



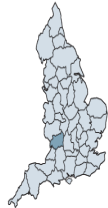
Summary Statistics

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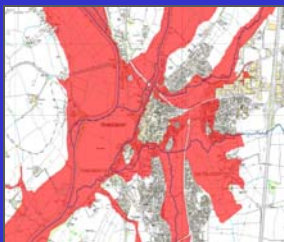
Tewkesbury,
Gloucestershire

Floods

Gloucestershire	
Key affected police areas	Gloucestershire
Key affected local authorities	Cheltenham BC Gloucester CC Tewkesbury BC
Area	3,150km ²
Population	833,100
Houses flooded	Approx. 6,000
Businesses flooded	Over 1,000



Source: Pitt Review 2007



Tewkesbury flooded area map

Source : Environment Agency

Key Findings

Profile of the Respondents

Female: 56% Male: 44%

Age groups: 18-39 yrs: 13%; 40-64 yrs: 53%; 65 yrs+: 35%

Education: 54% had some school level qualifications, 22% had education to degree level, whilst 23% had professional or higher level qualifications

Profession:

- Elementary and Intermediate: 24%;
- Professional: 19%;
- Retired: 41%

Home Ownership: owned outright: 46%; mortgage: 33%; Social housing: 12%; private rental: 7%

Social Impacts

- 1) Although there was not much significant difference between the mental health of males and females (mental health indicators =81 and =78 respectively) of flooded groups, the predictors differed. The main predictor of mental health for males was their self belief in their ability to cope, whilst for females, it was their sense of community.
- 2) There was a significant difference in the age and extent of trauma experienced ($p = 0.03$). Higher stress levels were found in the age group between 25-39 years than older or younger people. Further significant differences were observed in strategies of coping ($p = 0.037$). Older people relied more on their religious beliefs to cope with the floods as compared to others.
- 3) 95% of respondents agreed that their neighbourhood is a good place to live. 46% reported that they had more contact with people; and another 11% said that they had different contacts now after floods.



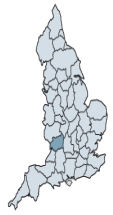
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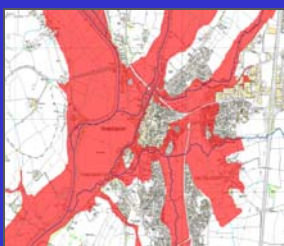
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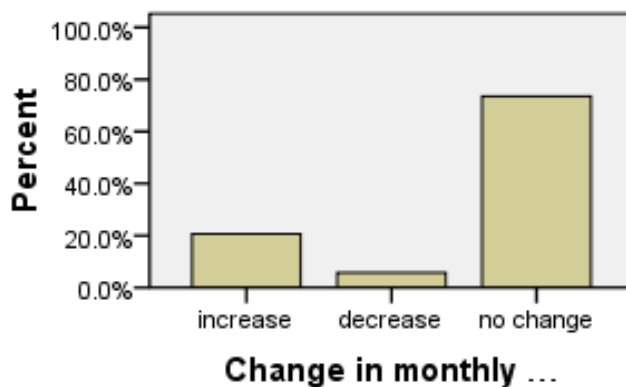


Tewkesbury flooded area map
Source : Environment Agency

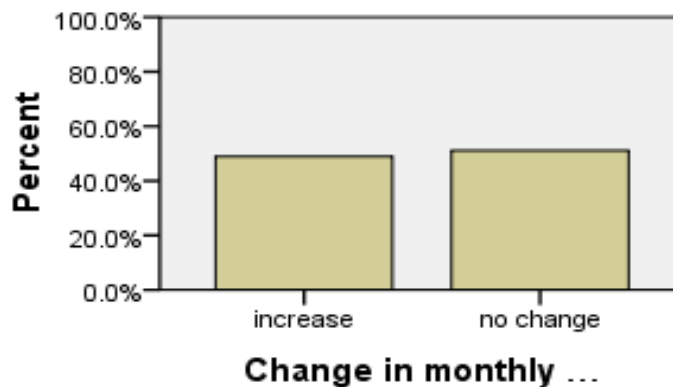
Change in monthly expenditure and household structure

- 4) Households with children found their food expenses increased significantly as compared to those households without children. Households with children more often ate cheaper, less nutritious or easier to prepare foods. A statistically significant relationship ($p=0.006$) was found between household structure and food expenses after floods.

