

Vaccination at school – future challenges

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**Prevention and control of viral hepatitis through adolescent health
programmes in Europe**
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Future challenges for school vaccination

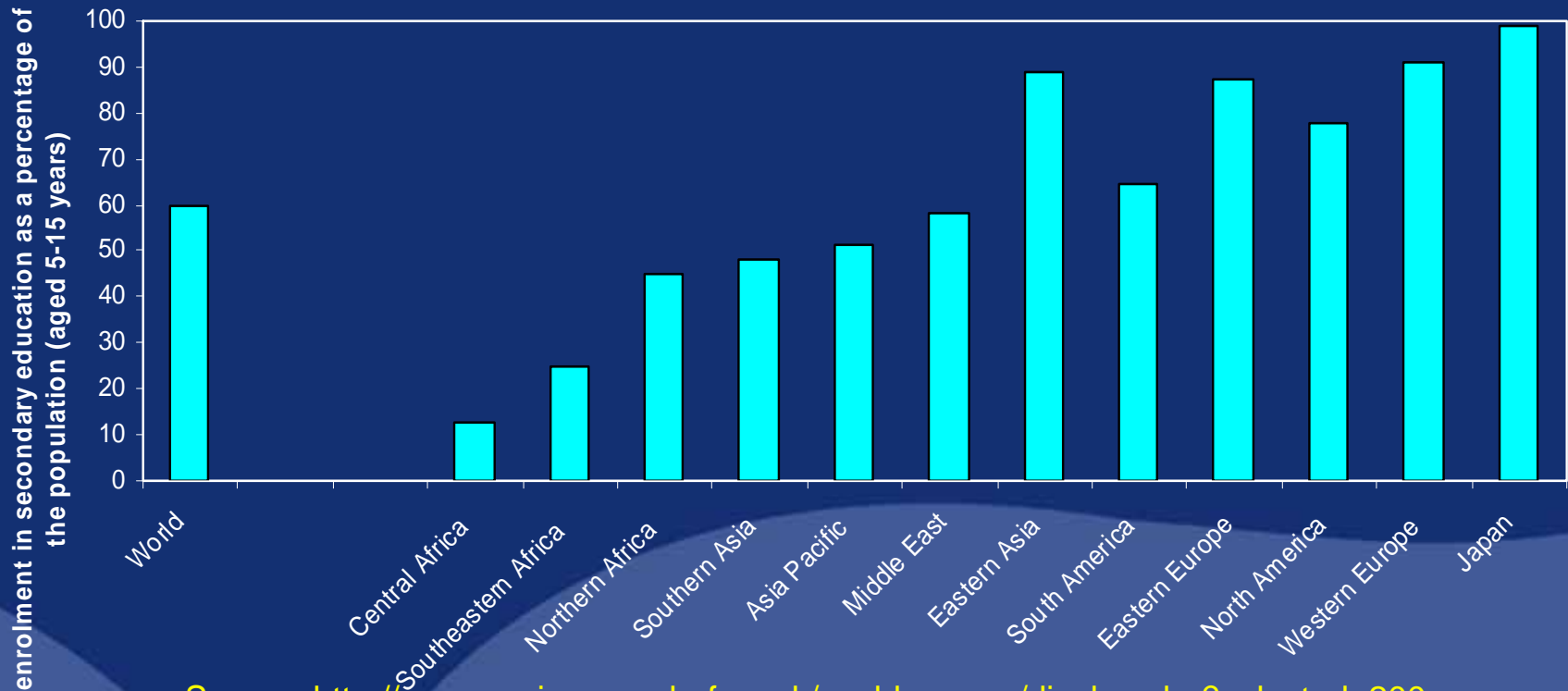
- **Why vaccinate at school?**
- **Experience of vaccination at school**
- **Practicalities**
- **Acceptability and uptake**
- **Costs**
- **Summary and conclusions**

Why vaccinate at school?

- High proportions of adolescents are required to attend school



Enrolment in Secondary Education



Source: <http://www.sasi.group.shef.ac.uk/worldmapper/display.php?selected=200>

Developing countries: Stevens W & Walker D. Adolescent vaccination in the developing world: time for serious consideration? *Vaccine* 2004; 22:781-785

Clements CJ, Abdool-Karim Q, Chang ML, Nkowane B, Esparza J. Breaking new ground--are changes in immunization services needed for the introduction of future HIV/AIDS vaccines and other new vaccines targeted at adolescents?

