



# Pandemic Flu -2009 UPDATE

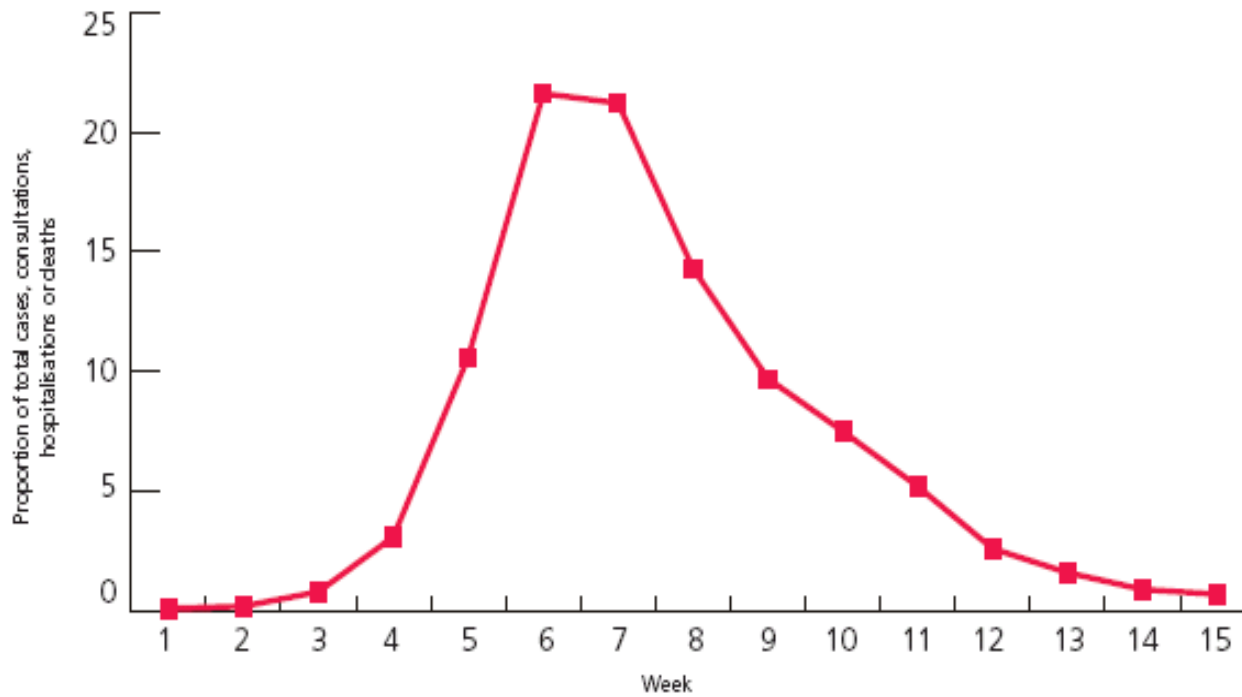
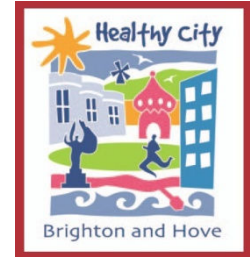
HOSC

NHS Brighton and Hove  
September 30<sup>th</sup> 2009

Dr. Tom Scanlon  
Director of Public Health



Typical single wave flu profile with proportion of new clinical cases, consultations, hospitalisations or deaths by week



