Informing Interventions to reduce health Inequalities in Scotland: the ‘Triple I’ model

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Health inequalities in Scotland

![Graph showing health inequalities in Scotland over time]

Fundamental causes
- Global economic forces
- Macro socio-political environment
- Political practice and decisions
- Societal values to equity and fairness

Wider environmental influences
- Unequal distribution of income, power and wealth
- Poverty, marginalization and discrimination

Individual experience
- Economic and work
- Physical health
- Learning services
- Social and interpersonal

Effects
- Inequalities in health
- Healthy life expectancy
- Mortality

Undo
- Prevent
- Mitigate
Aim

To provide national and local decision makers with practical tools and interpreted research findings that will inform decisions about investing in interventions to reduce health inequalities.

What is scenario modelling?

- a form of policy appraisal which draws on multiple data sources to predict likely outcomes of particular scenarios.

- necessarily involves simplification and the extent to which the simplification is appropriate will be a matter of judgment (pragmatism vs sophistication)

- involves bringing together data and evidence from a variety of sources into a formal pre-specified conceptual framework and applying explicit analytical techniques.
**Triple I model overview**

**UNEXPOSED POPULATION**
- Projected mortality and hospitalisation rates

**EXPOSED POPULATION**
- Projected rates $\times$ Exposure effect

**BASELINE:**
- Premature deaths
- Years of Life Lost (YLL)
- Hospital admissions
- Inequalities

**INTERVENTION:**
- Premature deaths
- Years of Life Lost (YLL)
- Hospital admissions
- Inequalities

**TREATED**
- Projected rates $\times$ Exposure effect $\times$ Intervention effect
Triple I 2014:
- Income
- Employment
- Physical activity
- Obesity
- Smoking
- Alcohol consumption

Impeacts of Triple I 2014

2015 Review of Public Health in Scotland
Strengthening the Function and Re-Focussing Action for a Healthier Scotland

The Scottish Parliament
Parliament na h-Alba

Official Report
FINANCE COMMITTEE

World Health Organization
HSCP

Health and Social Care Partnership

healthscotland.scot  Twitter @NHS_HS  Instagram @nhstresscotland
Key objectives of Triple I 2018

1. Understand better how Triple I could be made more useful to local users and decision makers
2. Broaden the range of modelled interventions
3. Improve the model/tool and its dissemination

Engagement with key stakeholders

CPPs  HSCPs  Health Boards  PHE/NICE
LAs  COSLA  Academics  3rd Sector

Project Advisory Group
How to improve for local users

• Demand is there
  – Importance of evidence-based decision-making aids in face of tightened resources.

• Frame messages carefully
  – Relevance, specificity, focus.

• Improve presentation
  – Simple, local. Lose extraneous detail.

• One size doesn’t fit all
  – Not the right tool for every job
  – Triple I should be seen as part of a wider set of decision-making aids
  – E.g., Burden of Disease, Place Standard, ScotPHO profiles, Economics of Prevention, etc...

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The determinants

Triple I 2014:
- Income
- Employment
- Physical activity
- Obesity
- Smoking
- Alcohol consumption

Triple I 2018:
- Income
- Employment
- Education
- Housing
- Physical environment
- Health and social care
- Mental health
- Physical activity
- Obesity
- Smoking
- Alcohol consumption

The interventions

**INCOME**
- Income Tax +1p
- Income Tax -1p
- Personal Allowance +£1K
- Personal Allowance -£1K
- Council Tax increase
- Means-tested benefits +50%
- Devolved benefits +50%
- Citizen’s Basic Income (CBI)
- Citizen’s Basic Income Plus
- Local Income Tax
- ‘Real’ Living Wage
- Benefit uptake +1%

**PHYSICAL ENVIRONMENT**
- 20 mph speed limits

**PHYSICAL ACTIVITY**
- Pedometer-based intervention
- Brief physical activity advice
- Increase in active commuting

**EMPLOYMENT**
- Job provision

**MENTAL HEALTH**
- Computerised CBT
- Individual guided self-help
- Group physical activity

**SMOKING**
- Smoking cessation service
- Tobacco taxation +10%

**ALCOHOL CONSUMPTION**
- Alcohol Brief Intervention (ABI)

**OBESITY**
- Weight management service
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New in Triple I 2018

- **Data:**
  - Input data updated to 2016
  - Intervention evidence updated
- **Geographies:**
  - Integrated Joint Boards
  - City Region Deals
- **Outcomes:**
  - Premature mortality (<75 years)
  - Simpler measures of inequalities
- **Presentation:**
  - Simplified spreadsheets (including evidence summary)
  - Interactive web app + bespoke report download option
### The income-based policies

<table>
<thead>
<tr>
<th>Policy short name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Tax-tp</td>
<td>All income tax rates increased by 1.5% (4.5% higher rate, and 1.5% additional rate)</td>
</tr>
<tr>
<td>Income Tax-fp</td>
<td>All income tax rates decreased by 1.5% (79% higher rate, and 1.5% additional rate)</td>
</tr>
<tr>
<td>Income Tax basic rate-tp</td>
<td>Income Tax basic rate increased by 1.5% (1.5% additional rate)</td>
</tr>
<tr>
<td>Income Tax basic rate-fp</td>
<td>Income Tax basic rate decreased by 1.5%</td>
</tr>
<tr>
<td>Personal Allowance = 10%</td>
<td>Income Tax Personal Allowance (10%) increased from £1,180 to £2,180</td>
</tr>
<tr>
<td>Personal Allowance = 20%</td>
<td>Personal Allowance (10%) decreased from £1,300 to £1,040</td>
</tr>
<tr>
<td>Council Tax increase</td>
<td>Council Tax increased for bands E (+7.5%, representing an increase from the Scottish average of £1,350 to £1,434), F (+12.5%, from £1,643 to £1,846), G (+17.5%, from £1,890 to £2,277), and H (+22.5%, from £2,275 to £2,786)</td>
</tr>
</tbody>
</table>

### Benefits boost

- Basic benefits +100%: 50% increase in basic benefits paid to those who pass an income test (Child Tax Credit, Working Tax Credit, Housing Benefit, income related Job Seeker's Allowance, income-related Employment and Support Allowance, and Income Support)
- Basic benefits +50%: 50% increase in basic benefits
- Disability benefits +30%: 30% increase in the above benefits
- Disability benefits +10%: 10% increase in the above benefits
- Scottish Government: Additional Benefit, Carers' Allowance, Disability Living Allowance/Pension Independence Payment, Industrial Injuries Disability Benefit, Severe Disability Allowance, and Winter Fuel Allowance
- Director benefits +10%: 10% increase in the above benefits
- Attendance Allowance +10%: 10% increase in the Attendance Allowance
- Attendance Allowance +50%: 50% increase in the Attendance Allowance
- Carer's Allowance +10%: 10% increase in the Carer's Allowance
- Carer's Allowance +50%: 50% increase in the Carer's Allowance

**Data and evidence:**

- [Incomes and inequalities in Scotland](https://www.nhs.scot/) for understanding the impact of these policies on health inequalities.
Triple I:

- Can compare potential effects of interventions without actually implementing them.
- Shows importance of
  - targeting interventions to disadvantaged individuals/areas.
  - considering intervention cost when comparing.
  - focusing on inequalities.
- A tool to support decision makers with resource allocation.
END OF
PART ONE

Any questions?