Vaccine. 2004 Jul 29;22(21-22):2822-6.

Why vaccinate at school?

- High proportions of adolescents are required to attend school
- Lower proportions of adolescents routinely attend primary care



Why vaccinate at school?

- High proportions of adolescents are required to attend school
- Low proportions of adolescents routinely attend primary care
- Often higher uptake
- Often more cost-effective
 - (e.g. Guay et al Effectiveness and cost comparison of two strategies for hepatitis B vaccination of school children. (Can. J. Public Health Rev. 2003; 94:64-67.)

Why vaccinate at school?

- High proportions of adolescents are required to attend school
- Low proportions of adolescents routinely attend primary care
- Often higher uptake
- Often more cost-effective
- Integrated opportunities for health promotion activities
- Concept of 'health promoting' schools being advocated



http://portal.unesco.org/education/en/ev.php-URL_ID=35173&URL_DO=DO_TOPIC&URL_SECTION=201.htm



European Network of Health Promoting Schools

<http://www.euro.who.int/ENHPS>



WHO

Gold RS. The World Health Organisation: school health initiatives. J. School Health. 1990; 60(7):370-8.



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Experience of vaccination at school

School vaccination in the UK

Vaccine	Age	Duration
BCG	10-14 years	1953-2005
Diphtheria/tetanus/polio	13-18 years	1960s-ongoing
Rubella (girls only)	13 years	1971-1994
Measles/rubella	5-16 years	1994
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Equity

All schools – state and private
Free of charge

Freedom

Voluntary
Lack of incentives



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Practicalities



Practicalities

Vaccination

- Nurse-led in most places; previously more medical input
- Nurses employed by Community Health Care Partnerships
- Extra agency nurses sometimes required, especially for campaigns
- Each school has a named school nurse (1 per 2380 children; RCN 2005)
- Work in partnership with other stakeholders
- Immunisation is a core part of nurses' service delivery
- Ongoing training (based on national standards & core curriculum)



Practicalities

Administration

- Administrators also employed by Community Health Care Partnerships
- Ideal is electronic call-recall system (School Health Module)
- Some areas still paper-based

Logistics

- Vaccination generally performed in school halls
- Vaccines delivered from pharmacy, with consumables, that morning



Practicalities

Communication / Education

- Pupils and parents receive information in advance of immunisation
- Teachers
- Peer education?
- Consent forms are sent home for parent's signature
- Young people's rights are also considered
- Older pupils may consent themselves



Practicalities Consent

This form should be completed and signed by school pupils aged 16 years and over, and by parents or guardians on behalf of younger children. Children under the age of 16 who have read this leaflet and who understand the facts about this immunisation should also sign the form for themselves. In these circumstances it is not *necessary* for the parent or guardian to sign the form as well, but it would be helpful if they did so. Please also complete the tear-off slip at the bottom of the page so that we can inform your GP that the immunisation has been given.



- **Most parents favoured a joint decision with child, but 19% would not take their child's view into consideration**
- **42% agreed that the child should be able to be vaccinated without parental consent; 48% opposed**

Brabin L, Roberts S, Farzaneh F, *et al.* Future acceptance of adolescent human papillomavirus vaccination: a survey of parental attitudes. *Vaccine* 2006;**24**(16):3087-94.

Practicalities

Communication / Education

- Pupils and parents receive information in advance of immunisation
- Consent forms are sent home for parent's signature
- Child's rights are also considered
- Older children may consent themselves
- Other stakeholders are also informed/consulted
- Telephone numbers for queries





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NHS
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The Scottish
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The Herald

