	78.38%	87.18%	84.80%	92.03%	77.32%	86.42%	83.91%	83.19%	87.38%	86.83%	77.16%	**82.67%**
Radiology	90.48%	85.71%	91.43%	90.23%	82.07%	90.00%	81.82%	92.62%	89.81%	84.87%	86.96%	88.99%	90.12%	78.26%	90.24%	91.35%	91.53%	95.61%	90.29%	92.86%	**89.11%**
Sched Process	64.18%	85.71%	77.42%	82.31%	57.03%	81.82%	74.77%	79.75%	50.00%	70.34%	76.67%	75.47%	80.26%	72.22%	68.00%	78.03%	70.69%	68.94%	60.11%	73.08%	**70.66%**
Scheduler	84.96%	85.71%	88.17%	88.46%	67.19%	85.45%	80.56%	86.71%	69.32%	76.03%	86.67%	84.91%	90.91%	68.52%	78.00%	83.21%	79.31%	83.65%	73.89%	81.25%	**80.70%**
Surg Scheduler	88.10%	90.91%	55.56%	75.00%	60.87%	83.33%	68.63%	90.77%	65.22%	80.00%	95.00%	90.48%	81.48%	61.90%	80.00%	85.19%	47.06%	75.95%	96.55%	75.00%	**78.57%**
Net	**81.23%**	**83.51%**	**76.43%**	**73.50%**	**72.76%**	**79.44%**	**74.72%**	**79.71%**	**73.49%**	**76.22%**	**80.74%**	**82.63%**	**89.22%**	**71.11%**	**78.97%**	**83.76%**	**76.99%**	**81.33%**	**81.55%**	**77.86%**	**78.65%**

Change from previous Month

	Ballantyne	Blakeney	Boone	Concord	Foot & Ankle	Gastonia	Hand Center	Hickory	Hip & Knee	Huntersville	Laurinburg	Matthews	Monroe	Mooresville	Pediatrics	Pineville	Shelby	Spine Center	Sports Center	University	OC
Cleanliness	-3.06%	1.25%	-16.62%	-2.66%	-3.07%	9.10%	3.14%	6.66%	-1.88%	-5.08%	-10.86%	-0.26%	5.67%	-8.28%	-18.46%	0.58%	3.87%	2.44%	1.53%	-0.08%	**-3.06%**
Front Desk	-2.21%	4.91%	-2.63%	0.04%	-3.05%	-2.03%	-0.46%	-1.84%	-6.85%	1.06%	-7.06%	3.23%	8.40%	-24.27%	-5.46%	1.68%	-1.98%	8.78%	1.59%	-5.62%	**-2.21%**
Informed of Delays	-10.04%	-6.41%	-12.69%	15.49%	-11.99%	-16.67%	-7.65%	9.10%	-10.09%	-5.39%	42.86%	5.88%	-13.33%	-25.25%	15.87%	-8.76%	-5.30%	-6.23%	-0.95%	9.90%	**-10.04%**
Nursing	-0.67%	7.89%	-5.87%	3.49%	-2.63%	-1.88%	-2.69%	-1.06%	-5.46%	-5.62%	-4.28%	3.45%	8.59%	-14.35%	0.18%	-0.94%	2.08%	7.24%	-1.13%	-6.83%	**-0.67%**
Radiology	-1.06%	-11.16%	0.00%	3.38%	-1.47%	1.48%	1.41%	1.13%	-2.21%	-5.29%	-9.20%	2.23%	-4.88%	-14.19%	5.50%	-1.28%	-2.41%	6.73%	0.55%	5.36%	**-1.06%**
Sched Process	-10.11%	8.97%	1.59%	2.55%	-8.01%	5.63%	5.86%	6.65%	-8.30%	10.94%	3.69%	0.11%	12.13%	-10.83%	12.83%	11.36%	-1.31%	15.48%	-0.23%	8.69%	**-10.11%**
Scheduler	2.23%	1.99%	-0.16%	8.46%	-6.61%	5.13%	3.12%	5.82%	-2.29%	0.49%	5.59%	0.43%	12.02%	-14.81%	17.66%	-1.59%	3.31%	10.25%	-0.37%	2.48%	**2.23%**
Surg Scheduler	2.38%	19.48%	-39.04%	-1.56%	-6.34%	23.33%	-13.87%	9.52%	-1.45%	11.43%	2.14%	6.89%	12.25%	15.24%	-7.50%	1.85%	9.56%	7.82%	15.78%	7.26%	**2.38%**
Net	**-2.85%**	**4.07%**	**-6.25%**	**2.17%**	**-5.25%**	**2.01%**	**-0.16%**	**2.27%**	**-5.13%**	**-1.06%**	**-2.77%**	**1.83%**	**7.04%**	**-14.60%**	**-0.92%**	**1.30%**	**-0.42%**	**6.82%**	**1.22%**	**0.08%**	

