15 min consultation.
Public Health for Paediatricians: Adolescent Public Health.

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Abstract
Paediatricians have a key role to play in ensuring a holistic, integrated approach is taken to meeting adolescent health needs. There is increasing evidence that failure to do so can lead to poor healthcare experience, avoidable ill-health and increased need for healthcare services, both in the short-term and in adult life. This article aims to guide paediatricians in answering the questions 'How well are the public health and clinical needs of the adolescent population in my area being met? And how can we improve?'

Introduction
Adolescence and young adulthood is a critical stage in the life-course, when lifelong health-related behaviour and attitudes can be established[1-4] and in which mortality and morbidity have improved much more slowly in recent decades than for other age groups.[5, 6] Paediatricians have a key role to play in ensuring a holistic, integrated approach is taken to meet adolescent health needs at local, national, and international levels. There is increasing evidence that failure to do so can lead to avoidable ill-health and increased need for healthcare services, both in the short-term and in adult life.[7, 8] This article aims to guide paediatricians in

answering the questions 'How well are the public health and clinical needs of the adolescent population in my area being met? And how can we improve?' Although much of the material relates to the UK, we hope that this article may also be of interest to those working in other countries.

First, some key public health concerns for young people living in the UK are described. We then illustrate the relevance of these concerns to paediatric clinical practice (whether generalist or sub-specialist; hospital or community-based) using the three domains of public health (see Box 1). The first domain - ensuring the delivery of high-quality healthcare services for adolescents – will be relevant to the majority of practicing paediatricians. Many paediatricians will also have a strong interest in the other domains relating to health protection (for example outbreaks of infectious disease, or safeguarding procedures), and health improvement (addressing social determinants of health and health-related behaviours). Lastly, we consider advocacy for adolescent health and wider contributions that paediatricians often take on.

The need to act

Adolescence is an opportunity to consolidate the impact of health improvement interventions earlier in life and a second chance to intervene to prevent early physical or mental health needs having a life-long health impact. Recognising the importance of this stage of the life-course, the WHO has declared the health of young people to be a global public health priority.[1]The UK performs poorly in addressing many key health issues for this age group. All-cause mortality has declined much more slowly among adolescents than younger children, and is now higher than for any stage of childhood outside the neonatal period.[5] Adolescent mortality in the UK has also failed to match the gains seen in other countries, with relatively high mortality in the UK from neuropsychiatric conditions (including suicide and epilepsy) and endocrine causes (such as diabetic ketoacidosis).[5]

Adolescence is a particularly important time in the life course for addressing mental health, sexual health, weight disorders and many long-term conditions. Around 75% of lifetime mental health disorders present before 18 years,[3] but there are often high levels of unmet need and long delays in accessing services, which increases the risk of ongoing mental health problems in adulthood.[8] Outcomes of many long-term conditions are worse during adolescence and young adulthood than other stages of the life course: for example diabetes control is worse than in either children or older adults.[3]

Adolescents account for a greater proportion of healthcare activity and spending than is often realized. However, this activity is spread across many different specialities resulting in the needs of this group being inadequately addressed.[11] One recurring concern is the quality of care during transition from paediatric to adult services.[3, 4] Another issue is that children and young people's rights – including the right to participate in decisions affecting them – are often not met.[12] When asked, they report the poorest experience of NHS services of any age

group.[13] In turn, poor experience and failure to listen to young people's views can lead to disengagement with health, avoidance of health services, and poorer health outcomes.[12]

Lastly, five of the top ten risk factors for adult disease burden are largely established in youth.[3] The success of strategies to limit the harm from smoking, alcohol, obesity, physical inactivity and unsafe sex depends on effective prevention and early intervention in adolescence and early adulthood. Interventions that improve the health of adolescents can have the dual advantage of improving the health of the next generation (for example, through pre-conception care).[3]

While this article focuses on young people in the UK, many of the issues described above are mirrored globally. The 2016 Lancet Commission on Adolescent Health and Well-Being provides a comprehensive review of the health issues faced by young people in different parts of the world, as well as highlighting a range of legal reforms, education strategies and engagement initiatives which have been successful in other countries and may offer important lessons for the UK.[2]

What is the role of paediatricians?

Ensuring high quality health services for adolescents
Perhaps the most direct public health role of paediatricians is in monitoring and optimising the quality of health care services for adolescents. For example, opportunistic screening in both primary and secondary care is often neglected, but is key to identification and early intervention in a wide range of common adolescent issues, including over/underweight, mental health problems, substance misuse, and unsafe sex. Care quality can also have a significant impact on outcomes in long-term conditions. For example, a dramatic decrease in the rate of graft loss was seen when a dedicated clinic was introduced for young people who had received kidney transplants.[7]

This article does not aim to duplicate existing published guidance on improving the quality of consultations with individual adolescents.[14] Rather, the focus is on best-practice standards for developing and assessing the quality of health services for adolescents, using the '*You're Welcome'* (YW) framework (see Box 2).[1] This is a flexible, validated tool that is applicable to any NHS service treating young people; it is designed to support young people and/or staff (ideally both together) to assess service quality, identify specific weakness and develop a plan for improvement.[1, 15] *You're Welcome* provides a validated framework within which to address a range of regulatory and inspection requirements relating to age/developmentally appropriate care and partnership working with young people. One example of the use of YW criteria to improve service quality is described in Box 3. However, priorities for young people will vary depending on the setting and context – the core of the YW approach is that assessment and action are guided by views of the young people using the services.

