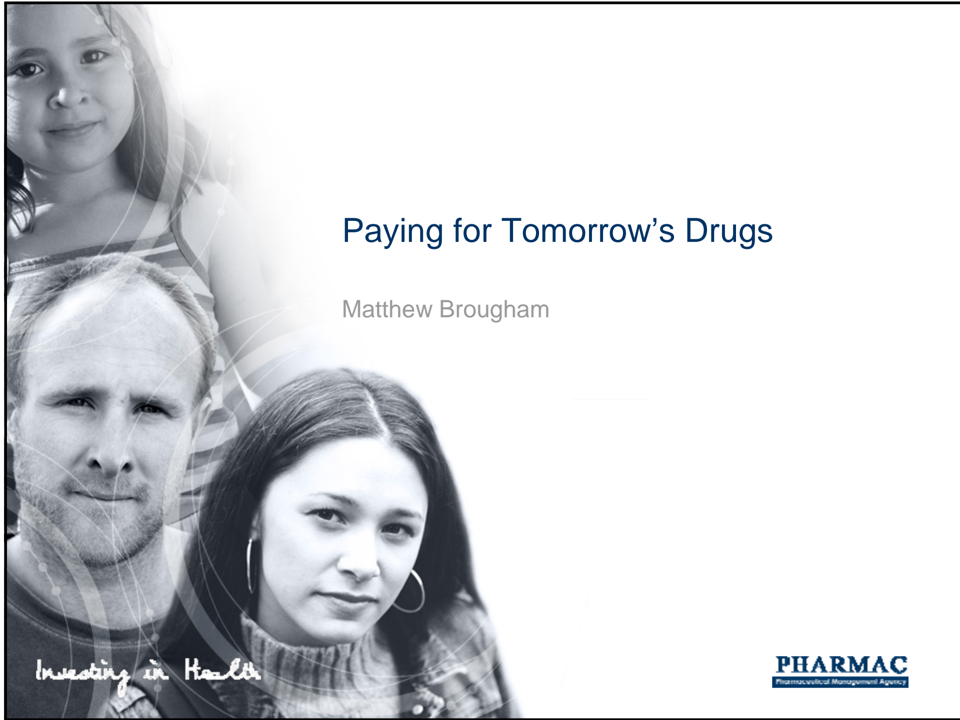
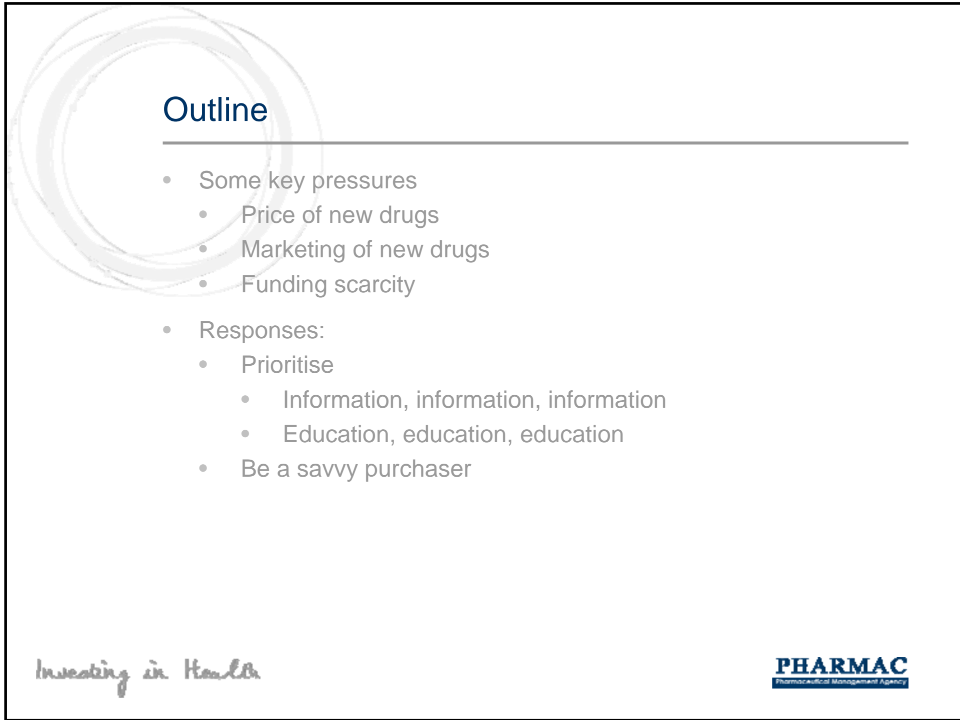

Paying for Tomorrow's Drugs
Matthew Brougham
Investing in Health
PHARMAC
Pharmaceutical Management Agency


Outline
Some key pressures
Price of new drugs
Marketing of new drugs
Funding scarcity
Responses:
Prioritise
Information, information, information
Education, education, education
Be a savvy purchaser
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Prices

Pharmaceutical	Indication	Cost ($NZ) (per patient per annum)
Growth hormone	Short stature in children	$20,000
Imatinib	Chronic myeloid leukemia	$58,000
Peginterferon alpha 2a	Hepatitis C	$23,000
Enfurvitide	Salvage therapy in HIV	$28,000
Octreotide	Acromegaly	$30,000
Trastuzumab	Adjuvant BC	$70,000 (not funded)

Prices

- Strategy is simple - divide US$1 billion by expected annual use

  "As we look at Avastin and Herceptin pricing, right now the health economics hold up, and therefore I don't see any reason to be touching them," said William M. Burns, the chief executive of Roche's pharmaceutical division and a member of Genentech's board. "The pressure on society to use strong and good products is there."

