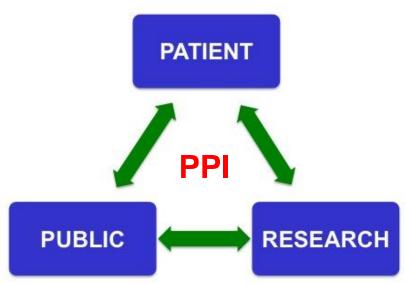


# A ROAD MAP TO INVOLVING PATIENTS IN YOUR RESEARCH



#### Tony Miles Department of Mechanical Engineering



# CENTRE FOR ORTHOPAEDIC BIOMECHANICS



University of Bath and University of Bristol

Affiliated to:

Institute of Orthopaedics and Musculo-Skeletal Science, UCL

Princess Elizabeth Orthopaedic Centre, Exeter







#### **RESEARCH FOCUS**

#### **ENGINEERING SCIENCE - CLINICAL ORTHOPAEDICS**

To address the physical interface between engineering design, mechanics and materials with the biological materials and structures of the musculo-skeletal system



# PATIENT PUBLIC INVOLVEMENT IN HEALTHCARE



# GOOGLE "patient and public involvement in healthcare" 19,300,000 hits!! LET ME THROUGH ..... I'M A MEMBER OF THE PUBLIC!

BMJ. 2004 January 17; 328(7432): 159–161





#### What is patient and public involvement?

- Gives people the chance to:
  - Influence their own care and treatment
  - Have a say in the way services are planned and run
  - Help bring about improvements to the way care is provided

#### Who are patients and the public?

- People who use, or have used, health or social care services.
- Carers and families.
- Healthcare professionals.
- Members of the general public.
- Organisations which represent users of NHS services and community groups.

#### We are all actual (or potential) patients!

http://www.bma.org.uk/patients\_public/toolkitforpatientandpublicinvolvement.jsp





#### Why should patients be involved?

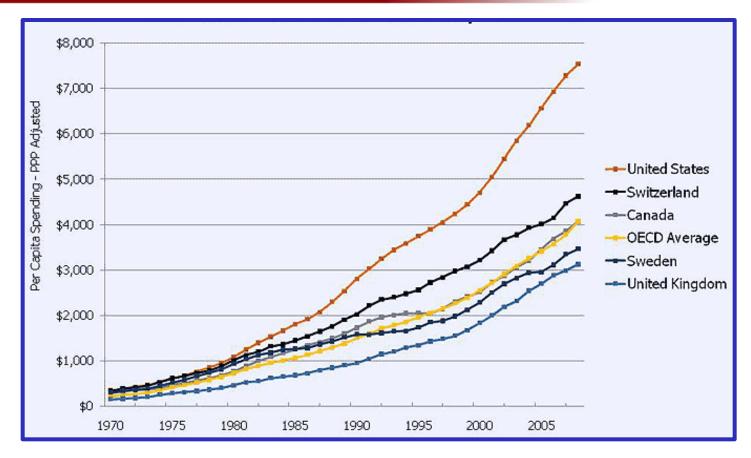
- Patients are central to everything we do
- To improve clinical care and the overall experience patients receive
- Listening to patients will help deliver a better service
- Involving patients in their own care will help to reduce health inequalities
- Patients and the public should be involved in the planning, monitoring and development of health services

http://www.bma.org.uk/patients\_public/toolkitforpatientandpublicinvolvement.jsp



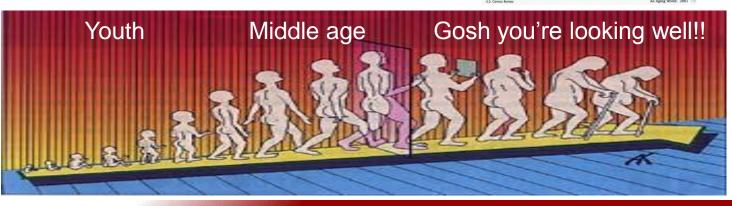
# **HEALTHCARE SPENDING/CAPITA**

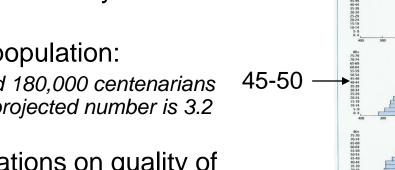




The rise in costs of healthcare delivery is unrelenting and ...... unsustainable in its present form!