# Swine flu progress



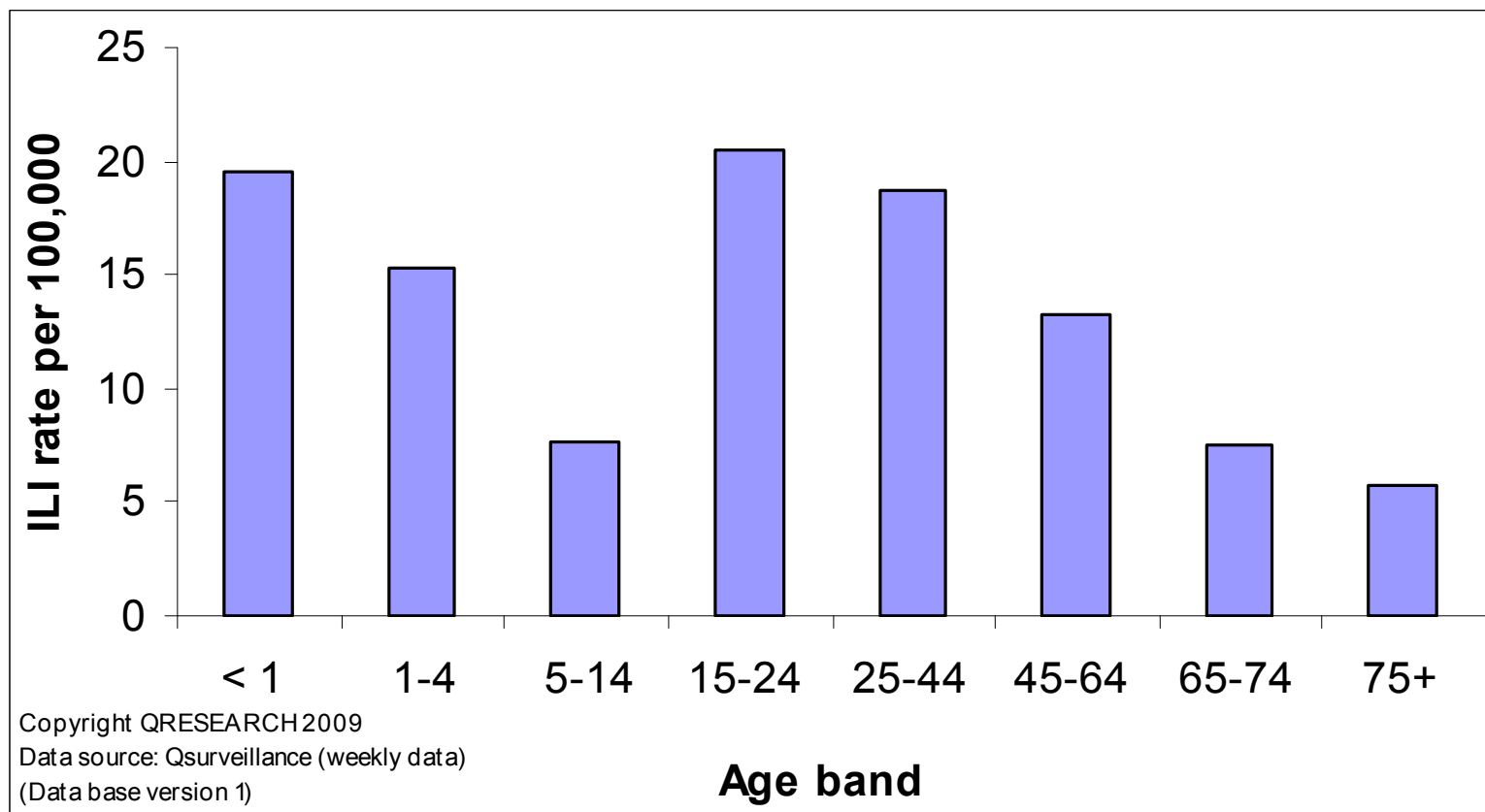
- Emerged from Americas therefore early detection and typing
- Came in northern hemisphere summer months
- First UK cases on April 27<sup>th</sup> – Scottish couple returning from Mexico
- Peaked at Week 28 at 150/100,000 (Seasonal flu of 1999 peaked at 220/100,000 at Week 52)
- First wave now complete
- Not clear if resurgence will occur
- May be less attributable mortality to pandemic swine flu than there was in last year's seasonal flu