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SCOTLAND'S NEWSPAPER
.co.uk

Evening Times ONLINE

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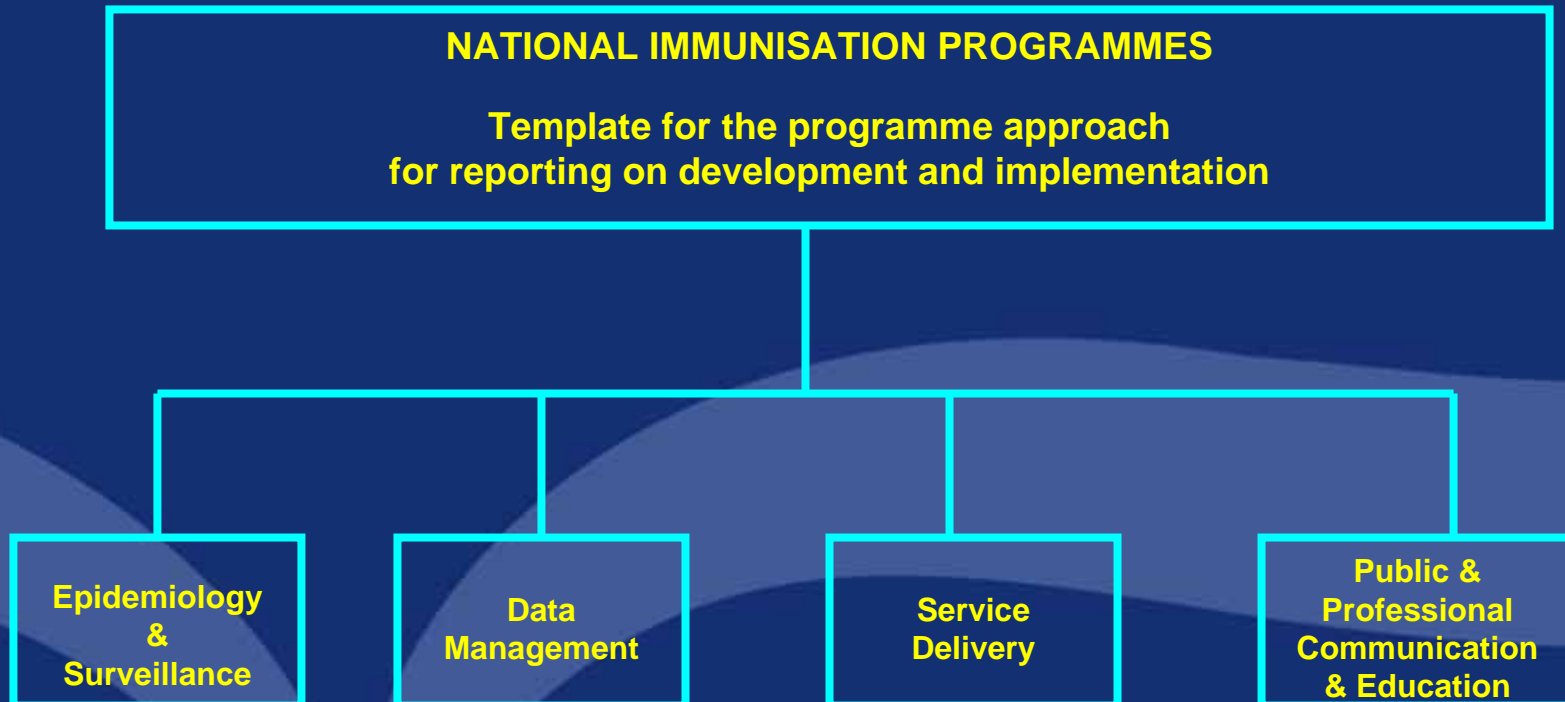

Glasgow
CITY COUNCIL



Practicalities

Co-ordination

- Strong central co-ordination
- Programme approach with project management methodology
- Development of auditable national standards for co-ordination





Acceptability

- Focus group discussions in four secondary schools
- Discussion with S1 pupils (age 11-12 years) and parents
 - Assess perceptions of acceptability and attitudes to HepB vaccination
 - Investigate what would influence uptake
 - Explore reasons for participation and non-participation
 - Inform health education material

Acceptability

Schools

- Most pupils prefer having vaccines at school than in primary care
- Most parents favour schools, due to perceived children's preferences

Pupil: 'If you see all your friends having it you'll feel more confident.'

- Pupils didn't want to know too far in advance – anxiety!
- Lack of privacy and embarrassment were barriers for a minority

HepB

- Most pupils knew little/nothing about HepB
- Knowledge that HepB could be spread through piercing and tattooing caused anxiety
- Parents also had low knowledge

Parent: 'I thought it was just drug users that got it'



Risk of HepB

- **Parents realistic about child's future risk**

Parent: 'I mean we don't know how promiscuous our children are going to be or if they are going to be drug users or not. We would all hope that they wouldn't be but...'