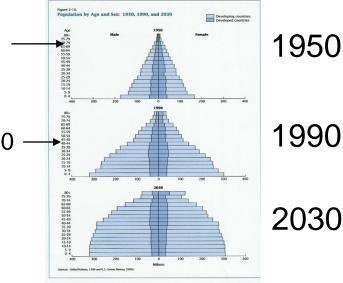
80 +

# Healthcare is worlds largest industry

- USA 16.2% GDP, Germany 11.6% UK 9.6%
- Increasing aging population:
  - In 2000, estimated 180,000 centenarians in world by 2050 projected number is 3.2 million!
- Increasing expectations on quality of life

# **ECONOMICS OF HEALTHCARE**





1950

2030



#### **MILLENIUM CHALLENGE**



# **Millennium patient**





# activity profile





# Increasing expectations!



# **NEW PATIENTS : NEW CHALLENGES**



- Patient demographics are changing
- Today's patients are:
  - 20% heavier
  - More physically active
  - More likely to be female
  - 25% longer life expectancy
  - Web based educated rather than peer review
- Expectations are different





"More and more patients are going to the Internet for medical advice. To keep my practice going, I changed my name to Dr. Google."



# **FUTURE DIRECTIONS**



#### PATIENTS

- More personal responsibility
- Life style
- Diet
- Personal care maintenance
  PUBLIC
- Provide adequate healthcare resources
- Health monitoring
- Provide appropriate education
  - **Team Approach**



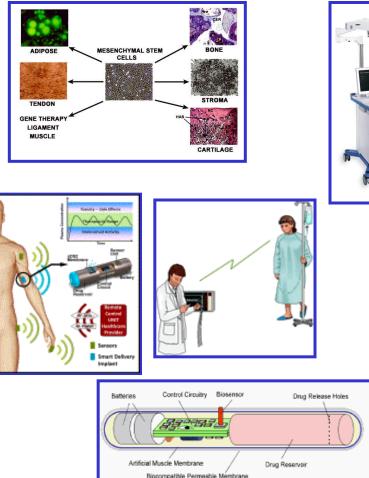




# **FUTURE DIRECTIONS**

#### **RESEARCH OPPORTUNITIES**

- New and smart technologies
- Early diagnosis (and early intervention?)
- Provide responsible information
- Involve clinicians in research
- Educate patients and healthcare providers
- Demonstrate cost benefits
- Influence government and healthcare providers









# **PUBLIC LECTURE**



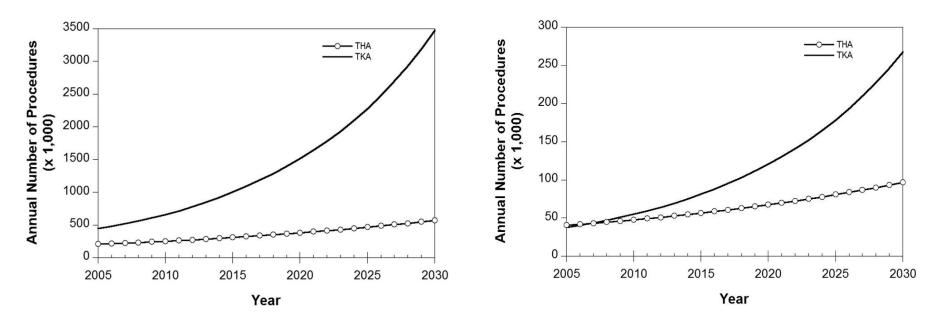






# EXAMPLE OF GROWTH IN JOINT REPLACEMENT 2005-2030 USA





#### **Primary Joint Replacement**

#### **Revision Joint Replacement**

- Steady growth in primary hip replacement and *exponential* (sevenfold) growth in knee replacement
- Significant increases predicted in revision hip and knee replacement



Kurtz et al JBJS: 89A:780-785, (2007)

# VICTORIA'S STORY







# **CHOOSE YOUR SURGEON!**





# Ultimately the quality of the surgery is the biggest determinant of the outcome!



# **PROFESSOR IAN LEARMONTH**







#### **BEFORE SURGERY**





What I looked like before my surgery my hip joints were near my waist!



#### **AFTER SURGERY!**





2 inches taller!

#### QUOTE FROM PROF IAN LEARMONTH

"Surgery contributes only in part to a successful outcome. The contribution of nurses, physiotherapists and occupational therapists cannot be underestimated. <u>Probably the most important factor</u> <u>determining a good outcome is the mental</u> <u>strength, resilience, determination and</u> <u>commitment of the patient. Victoria has all</u> <u>of these.</u>

It is with humility that I reflect on what a great privilege it is to contribute to relieving pain and restoring function in a young woman in the prime of her life".







The Patient the Researcher & the Surgeon



# SUMMARY



# CHALLENGES

- Unsustainable growth in healthcare expenditure
  - taxation, private health insurance
- Changing demographics of patients
  - fitter, bigger, increased life expectancy
- Political and Company led agendas
  - performance targets, league tables, misleading advertising etc
- Dramatic rise in patient demands/expectations
  - lifestyle choices, activity levels, lifespan etc

# OPPORTUNITIES Patient Public Involvement Team approach

- Education and information
- Better informed research agendas



#### **ENJOY THE DAY!**