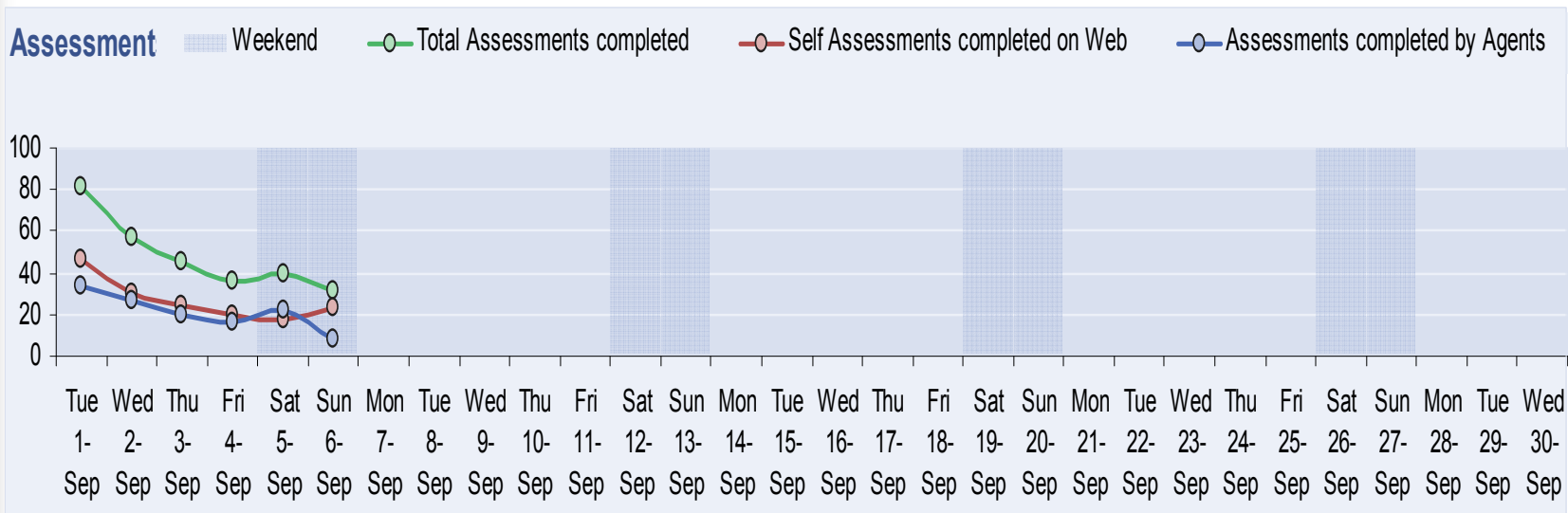
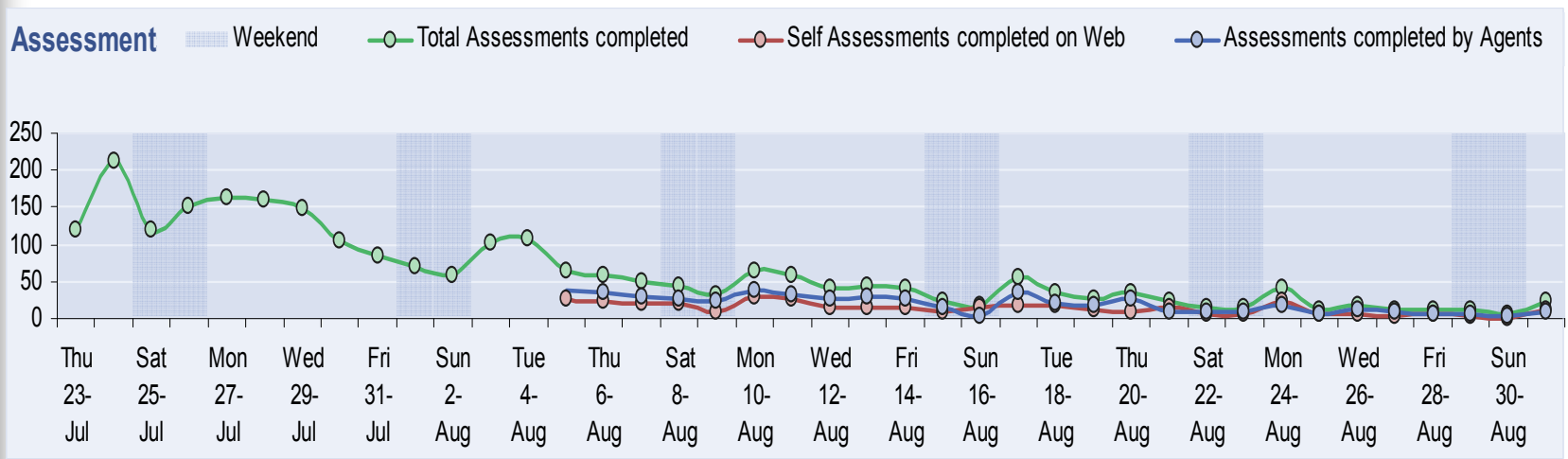
# Swine flu features