Aligning Incentives

- Fee for service pays each provider separately
  - Typical CLT payment distribution commercial insurers
    - Surgeon 6-8%
    - Anesthesia 3-5%
    - Hospital 78-89%
- By bundling payments together, we can lower overall costs and increase value by reducing waste
  - Providers go ***at risk*** for their performance
  - Providers must manage care for a fixed cost
  - Incentivized to do what enhances outcomes
  - Penalized for complications, waste, poor coordination

Bundled Payment Knee Replacement

- Patients know up front what it will cost
- There's no additional out of pocket risk to patient or employer
- Providers must manage performance
  - More cost-sensitive (supplies, site of service)
  - More evidence based care pathways
  - More careful in pre-operative evaluation
- Providers must report results
  - Public registries
  - Know surgeon/facility track record before surgery

What are patients looking for? Healers and Health

There's more to health than medical care

Patients want improved QOL, low cost, and a good experience

Agenda

- What's wrong with healthcare in the US?
- What would make it better?
- How can you help?

CON Makes it Harder for Us to Achieve the Triple Aim (Cost/Quality/Experience)

- Joint Statements from the Antitrust Division of the U.S. Department of Justice and the Federal Trade Commission

  - **CON limits competition**

    - Competition improves quality and lowers costs of health care
    - Competition drives innovation
      - ASC's were originally created to solve
        - Health Plan demand for lower cost
        - Patient demand for a non-institutional, friendly, convenient setting for surgical care
        - Spurred innovation in minimally invasive surgery and advanced anesthesia
        - Hospitals responded with improved quality and value of their own services
        - ***Positive outcomes for all parties, especially the patient/consumer***

CON Makes it Harder for Us to Achieve the Triple Aim (Cost/Quality/Experience)

- Joint Statements from the Antitrust Division of the U.S. Department of Justice and the Federal Trade Commission

  - **Original reason for CON no longer exists**

    - In 1974 healthcare was paid on a "cost-plus" basis
    - Created incentives for over-investment
    - ***Original Federal law repealed in 1986*** after government and payers no longer reimbursed on a cost-plus basis
    - Numerous studies have shown that "on balance …***CON has no effect or actually increases both hospital spending per capita and total spending per capita***"

CON Makes it Harder for Us to Achieve the Triple Aim (Cost/Quality/Experience)

- Joint Statements from the Antitrust Division of the U.S. Department of Justice and the Federal Trade Commission
  - **CON laws increase costs of filing and appeals**
    - OrthoCarolina Demonstration Project
      - Program sponsored and approved by SHCC
      - Won initial approval
      - 18 month appeal by hospital before second approval
      - Option to appeal further but hospital declined
      - Cost before any capital expense:
        - » Filing fee and consultants **Over $45,000**
        - » Cost of Appeals **Over $300,000**
        - » Time from application to opening **~4 years**

CON Makes it Harder for Us to Achieve the Triple Aim (Cost/Quality/Experience)

- Joint Statements from the Antitrust Division of the U.S. Department of Justice and the Federal Trade Commission
  - **Protecting revenues for incumbents does not justify CON laws**
    - Overpayment beyond market rates to existing facilities creates inefficiencies and does not guarantee provision of charity care
    - More efficient ways to subsidize charity care directly
    - Medicare Payment Advisory Commission, 2006: Specialty hospitals did not undercut financial stability of community hospitals

CON Makes it Harder for Us to Achieve the Triple Aim (Cost/Quality/Experience)

- **Physician Ownership of resources does not lead to overutilization**
  - Physical Therapy
    - Journal of Occupational Rehabilitation (Jan 18, 2013)
    - Paul Beattie *et al* studied differences in utilization of PT based on ownership of facilities
    - Physician-owned PT had lowest utilization of services

	Physician Owned PT	Hospital Owned PT	Therapist Owned PT	Corporate Owned PT
Avg visits/ episode	10.47	10.17	12.18	13.08
Avg units/ episode (determines cost)	42.73	43.27	51.37	66.79

CON Makes it Harder for Us to Achieve the Triple Aim (Cost/Quality/Experience)

- **Physician Ownership of resources does not lead to overutilization**
  - Physical Therapy
    - "Developing Outpatient Therapy Payment Alternatives: 2009 Utilization Report" prepared for CMS Center for Innovation by RTI International research firm in RTP, NC
    - Physician-owned PT had one of the lowest costs of services on average

