

Integral improvement of the orthopedic chain


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A decorative graphic consisting of several concentric circles, resembling ripples in water, is located in the bottom right corner of the slide. The circles are light blue and have a subtle gradient.

Problem?

- healthcare costs increase year by year
 - people 45+ have more healthcare needs
 - people 45+ take a big share of costs
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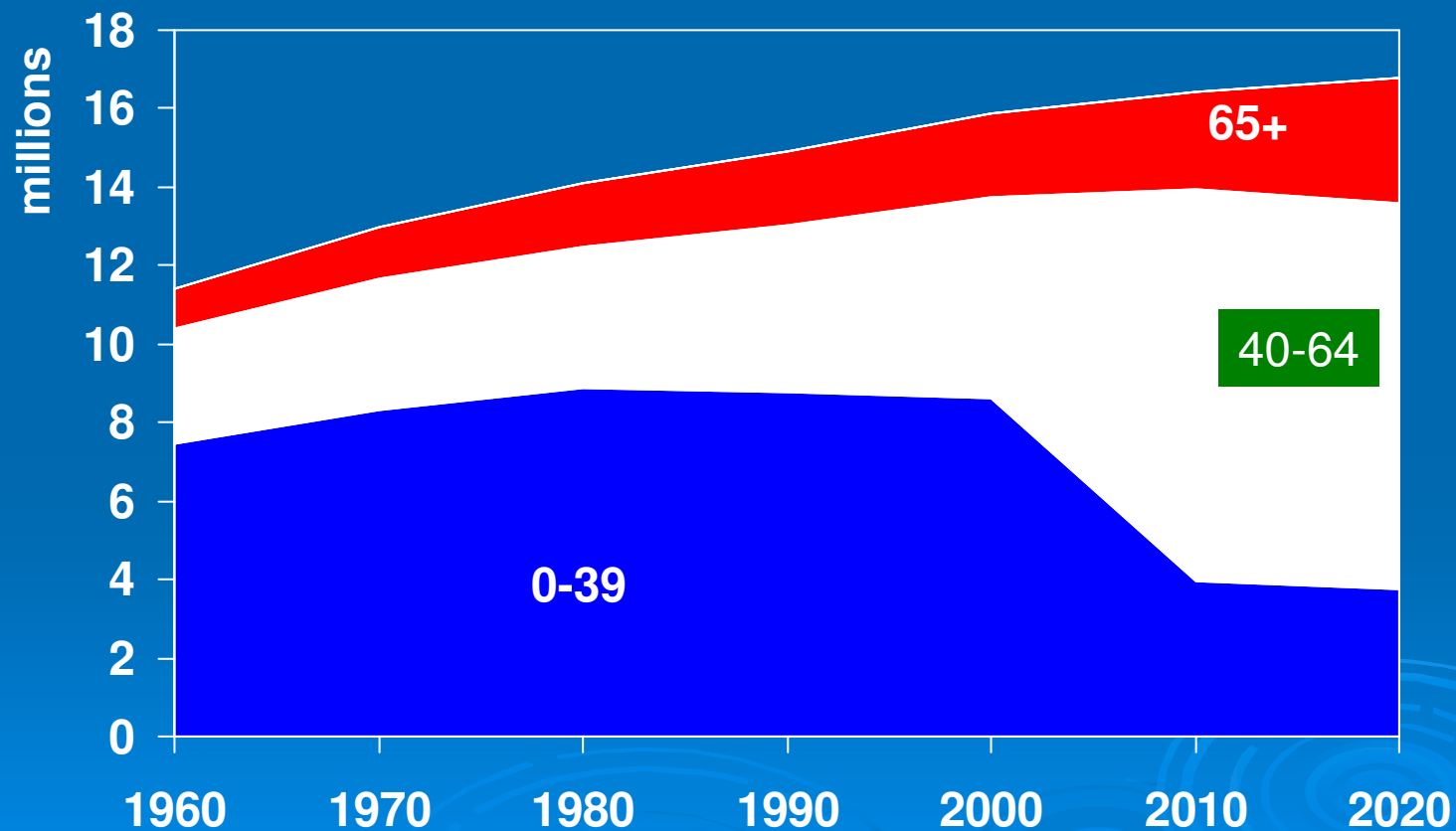
Problem?