- Clinically a mild disease in most people
- Severe disease in at-risk groups
- However 20-30% of those severely ill had no co-morbidities
- Questions remain about who should get antivirals
- Typically squeezes out other viruses

# Flu surveillance as of August 25<sup>th</sup> 2009



# Antiviral distribution in Brighton and Hove July 23<sup>rd</sup> – September 6<sup>th</sup> 2009



## Lessons from Australia / NZ



- Population 21 million
- By 11<sup>th</sup> August: 27,663 confirmed cases, 3281 hospital admissions and 95 deaths
- In NZ 3,208 confirmed cases, 981 hospital admissions, 11% of population infected, 15 deaths
- In 1918/19 pandemic when population 6 million there were 15 000 deaths (95% were from bacterial pneumonia)
- Median age of death 51 years compared with 83 years for seasonal flu
- Pregnant women and obese vulnerable
- This is a new virus and things may change
- Rich countries will be fine, poorer countries will struggle

# Monitoring secondary care impact



- Flu-cin (dataset from 5 sentinel hospitals: Liverpool, Imperial College, Leicester, Sheffield and Nottingham (HUB))
- Results available from first 144 hospital admissions (currently > 200 swine flu admissions)





# Monitoring secondary care impact - Flu-cin data

- 1% of patients need hospital admission (but subclinical infection rates may be higher than thought)
- 48% of admissions aged 15-44 years
- Co-morbidity in 20% of under 5 years / 90% of > 65 years
- 10% of hospital patients requiring ITU
- Death rate if hospitalised = 3.6%
- Top five co-morbidities: asthma, heart disease, diabetes, COPD and neurological
- Obesity and 3<sup>rd</sup> trimester pregnancy (x 4 risk of hospitalisation) are also risk factors