	Physician Owned PT	Hospital Owned PT	Home Health PT	Therapist Owned PT
Avg cost/ episode	$591	$562	$817	$985

CON Makes it Harder for Us to Achieve the Triple Aim (Cost/Quality/Experience)

- **Physician Ownership of resources does not lead to overutilization**
  - MRI
    - AIM Specialty Health Study on Self-Referral Patterns
    - National Benefits Manager making determinations on appropriateness of utilization for imaging, drugs, etc.
    - 2013 Study to evaluate the effects of self-referral and specialty in five different states
    - **Self-referring physicians ordered fewer studies**

Orthopedic Ordering Practice

When appropriateness criteria programs are applied, analysis shows little variation in ordering practice between self-referral and non-self-referral providers in the same state

High-Tech Imaging Ordering Practice – Orthopedic Surgery (2012)

Anthem Central		Overall			Self Referral			Not Self Referral		
State	% Self Referral	# Requested Exams	Exams per Patient	Exams per Visit	# Requested Exams	Exams per Patient	Exams per Visit	# Requested Exams	Exams per Patient	Exams per Visit
IN	23%	2,277	1.16	1.06	534	1.10	1.03	1,743	1.19	1.07
KY	38%	1,346	1.16	1.08	505	1.12	1.07	841	1.18	1.08
					27	1.19	1.08	342	1.20	1.08
					267	1.14	1.05	3,710	1.16	1.07
					0	1.17	1.09	355	1.18	1.06

Self-referrers in all specialties ordered fewer exams/patient in each state examined

- From AIM Preauthorization Data, all authorizations in 2012 for IN, KY, MO, OH, and WI
- Commercial Average Membership of 2.5M on 2,000 orthopedic surgeons

Ordering Practice

When appropriateness criteria programs are applied, Orthopedic Surgery usage rate for high-tech imaging is in line with other specialties

High-Tech Imaging Ordering Practice – Anthem Central Region (2012)

		Overall			Self Referral			Not Self Referral		
Specialty	**% Self Referral**	**# Requested Exams**	**Exams per Patient**	**Exams per Visit**	**# Requested Exams**	**Exams per Patient**	**Exams per Visit**	**# Requested Exams**	**Exams per Patient**	**Exams per Visit**
Cardiology	46%	38,647	1.26	1.14	17,707	1.21	1.13	20,940	1.28	1.15
Orthopedic Surgery	**26%**	**9,494**	**1.16**	**1.07**	**2,503**	**1.13**	**1.06**	**6,991**	**1.17**	**1.07**
Hem/Onc	25%	21,327	2.54	1.47	5,346	2.45	1.50	15,981	2.57	1.47
					874	1.22	1.07	38,799	1.24	1.08
					700	1.46	1.34	7,430	1.44	1.26
					547	**1.34**	**1.16**	**120,008**	**1.34**	**1.14**

Orthopedic self-referrers ordered fewer exams per patient

- From AIM Preauthorization Data, all authorizations in 2012 for IN, KY, MO, OH, and WI
- Commercial Average Membership of 2.5M on 30,000 ordering providers

Findings of AIM Specialty Health Study

Self Referral Observations

1.27% of High Tech Imaging studies are ordered by self referral physician
2.Cardiology remains the specialty with most equipment ownership (46% of all studies were requested by self referral physicians).
3.Self-Referral Groups are better utilizers. Except for Oncology and Neurology, Non-self referral physicians order more studies per patient than self referral.

Orthopedic Specialty Observations

1.26% of High Tech Imaging studies are ordered by self referral physician (In-line with overall average)
2.Self-Referral Groups are better utilizers. Non self referral physicians order more studies per patient than self referral across all geographies. 1.17 vs. 1.13
3.Under appropriateness criteria programs, ***self referral physicians tend to be better informed on appropriate use of imaging technology and order less frequently compared to peer groups.***

OC Commitments to NC

- Physician-owned and led
  - Strong active governance
  - Transparent and Accountable
  - Efficient mechanics (business office and operations)
  - Customer service focus
  - Community Stewardship
  - Data driven decision-making

- Expectations of our physicians:

  Do the right thing for the patient, community and profession

Conclusions

- Physicians can best determine how to spend the healthcare dollar
- Physicians are responsible stewards of healthcare resources
- Patients in NC pay too much for healthcare because access to Ambulatory Surgery Centers and advanced imaging is limited
- Patients have demonstrably better care experiences in outpatient settings such as ASCs and physician-owned MRI suites
- We are trying to achieve the Triple Aim in North Carolina
  - Improved health
  - Better Patient Experience
  - Lower Cost

Please give us the tools to help our patients and to lower costs to the government and to NC employers who provide healthcare