Household without children



Household with children





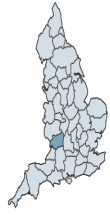
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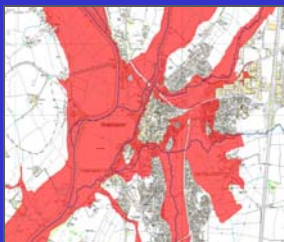
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Source: Pitt Review 2007



Tewkesbury flooded area
map

Source : Environment
Agency

Key Findings

1. **conomic Impacts** Retired people experienced the highest level of change in economic position compared to other occupational groups. A statistically significant relation was found (0.010) between occupational groups and the extent to which their economic position was affected.
2. The majority (67%) of flooded persons reported recovery of their occupation to a high extent. Another 20% reported this recovery to some extent, whilst a minority (13%) reported that their occupations had not recovered or had a very low recovery.
3. People who were flooded were less willing to pay (WTP) for a hypothetical flood scheme. 68.4% of flooded and 72.4% of non flooded persons expressed their Willingness To Pay for flood defences to avoid physical damages to home and contents. The main reason given by flooded respondents were: 44% said that they did not want to pay as they believed that government or council should be making such investment, 22% did not believe that the scheme would work and avoid flooding, while another 9% said that they could not afford to pay. The reasons given by non flooded persons for not wanting to pay were: 37% believe that the scheme will not work or avoid flooding; 27% said that they believed that government /council should pay; 23% could not afford to pay.



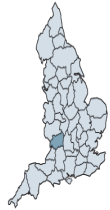
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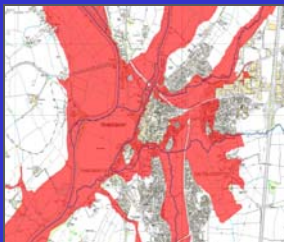
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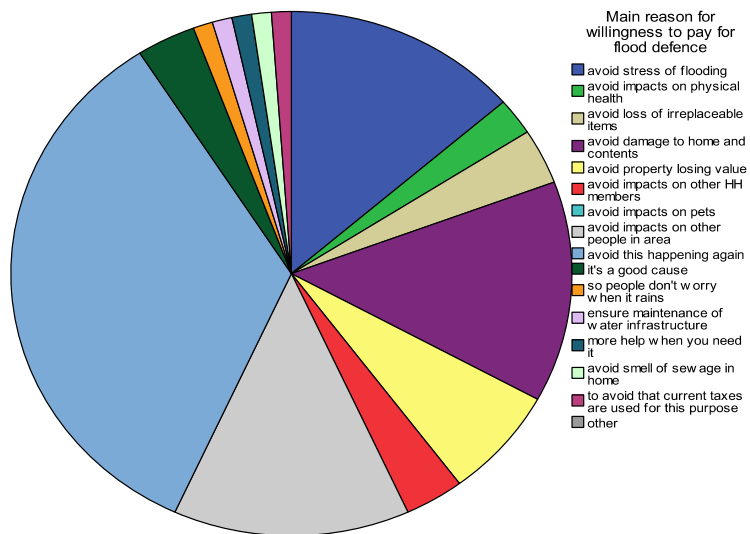
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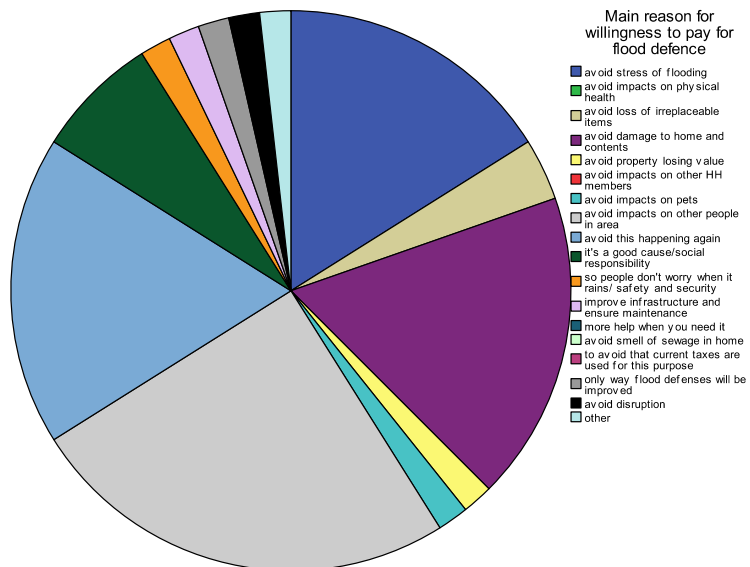
Tewkesbury flooded area map
Source : Environment Agency