## Cumulative number of deaths associated with swine flu in England and Devolved Administrations (03 September 2009)

### Number of Deaths

■ England 61

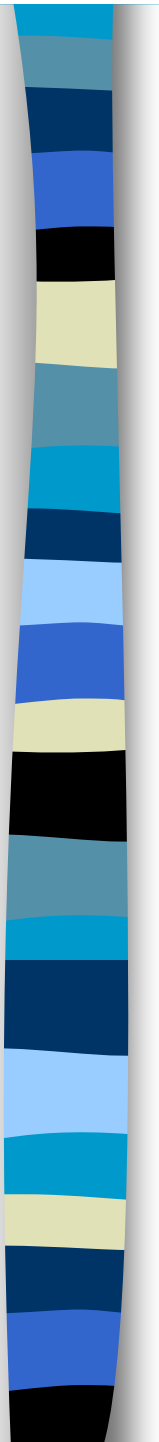
■ Scotland 7

■ Wales 1

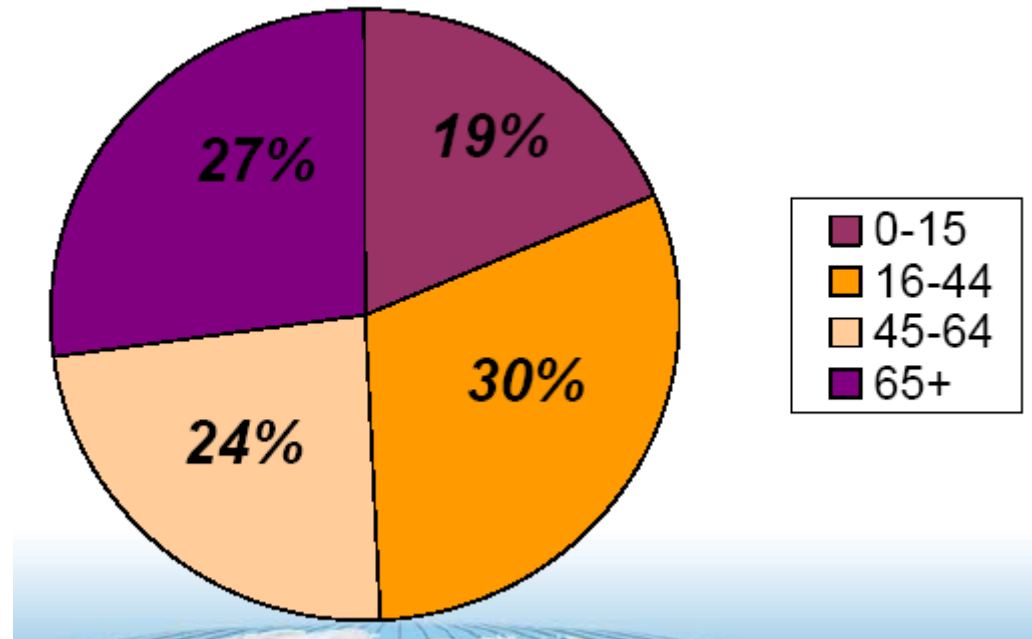
■ N Ireland 1

■ **Total UK** 70

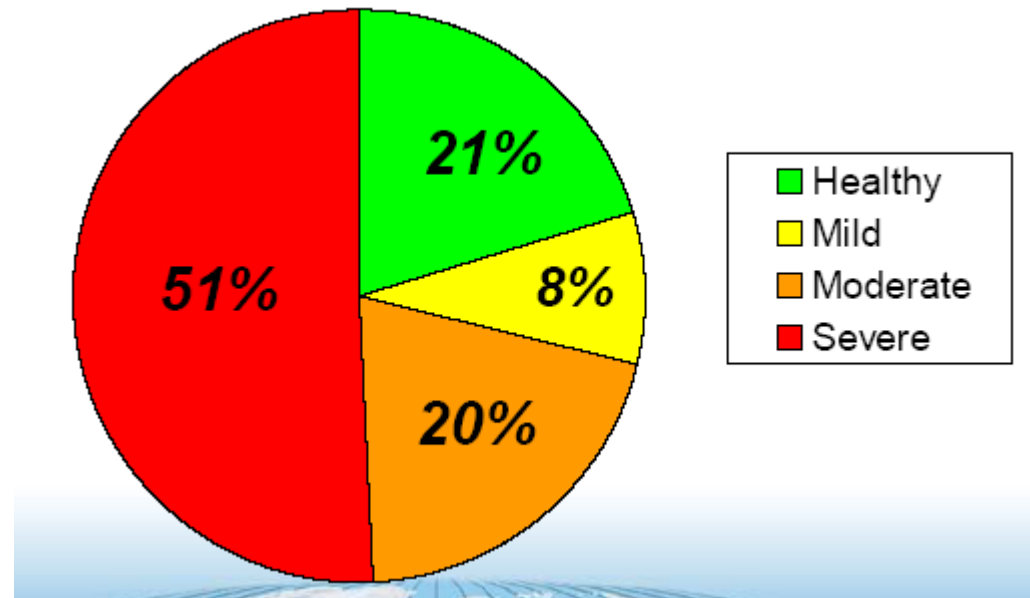
■ One death has been reported in the Cayman Islands (Overseas Territory)



# Age distribution of swine flu deaths in England (as of September 3<sup>rd</sup> )



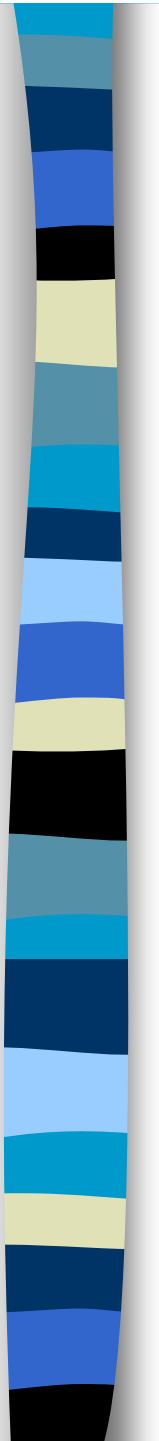
# Underlying conditions for fully investigated deaths (as of September 3<sup>rd</sup> )





# Modelling swine flu

- Fall off in first wave started before school closures
- Susceptibility by age; < 1 year = 1, 15-24 years = 0.55, 25-34 years = 0.44 etc
- 1% of patients need hospital admission
- 48% of admissions aged 15-44 years
- Second wave depends upon how many infected and susceptibility profile of at risk group