- Slew of new cancer drugs on horizon – all have fairly small patient populations and used for shortish duration
  - Avastin – breast cancer
  - Tykerb – breast cancer
  - It is currently postulated that these two will be added to the Herceptin treatment regimen

  - You do the maths.

The Hype

- Herceptin probably a defining moment in marketing history
- “In 1991, I didn't know... we would cure breast cancer... in 2005, I'm convinced we have” (Jo Anne Zujewski of the US National Cancer Institute)
- “The results are simply stunning… This observation suggests a dramatic and perhaps permanent perturbation of the natural history of the disease, maybe even a cure.” “Clearly, the results reported in this issue of the Journal are not evolutionary but revolutionary” (NEJM editorial by Hortobagyi, 2005)
- **Disease recurrence halved!**
- **My chance of living is doubled!**
- **This is a life saving drug!**

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The Data

- HERA one year follow up data:
  - For every 100 women taking Herceptin, 8 derive benefit 1 year later (a HR of 0.54 – 46% reduction in disease recurrence or death)
- HERA two year follow up data:
  - For every 100 women taking Herceptin, 6 derive benefit 2 years later (a HR of 0.64 – 36% reduction in disease recurrence or death)
- HERA two year follow up data:
  - For every 100 women taking Herceptin, 3 more are alive after 2 years.

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The strategy

- Get the patient group to do your lobbying for you
  - BCAC
  - Herceptin Heroes
- No evidence of funding flows here in NZ but:
  - “Cancer United, which is due to be launched with a fanfare in Brussels tomorrow, is being presented as a pioneering effort by a coalition of doctors, nurses and patients to push for equal access to cancer care across the EU. However, the campaign is being entirely funded by Roche, the maker of Herceptin and Avastin.” (Source: Guardian 18 Oct 06)
- Very effective:
  - Herceptin funded in 24 OECD countries prior to publishing of HERA 3 year follow up data (most funded on the basis of HERA 1 year follow up data)

Funds will remain scarce!

For evidence, witness this conference.

Prioritise!

JDI!

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Information, Information

- Trial data
  - Most developed for registration purposes
  - Need better comparative data for funding decisions
  - Wont happen without funders internationally agreeing data standards or, funding trials themselves
- Evaluation
  - Who has the worst health outcomes?
  - What programmes reach these populations?
  - What programmes make a difference?

While making better use of the current medicine chest may appear to offer enormous health gains, making better use of it may be more costly to implement than simply adding things to it.

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And Information!

- Dissemination
  - Gotta find ways to cut through the hype
  - To be able to prioritise and justify withholding resources from one patient group in favour of another, the public has to understand and have information on the differences between
    - relative and absolute risk reductions
    - uncertainty and risk
    - cost effectiveness and cost

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Education, education, education!

- General education - Best predictor of health
- Specific education – ability to understand risk statistics
- Training – prioritisation processes are information hungry and require highly skilled analysts to run them.

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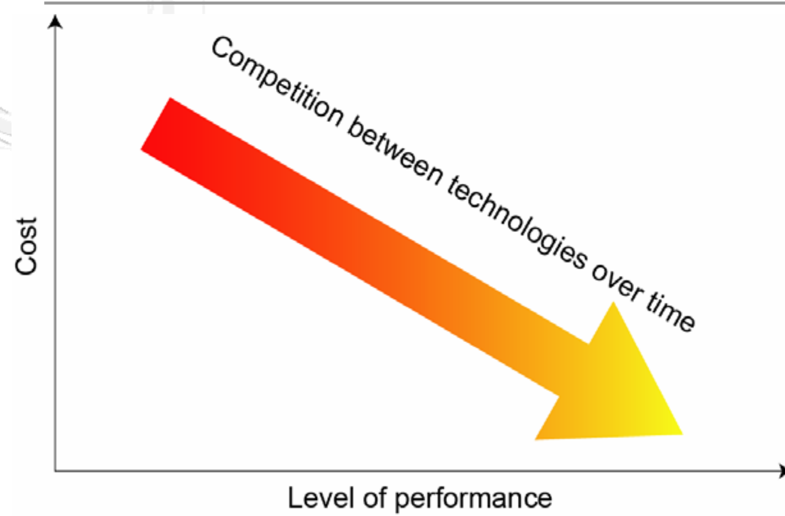
The impact of savvy purchasing



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For example

- Computing
  - HP 9830 (1972) – 0.003 GHz, 0.00003 GB, $29,000
  - HP Dx2200 (2007) – 3.2 GHz, 80 GB, $380
  - 1200 times more powerful, 1/75th the price
- Mobile phones
  - Motorola DynaTAC8000X (1984) – 907g, $9,300
  - Motorola RAZR V3 (2007) – 95g, camera, text, games, $350
  - 1/10th the weight, many more features, 1/25th the cost

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By comparison

Oncology

- For drugs available in 1996
  Total cost: $500
  Expected survival: 11 months
- For drugs available in 2006
  Total cost: $250,000
  Expected survival: 24 months

Source: Leonard Saltz, Memorial Sloan-Kettering Cancer Center

2.2 x the benefit for 500 x the cost!