- musculoskeletal dysfunction increases with age
- musculoskeletal dysfunction takes 6% of healthcare costs (2000)
- musculoskeletal dysfunction takes 26% of costs related to unfitness for labor (2000)

Problem?

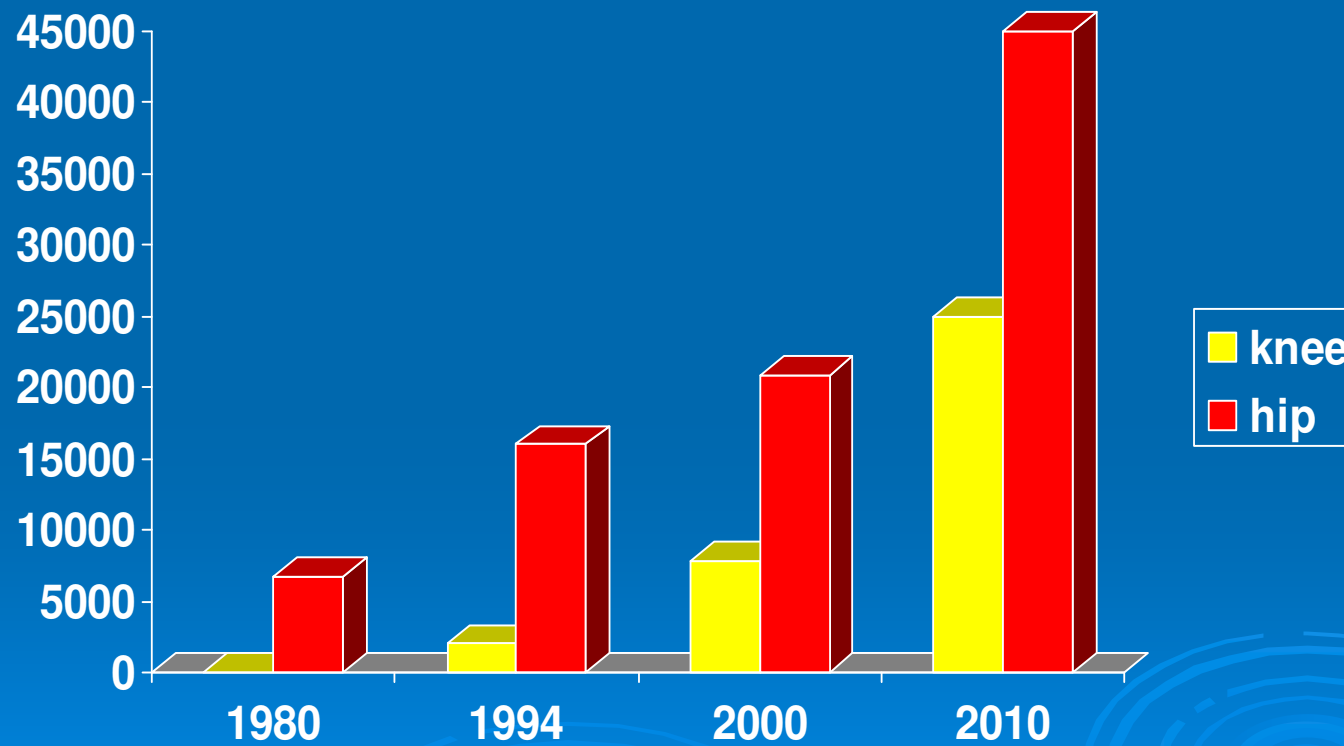
- 15% of hospital admissions is due to musculoskeletal dysfunction (2000)
- most admissions are for joint surgery