Vaccination

- **Pupils felt it was unfair that they were not offered vaccine, while young people in other countries were**

Decision making

- **May still seek advice/reassurance from primary care**
- **Concern about side-effects**
- **Majority pupils nearly all parents in favour of HepB vaccine**

Uptake

- High uptake in schools based programmes is achievable

HepB

92% consent

91.3%, 89.2% and 80.3% (1, 2 or 3 doses)

dT & OPV

86% (2001/2; age 14 years)

MenC

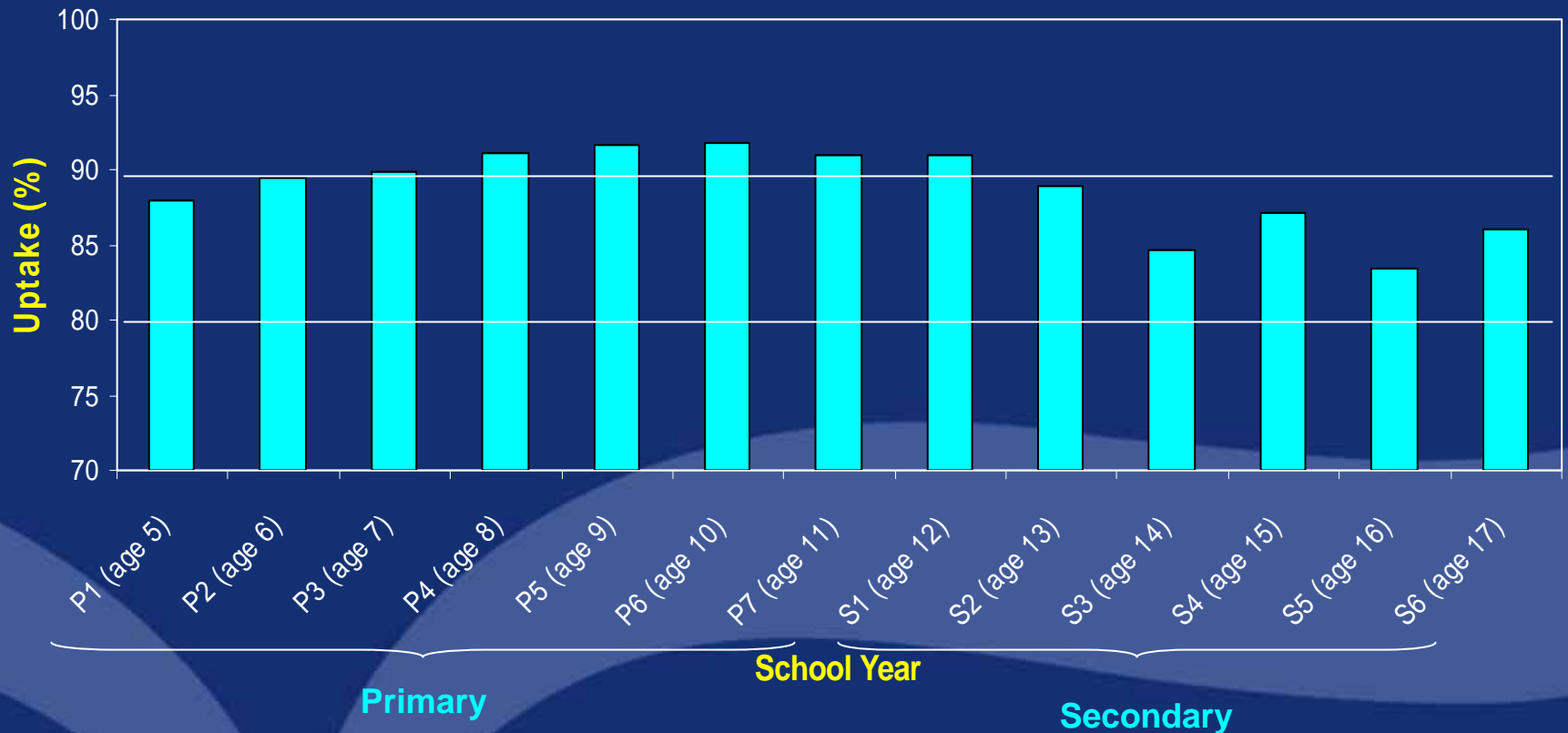
90.9-83.4% in Secondary school

- Uptake varies by age





Vaccine Uptake in MenC Schools Campaign 1999-2000



Uptake

- High uptake in schools based programmes is achievable

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dT & OPV 86% (2001/2; age 14 years)

