Risk Communication in the 21st Century

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In this talk I will:

- Provide a definition of Risk perception and communication and put it in context with examples
- And...if time permits we will also...
- Describe how we in Europe have moved from an old consensus model to a new more transparent deliberative model of regulation
- Summarise some of the teething problems associated with this new model
- Describe what may happen with the new model of regulation over a 5-10 year period
- Finally, offer some possible solutions to the teething problems
Risk perception 1

- Importance of heuristics and biases (Kahneman and Tversky)
- Anchoring effect;
- Simplifying heuristic;
- Availability heuristic;
- Understanding base rates;
- Hindsight bias
Introduction to Risk perception 2:

- Work of Kahneman and Tversky influenced others: Fischhoff, Slovic, Lichtenstein

- People viewed risks differently:
  - Natural – Technological
  - Voluntary – Involuntary
  - Familiar – Non Familiar
  - Control – Non Control
  - High Frequency/Low Consequence Risk VS Low Frequency/High Consequence Risk
  - Female - Male
Based on these findings, regulators and industry took the view that one should develop risk communication programmes:

- Build nuclear power plants
- Site nuclear waste facilities
- Build waste incinerators
- Convince publics that certain foods are safe
Introduction to Risk Communication:

Three risk communications strategies put forward:

- Top-down
- Dialogue
- Bottom-up
Introduction to Risk Communication:

- Risk communication still difficult to do!
  - Social / Amplifications / Attenuations
  - Narrative
  - Deliberation
  - Optimistic bias
  - Trust / No trust
Introduction to Risk Communication:

Over the years, risk communication efforts have experienced both successes and failures:

**Failures**
- Swedish (2002) acrylamide scare
- Shell – Brent Spar oil storage buoy
- US Dept of Energy – siting nuclear waste storage facility

**Successes**
- UK – FSA building trust post-BSE
- Johnson & Johnson – Tylenol scare
- Sweden-EON – Barseback nuclear power plant incident
European’s have had their fair share of regulatory “scandals”, emanating both from real or perceived health issues:

- Dioxins in Belgian chicken feed
- Tainted blood in France
- Mad Cow disease in UK and elsewhere
- Foot and Mouth Disease
- The UK MMR fiasco

Led to public distrust towards policy makers
Led to a change in the making of regulation from:

* Old “consensus” model:

- **Policymakers and industry** met behind closed doors and made regulatory decisions.
- **Elitist in nature** because meetings involved heads of industry, senior representatives from unions, etc.
- **Scientists** had important role to play outlining the pros and cons of regulatory actions for elites.
- **Citizen and stakeholder groups** rarely consulted.
To a new model based on:

- Greater public and stakeholder participation
- Greater consideration for environmental and social values
- Greater transparency in regulatory strategies and decisions
- More accountability of the regulator
- Greater use of precaution
  - The role of Science is downplayed, as scientific results are increasingly under scrutiny - scientists seen as just another stakeholder
  - The role of Media is enhanced

Distrust of “old” regulators = rise of “new” regulators
A number of teething problems

Greater public and stakeholder participation

- Self selection process
  - GM Nation?
  - North Black Forest (3.5% participated)

Involving stakeholders can lead to greater public trust

- Stakeholders are also listened to
- Feel ownership of the outcome

YET involving stakeholders can lead to decrease in public trust

- NGOs may have separate agendas
  - Swedish Chemical Inspectorate example
A number of teething problems (cont.)

Open and Transparent Regulatory Practices

- Seen as a need, as many regulatory scandals are caused by lack of transparency

  - However, transparency can also lead to:
    - Outsourcing of risk communication
    - Public having to make their own decisions
Transparency leads to policy vacuums (old days there was a consensus)

- Regulators are slow off their feet (fire fighting)

However, transparency can also lead to:

- NGOs issue managers
- Transparency leads to scientific pluralism
New model: use of the precautionary principle and growth of risk aversion

- New scandal around the corner - better safe than sorry
- In some cases, over regulation prevails
  Commission's decision to ban imports of ground nuts
  Leads to problems associated with risk-risk paradigm
Role of Science

Should scientists be just another stakeholder?