# Lessons from Eton Outbreak of swine flu



- Large outbreak in 'closed community'
- 52% of those with influenza-like illness (ILI) had positive serology for swine flu
- 32% of those with no symptoms of ILI had positive serology for swine flu
- Overall infection rate of 39%
- Presence of fever associated with x 2 chance of positive serology
- Many cases of swine flu may go undetected
- Effects of oseltamivir in the outbreak being analysed

# Antivirals



## Guidance on use:

- Prevention of a pandemic virus emerging from an outbreak of avian influenza
- Prophylaxis – very limited use
- Treatment of cases / at risk groups

# Oseltamivir side effects (% Adults) HPA conference 2009



Adults	SOPC	Placebo	London	SWest	Sheffield
Nausea	10	4	30		31
Abdo pain	2	2	22		8
Diarrhoea	2	1	4		6
Vomiting	1	1	15		6



# Oseltamivir side effects (% Children) HPA conference 2009

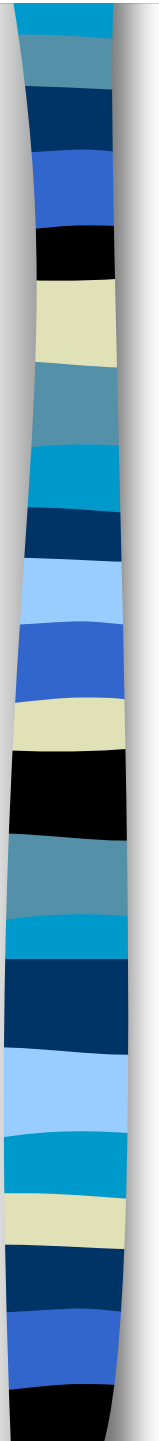


Children	SOPC	Placebo	London	SWest	Sheffield
Nausea	14		29	33	23
Abdo pain	1		16	21	20
Diarrhoea	1		0	7	6
Vomiting	10		13	11	7

# Swine flu vaccination



- Vaccine programme targeted at those at-risk of complications
- Single dose gives 90% protection but two doses gives 95% protection
- Paediatric trials not complete yet
- Limited volume of vaccine available



## Pandemic-specific vaccines



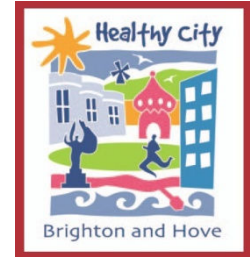
- Primary care based vaccination programme
- Guidance just released on September 14<sup>th</sup> 2009
- Will take place in stages and take several months to complete delivery

# Swine flu vaccination



- 6 months to 65 years in seasonal flu at-risk groups (In B&H = 23,000)
- All pregnant women (In B&H = 2,750)
- Household contacts of immuno-compromised (in B&H = 2,600)
- Over 65s in seasonal flu at-risk groups (In B&H = 18,000)
- Front-line staff

# Swine flu vaccination

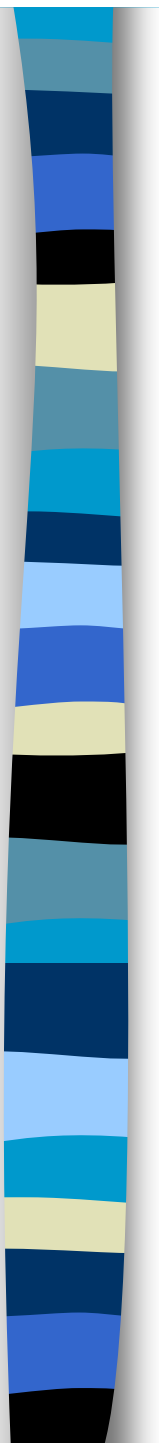


- GPs to receive £5.25 for each H1N1 vaccine given
- 28 QOF points released
- Further QOF changes under discussion
- Routine childhood immunisation data collection for December quarter to be delayed by six weeks
- Practices incentivised to score 3% higher than seasonal flu uptake
- District nurses to vaccinate housebound patients
- LES funding NOT to be withdrawn to pay for vaccine programme