Reasons for Willingness To Pay (WTP) for a hypothetical flood scheme

Reasons for willingness to pay (flooded)



Reasons for willingness to pay (non flooded)



The highest motivation for the flooded group to pay for flood defences was avoiding being flooded again, while that for the non flooded was to avoid other people in the area being flooded again.



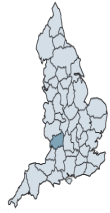
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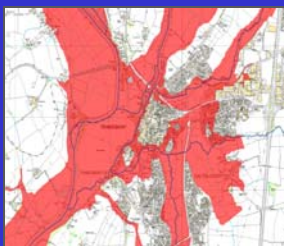
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Source: Pitt Review 2007



Tewkesbury flooded area map

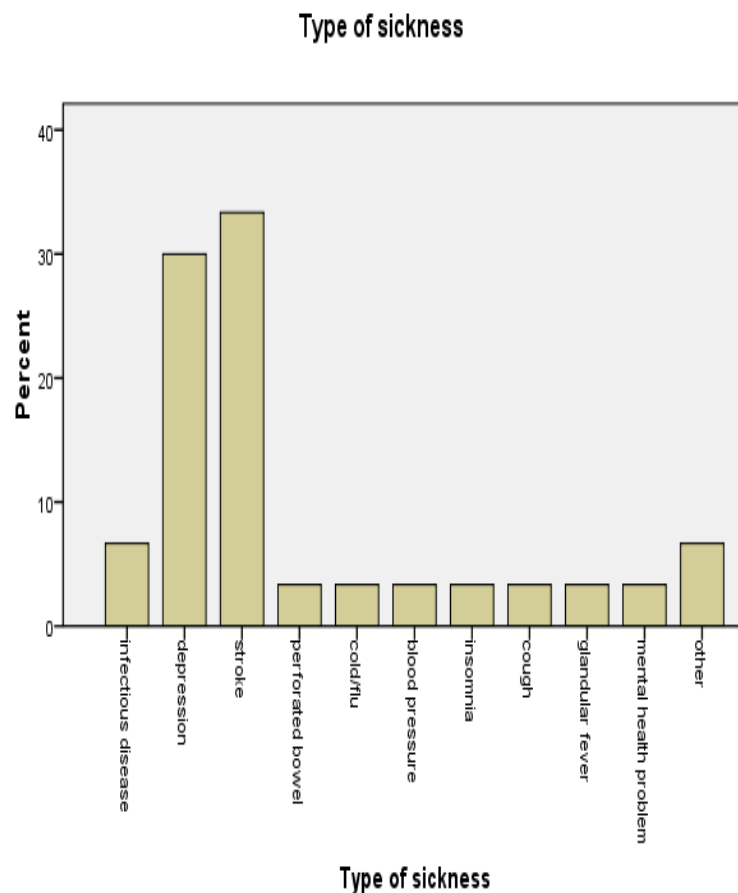
Source : Environment Agency

Key Findings

Health Impacts

- 22% of the total respondents stated that they or their household members had faced sickness due to floods. Of these respondents, 30% reported depression, whilst another 33% reported suffering from a stroke.

Nature of illness reported after floods





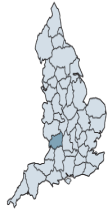
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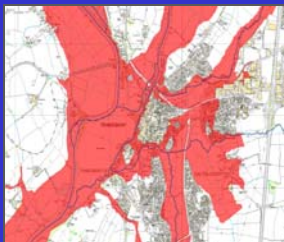
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Key Findings

Integrated Impacts:

1. Statistical analysis (hierarchical linear regression) to identify predictors of mental health revealed that individual economic position was negatively associated with mental health ($p < 0.05$). When social variables such as gender and age were controlled, mental health was found to be negatively affected by perceived deterioration of one's economic position.
2. There were differences between the flooded and the 'control' groups. Also gender differences. On both physical functioning and psychological functioning, women in the flood affected group scored lower than men.