- Demotion of science caused by past scandals e.g. BSE

Policy makers in the past have not adequately taken into account lay knowledge;

Yet:

- By not focusing on the scientific dimension sufficiently:
  - Manufactured uncertainty
  - MMR scare
  - Ghost ship debate
  - Farmed salmon scare
The “rise” of the new regulators

Aspartame case: Ramazzini Foundation (RF) July 2005 press conference noting that aspartame causes cancer in rats

- RF refused to share data with EFSA
  - Amplified the scare
    - Continued press conferences
    - Press releases
    - Interviews with the media

- Media Vacuum Occurs
  - Secondary amplification
    - Campaign groups
    - Activist journalists

- EFSA May 06 holds press conference
  - Research not peer reviewed
  - No dose response relationship aspartame-cancer
  - Rats may have been ill to begin with
Aspartame (cont.)

**Outcome: "un-ethical" amplification of a risk**
- Negatively impacted perceptions of aspartame among media, stakeholders, and eventually consumers
- Caused 40% reduction of table top aspartame usage in many countries—e.g., France
- Deprives the overweight and obese, and more critically so the diabetics, of healthy alternatives for sweet taste

**Key take-aways:**
- Media needs to become a more responsible communicator
- Lack of transparency can lead to communication vacuum
- There were no credible science organisations able to refute findings early on
- Showed further problems with the new model of regulation
Role of Media

As pointed out with the Ramazzini study, it is obvious that the role of the media is critical in properly communicating health information, so as not to cause panic and unsubstantiated reaction.

The following slides provide a ‘case study’ on their role in “mis-presenting” health information and in creating and amplifying a health scare.
An article published in The Guardian in 2005, reflects other news articles published at the time into the Ramazzini Foundation Study into Aspartame, which found it caused kidney cancer and was linked to other cancers. The study has since been discredited, but is nonetheless regularly featured in any current coverage on the subject of low-calorie sweeteners.
This article, posted on the BBC News website in late 2009 uses the launch of a FSA study into Aspartame to publish an article on concerns over the side effects of consuming the sweetener. Although more balanced in tone, it repeated previous concerns linking Aspartame to cancer, fertility issues etc displaying how easy it is for old claims (and inaccurate) to resurface.
Looking at the safety of low-calorie sweeteners in particular, this story ran in The Daily Mail in May 2011 providing details of a EU review into the safety of Aspartame. The review gave the media a platform to repeat old and disputed claims about the safety of Aspartame with minimal balance.
In the space of just one week, these three health stories ran as cover stories in the Daily Express, illustrating what a confusing, and potentially irresponsible picture even one media outlet can paint around healthy diet and nutrition habits.
So what will happen? Is the new model of regulation here to stay?

Yes, it will.

- Regulators, policy makers and industry will remain distrusted by the public at large
- Although public trust levels will vary between different ministries and different countries.
- Not all negative-trust levels can rebound
- Yet scandals will remain (particularly in food sectors)
The precautionary principle as a regulatory tool will remain

Many regulators see it as a convenient tool (in replace of more expensive and complicated risk assessments)

3 recent decisions

- The paraquat (Sweden-European Court of First Instance)
- UK FSA’s decision to call for a voluntary ban of azo dyes (April 2008)
- EU wide ban of deca-BDE-a brominated flame retardant found in electronic appliances
Policy makers/ regulators will do everything possible to halt dilution of power

- Deliberation for many will be a façade
- Do not want to work with NGOs

Some countries more ready for the new model than others

- Small member states will have difficult to cope

Aggressive media will lead to continued public distrust of policy makers and regulators

- Export of the “British model” to the rest of Europe
Going Forward & Conclusions

How can we best sort out the teething problems?

Regulators:

- **Ensure that regulators and policy makers are prepared for the transparency era.** Going forward, we will have more rather than less transparency; presently they are not ready.

- **Develop rigorous models-frameworks for where the precautionary principle should and should not be used** - good example is the European Commission’s communication on the topic from 2000.

- **Fund more research in how to make deliberation best work** - how can we move away from the self selection process?

- **Ensure that communication director within a regulatory agency** is part of the executive function.
Conclusions (cont.)

Science:

- Promote independent scientific advice - with the caveat that this will require government to become a larger funder of university departments
- Promote the establishment of a genuine European academy of sciences - set up specifically to reduce scientific uncertainty

Media:

- The establishment of some form of media guidelines to ensure that media does not unnecessarily amplify risks that in many cases should be attenuated-and communicate numbers accurately