Health Protection
Young people aged 15-24 years account for the highest number of sexually transmitted infections in the UK. Box 4 illustrates the advantages of joining up general paediatric and sexual health services for adolescents.

Other infectious diseases remain an important cause of mortality and morbidity in this age group – notably Meningococcal subtypes C and W, which show a persistent peak between the ages of 16 and 21. The Human Papillomavirus Vaccine (HPV) (offered to all girls aged 12-13 years) is a key intervention to reduce the incidence of cervical cancer in later life.

A broader view of health protection for adolescents might include protection against a range of health risks, including sexual exploitation or physical abuse[16], pressures around body image and exam performance and a range of modern risks to physical or mental health, such as cyberbullying.

Health improvement
Health improvement covers a broad range of social determinants of health and health-related behaviours that are relevant to paediatric practice. Poverty is an important determinant of poor health outcomes during adolescence, as well as influencing smoking, obesity and other risk factors for poor future health. For example, among young women, deprivation is linked to higher rates of teenage pregnancy and a greater risk of delivering babies who have low birth weight or who need admission to a neonatal unit.[4] Despite a well-funded national inequalities programme, there was little change in adolescent health inequalities from 1999-2009,[17] and there is increasing concern about the impact of austerity programmes that many governments are implementing in response to the global financial crisis. [18]

Many paediatricians also have wider responsibilities for addressing other social determinants of health - for example, working with schools to optimize educational and health outcomes for those with additional needs, or monitoring the health of specific vulnerable groups such as looked after children. Lastly, many paediatricians take on leadership roles in public health strategies, from a range of national roles to working with funders and providers of health services at local level. Box 5 illustrates the interacting influences of biological, social and economic factors on disease presentation in vulnerable populations, and the need to take a holistic approach if care is to be effective.

The positive message is that adolescence is a time of transition and thus a cost-effective time-period to target interventions that can be effective in influencing behaviour and life choices before these become established. Impressive progress has been seen in some areas of adolescent public health: smoking rates among adolescents in England have fallen dramatically in the last 20 years, and teenage

pregnancy rates have more than halved.[4] However, obesity rates remain stubbornly high; data from the 2013 National Child Measurement Programme show that 19% of 10-11 year olds in England were obese, ranging from 25% to 13% in the most vs. least deprived deciles.[4]

Advocacy for young people's needs

Using a rights-based approach, paediatricians can advocate for improvements in the care of adolescents they see, and for improvements in the health and well-being of all adolescents by addressing determinants of health.

As shown in Box 5, paediatricians have an important role in advocating for the health and wider needs of their patients, particularly for vulnerable groups who may be less able to speak out for themselves. Working with other health professionals and public health colleagues, paediatricians can influence decisions by bodies responsible for commissioning and developing services for young people, and ensure that the distinct needs of adolescents are addressed.

Nationally, paediatricians have also been at the forefront of highlighting the impact of government policies on young people.[18] The importance of paediatricians highlighting individual and population level effects of policy decisions cannot be over-estimated. Paediatricians also have other important roles to play in ensuring a health service culture that respects and engages young people and in supporting national health campaigns, such as the recent taxation proposals for sugar.[19]

Recommendations

Policy: Policy makers should support greater awareness and implementation of existing guidance about the needs of young people. Policies should ensure that the voices of young people are heard and that historically neglected areas such as mental health and health inequalities are addressed. Equally important is action to address the determinants of adolescent health outside the health sector –for example policies relating to schools, access to high quality education, employment and training after leaving school, housing, social security policies, and protection of vulnerable groups such as looked after children.

Research: Future research should investigate further the consequences of unmet healthcare needs in adolescence, and how the evolving needs of this group can be met. One important emerging theme is a move towards thinking about developmentally appropriate healthcare for adolescents, rather than just considering chronological age.[20] In turn, this work should inform the development of innovative new care models, which exploit the opportunities offered by new technologies and new understandings of social and peer effects on adolescents behaviour and decision-making, in order to improve engagement, patient experience, and health outcomes.

Professionals: Priorities for paediatricians and other professionals will depend on the population they serve. Some suggestions for immediate action are

- Assess your service against the *You're Welcome* quality standards for young people friendly care,[1] and/or the NICE guidance on transition.[10] Make a plan to address any concerns that are raised.
- Take advantage of training opportunities such as the Special Interest (SPIN) and MSc modules in adolescent health or join the RCPCH Young People's Health Special Interest Group (www.yphsig.org.uk) to share experiences with others working to improve adolescent health across the country.
- Strengthen links with your local public health department.
- Establish or make links with local or national groups of young people who are interested in improving health. Work in partnership to address their health priorities – whether improving local health services or advocating on wider issues.