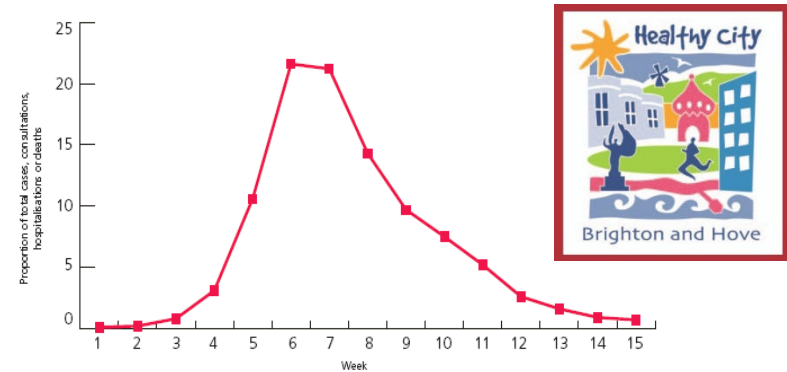
# Swine flu vaccination costs in Brighton and Hove



- Seasonal flu vaccine uptake in at-risk groups in B&H in 2008 was 45%, while uptake in over 65s was 71%
- 50% uptake - £243,000
- 70% uptake - £340,000
- 100% uptake - £480,000
- Vaccine costs to be borne centrally

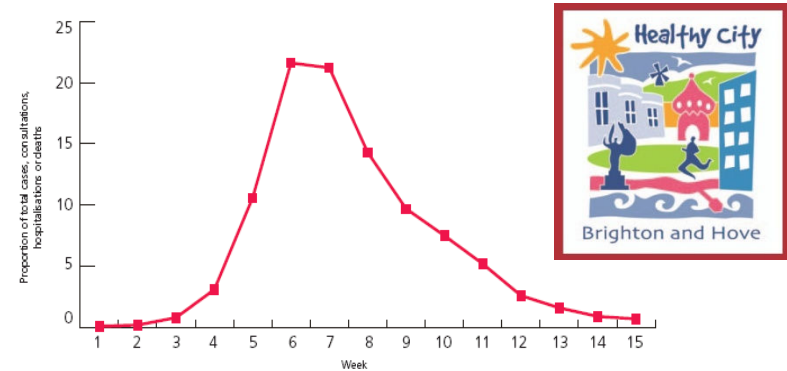


# Surge Capacity



- Prioritisation of services in all sectors of Health and Social Care
- Criteria for admission to and discharge from hospital
- Criteria for continuing care in the community (less than 48 hours or more than 48 hour contact)
- Staff working outside their usual roles and in different locations
- Deployment or retired staff
- ‘Buddying’ of practices and pharmacies
- Host of issues: private schools, homeless people, foreign students, oxygen supplies, PPE supplies, child protection,

# Surge Capacity



Revised planning assumptions (September 2009):

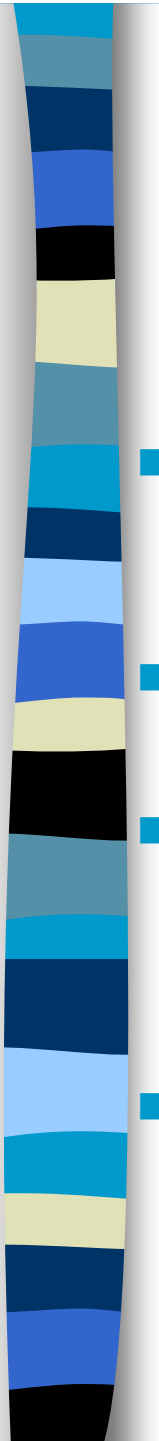
- Clinical attack rate - 30%,
- Peak clinical attack rate 4.5–8.0% (mean 6.5%),
- Case complication rate of 15% (equivalent to around 1100 people in B&H),
- Hospitalisation rate of 1% of clinical cases (around 780 people in B&H)
- 25% of hospitalised requiring intensive care
- Case fatality fallen from 0.35% to 0.1%.