Joint replacement: facts population



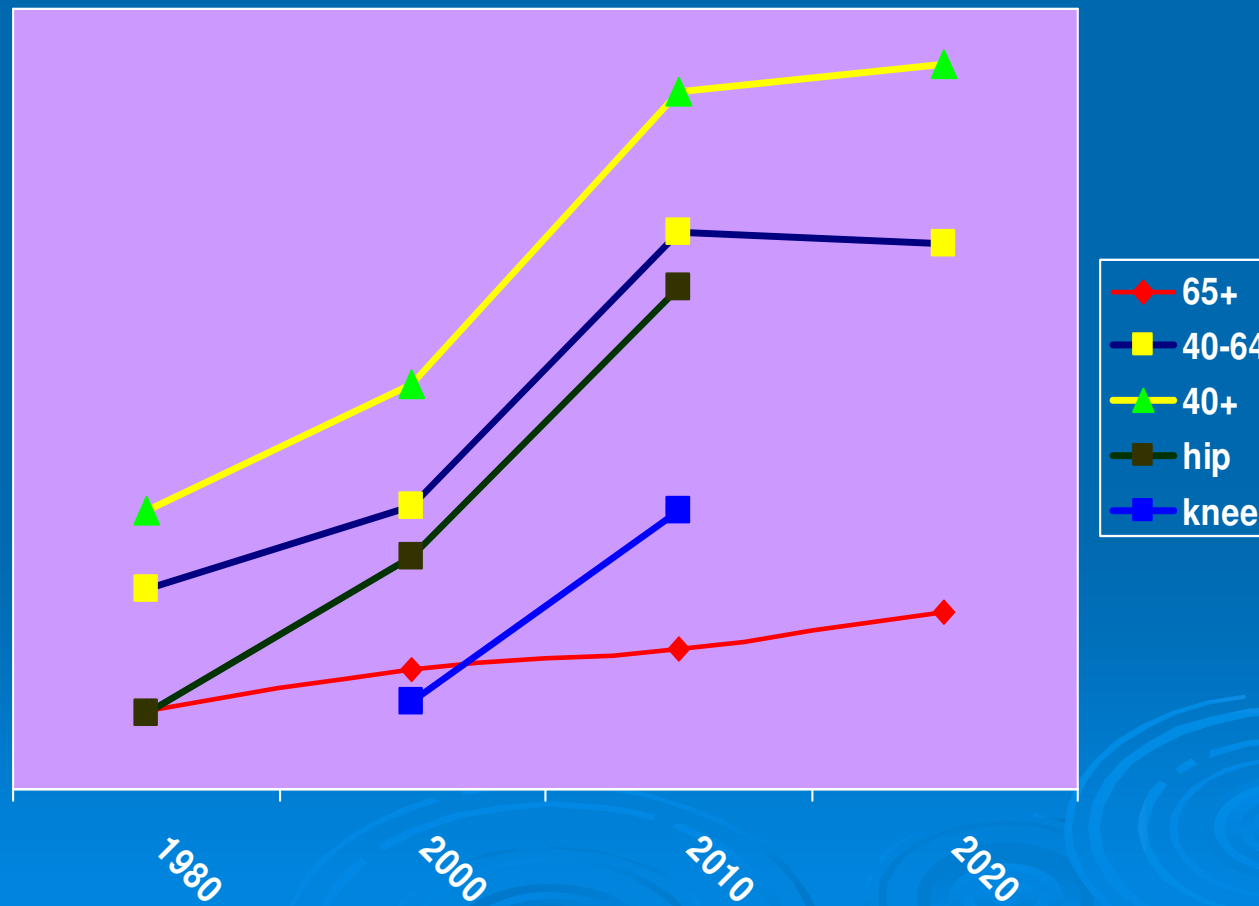
Joint replacement: facts

surgical interventions



Joint replacement: facts

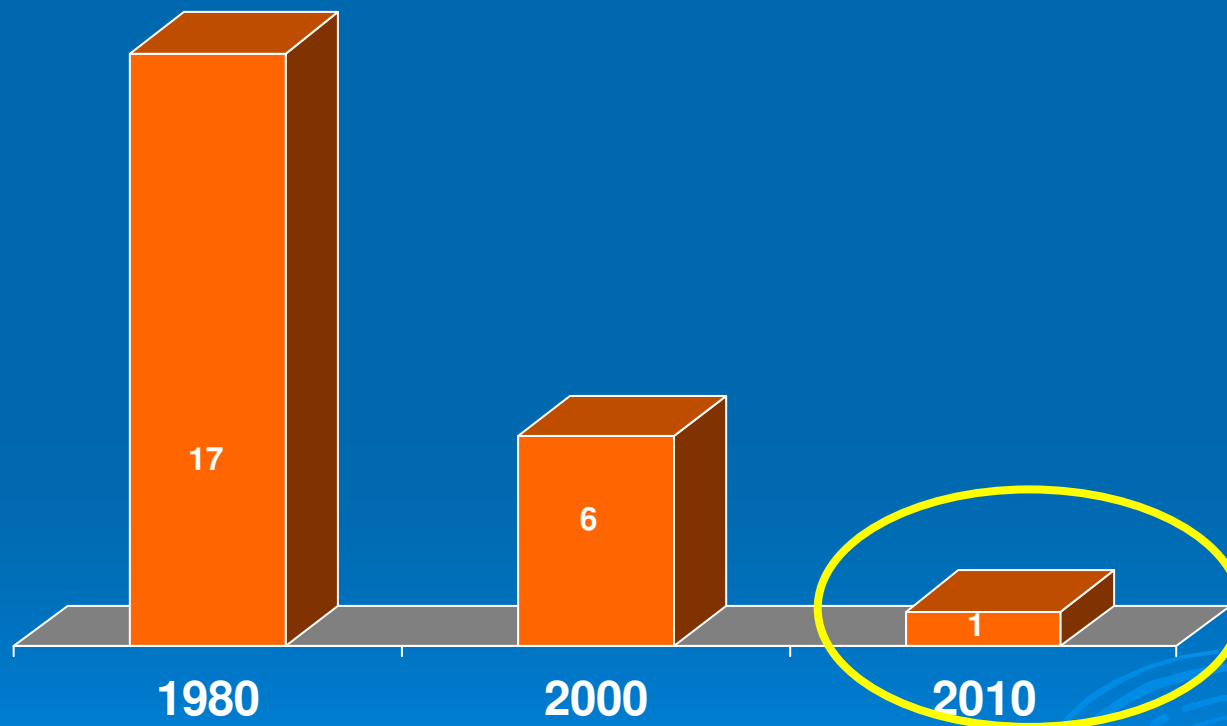
population and interventions



Surgical procedure and anesthesiology

- minimal invasive, minimal damage
- computer assistance
- spinal block
- adequate postop. pain treatment

Mean hospital stay (days)



New technology

more clients

more surgical procedures

better rehab

less complications

but

more O.T. time needed

more inpatients

more macro costs ?

What to do

orthopedic chain redesign



Parties involved

- general practitioner
- orthopedic surgeon
- hospital
- rehabilitation home
- homecare organization
- care indication committee
- physiotherapist
- health care insurance company

Parties inside hospital

- orthopedic surgeon
- anesthesiologist
- management O.T.
- management nursing department
- POS-department
- ambulatory department
- admission/discharge department
- physiotherapy
- occupational therapy
- department of patient information

Operating theatre

- rigid planning
 - 4 or more patients a day
 - no delay
- clear logistics
- sufficient instrument sets
- interested orthopedic surgeons
- interested anesthesiology department

Finance

- efficiency leads to less costs per patient
- hospital care paid by insurance company
- rehab/home care paid through Exceptional Medical Expenses Act
- less late complications through fast recovery
- fast return to normal activities (and work)

Is there a optimum?

➤ who knows?

➤ who cares?



Future


- orthopedic center
- 2000 or more procedures a year
- physician assistant = surgeon
- hospital stay one day
- rehab program max. two weeks
- back to “normal” in two months

Obstacles

- new concept