MenC 90.9-83.4% in Secondary school

- Uptake varies by age
- Uptake can vary by other factors. Lower uptake for:
 - males (78% vs 82% for 3 doses)
 - pupils living in more deprived areas (74% (highly deprived) vs 89% (most affluent))
 - schools with higher absentee rates (74% vs 83%)
 - pupils attending special needs schools (66% vs 80%)
 - schools with more non-Caucasian pupils (75% vs 80%)



Costs

- Can be more cost-effective than primary care

Guay et al. Effectiveness and cost comparison of two strategies for hepatitis B vaccination of schoolchildren. *Can J Pub Hlth* 2003; 94(1):64

- In HepB pilot scheme, 70% economic costs were vaccine costs
- HepB £30 per course; HPV £200 per course

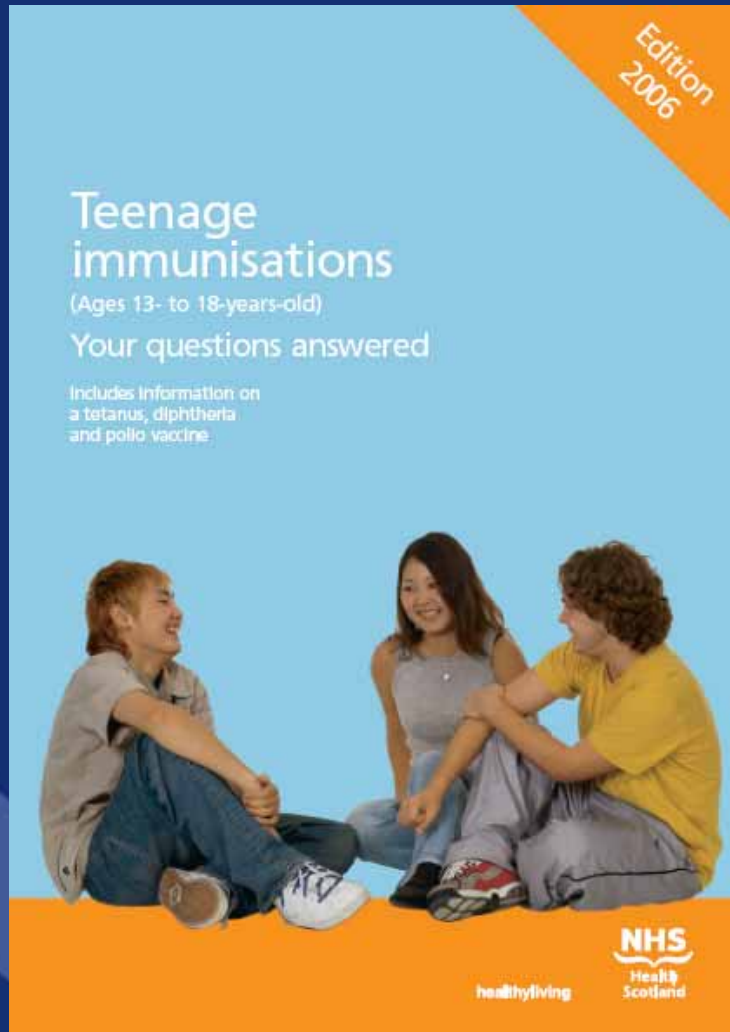
Wallace LA, Young D, Brown A, Cameron JC, Ahmed S, Duff R, Carman WF, Kitchin NRE, Nguyen-Van-Tam JS, Goldberg DJ. Costs of running a universal adolescent hepatitis B vaccination programme. *Vaccine* 2005; 23:5624-5631.

Summary & conclusions

- Integration with health promotion, especially sexual health
- Retention and/or creation of appropriate infrastructures
- Early engagement with key stakeholders
- Capacity for electronic call-recall systems
- Balancing priorities within school health
- Reduction in inequalities



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Thank You

HepB

Lesley Wallace

Syed Ahmed

Rina Duff

David Goldberg

Alison Hinds