## Possible impact on the workforce



- Up to 50% of the workforce may require time off during the pandemic
- At the peak 15-20% of staff may be absent
- Staff absences will result from caring responsibilities, fear of infection bereavement, and practical issues such as travel problems
- Modelling suggests that smaller units with 5-15 staff should allow for up to 30-35% absenteeism at the peak



# Other possible measures



- Coughs and sneezes hygiene campaign – YES
- Restrictions on public gatherings - possible
- School closures – useful local measure during peak
- Restrictions on international travel - no
- Restrictions on local public travel – very unlikely



## What should health staff do?

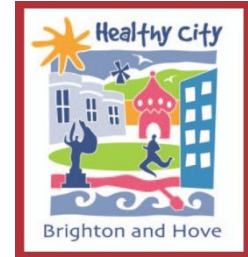
- Adhere to hygiene measures
- Be prepared to work outside of normal role
- Cooperate with planning measures
- Start making home preparations  
Simple analgesia and flu remedies  
'Buddy with friends for transport and for school closures'
- Remember that flu work will take priority



Back (dorsum)

Front (palm)





# CATCH IT

Germs spread easily. Always carry tissues and use them to catch your cough or sneeze.



# BIN IT

Germs can live for several hours on tissues. Dispose of your tissue as soon as possible.



# KILL IT

Hands can transfer germs to every surface you touch. Clean your hands as soon as you can.



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## SWINE FLU INFORMATION

0800 1 513 513

[www.nhs.uk](http://www.nhs.uk)  
[www.direct.gov.uk/swineflu](http://www.direct.gov.uk/swineflu)

# IMPORTANT INFORMATION ABOUT SWINE FLU

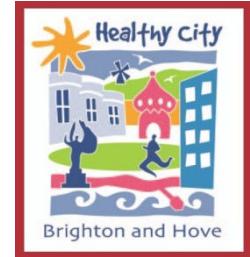
This leaflet contains important information to help you and your family - **KEEP IT SAFE**





# Flu monitoring and management

- Initially led by Professor Lindsey Davis – National Director of Pandemic Flu since April 2006 (DoH, Prof PH and Epidemiology at University of Nottingham)
- May 2009 - Ian Dalton appointed National Director for NHS flu resilience (Former CEO of NHS Northeast)
- Daily sitrep: flu deaths, antivirals distributed, antiviral stock.
- Weekly teleconferences Sussex
- Twice weekly teleconferences – south east coast
- Weekly MART-flu
- Local 'exclusive' Director-level Flu lead
- Pandemic tool 'to assist in planning': command and control, governance, cross-sector plans, communications, resilience and business continuity, workforce skills, redeployment and communications, vulnerable groups, flu recovery, finance...
- Board Assurance



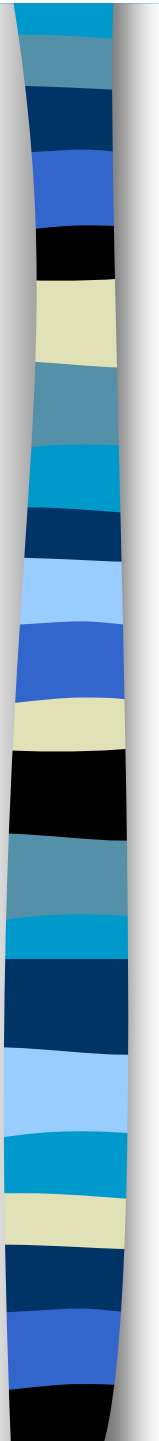
Lessons from  
Pandemic Influenza in Brighton  
1968  
Hong Kong Flu H3N2



# Impact of Hong Kong flu



- Fewer people died during this pandemic than the two previous pandemics for various reasons
- The pandemic did not gain momentum until near the winter school holidays
- The same virus returned the following years: a year later, in late 1969 and early 1970, and in 1972.



# Further information



Health Protection Agency website:

<http://www.hpa.org.uk/>

Department of Health website:

<http://www.dh.gov.uk/en/Publichealth/Flu/PandemicFlu/index.htm>

Royal College of General Practitioners

[http://www.rcgp.org.uk/clinical\\_and\\_research/pandemic\\_planning/H1N1\\_Advice\\_Reference\\_Table.aspx](http://www.rcgp.org.uk/clinical_and_research/pandemic_planning/H1N1_Advice_Reference_Table.aspx)



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HOSC

NHS Brighton and Hove

September 30<sup>th</sup> 2009

THANK YOU

Dr. Tom Scanlon

Director of Public Health