- clients want hospital in backyard
- insurance companies conservative
- hospitals don't think in terms of market
- no simulation model available
- self-interest vs. cooperation

Decisions asked

1. hospital


- orthopedic chain introduction?
 - integral?
 - only in-hospital?
 - effect on costs?
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- The bottom right corner of the slide features a decorative graphic of several concentric circles, resembling ripples on water, rendered in a lighter shade of blue than the background.

Decisions asked

2. insurance company

- which hospital to contract?
- partnership?
- willingness to reroute patients?
- put pressure on market to start center?

Hospital decisions based upon:

- attitude orthopedic surgeons
 - in-house resistance
 - time and effort involved
 - attitude external parties
 - pressure on prices (market effect?)
 - cost-price
 - cash cow rumor
- 

Dream or reality?

package deal

=


one price for whole chain

+


one contractor for whole chain



Portfoliomanagement

- orthopedic chain only an example
 - more chains possible (CVA, diabetes, etc.)
 - how many chains can one hospital manage
 - how to compose a portfolio
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What do we need?

- volume and cost model
 - logistic model
 - portfolio-composition model
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Final conclusion


I

Care organized in so called chains leads to more patients treated for the same money, to faster recovery, more patient satisfaction, and better understanding between parties involved.

Final conclusion

II

Models to support decision making in organizing chains (volume, cost, logistics) and portfolio are needed.

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