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Box 1: Definition and scope of adolescent public health

Adolescent: 10-19 years
(7.4 million adolescents = 11.4% of the UK population)
Young person: 10-24 years
(11.7 million young people = 18.1% of the UK population)

Public Health
*'The science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society.'**

Three key domains of public health practice

1. **Improving services**
   - Clinical effectiveness
   - Efficiency
   - Service planning
   - Audit and evaluation
   - Clinical governance
   - Equity

2. **Health Protection**
   - Infectious diseases
   - Chemicals and poisons
   - Radiation
   - Emergency response
   - Environmental health hazards

3. **Health Improvement**
   - Inequalities
   - Education
   - Housing
   - Employment
   - Family/community
   - Lifestyles
   - Surveillance and monitoring of specific diseases and risk factors

*http://www.fph.org.uk/what_is_public_health (accessed 1st June 2016).

Box 2: *You're Welcome* - Quality criteria for young people friendly health services [1]

1. Accessibility
2. Publicity
3. Confidentiality and consent
4. Environment
5. Staff training, skills, attitudes and values
6. Joined-up working
7. Young people's involvement in monitoring and evaluation of patient experience
8. Health issues for young people
9. Sexual and reproductive health services
10. Child and adolescent mental health services

Two key sections for getting started:

Theme 7: Involvement of young people in monitoring and improving services

Central to the YW standards is age/developmentally appropriate, non-tokenistic participation of a diverse range of young people who use the service. They have a key role in assessing the strengths and weaknesses of current services and identifying how services could be improved. Advice and practical support in doing this is available in previously published guidance from the RCPCH.[9]

Theme 8: Health Issues and Transition for Young People

This theme emphasizes the importance of taking a holistic approach to improving young people's health. Services should aim to addresses health concerns in the context of patients' wider needs and priorities, and take every opportunity to promote healthy lifestyles, identifying and addressing health concerns and risk behaviours early. More detailed guidance on how to improve care during transition to adult services is available from recently published NICE guidance.[10]

Box 3. Case study of using the *You're Welcome* standards to improve care for adolescents in a children's hospital

The adolescent medicine team at Great Ormond Street Hospital, London, undertook a Trust-wide project to self-assess the young person friendliness of all relevant services, supported by the Clinical Audit Department and Transformation Team.*

All 32 wards and departments where adolescents were cared for were assessed against the eight core '*You're Welcome'* criteria. Two wards were also assessed against specific criteria for targeted and specialist CAMHS services. Assessments took the form of ward inspections, interviews with appropriate staff and a review of ward and health information on the hospital website. Overall, the Trust was self-assessed as meeting *You're Welcome* in 9/38 standards, Getting there in 11/38, Not yet started in 14/38, not applicable 4/38.

Ward –level reports were shared with staff, who were supported to address concerns that had been raised. Examples of small changes that were made at ward-level include the paediatric intensive care unit involving young people more in their own care and taking steps to give them more privacy.

For most criteria, it was clear that a Trust-wide response was needed. Working with the Young People's Forum, five priority areas were identified: transition, age-appropriate information, age-appropriate facilities, young people's involvement in service evaluation/improvement, and staff training in communication, confidentiality and consent. These informed Trust strategic priorities and resulted in a number of practical changes, including:

- improving transition to adult services was identified as a Trust CQUIN target for the following year
- the Young People's Forum became involved with work to make the new reception area and restaurant more young person friendly, resulting in the provision of a dedicated area for young people
- nine 'Easyread' advice sheets were published with input from the Health Information and Language manager.

*http://www.gosh.nhs.uk/about-us/our-priorities/quality-improvement/our-progress/improving-adolescent-care-youre-welcome (accessed 1st June 2016)

Box 4. Case study of a community-based service offering integrated adolescent and sexual health care

A 15 year old girl was referred to a Young Persons clinic within the Contraception and Sexual Health Service with genital 'lumps'. She was seen by a Consultant Community Paediatrician who diagnosed genital warts. At the same time a urine pregnancy test was negative and she was offered screening for other sexually transmitted infections; a self-taken swab for Chlamydia and Gonorrhoea and a blood test for HIV, Hepatitis B and Syphilis.

She had had unprotected sexual intercourse 3 days previously and was prescribed EllaOne, Hormonal Emergency Contraception (HEC). Condoms were given with advice on how to use them and verbal and written information regarding contraceptive options. A 3 week follow up appointment was made for a repeat urine pregnancy test and to discuss ongoing contraception.

The screening swab was positive for Chlamydia but negative for Gonorrhoea, HIV, Hepatitis B and Syphilis serology was also negative. A stat dose of Azithromycin 1gm was given in clinic with advice that her 15 year old boyfriend should be screened and treated.

NATSAL 3 (The National Survey of Sexual Attitudes and Lifestyle) 2010-2012*) showed that 29% of young women between the ages of 16-24 years reported having sex before the age of 16 years and therefore opportunistic sexual health promotion by paediatric services should be encouraged. Where possible, a one-stop shop where STI screening and contraception services are available on-site has been shown to improve patient experience and likelihood of engaging with services. Where this is not possible, written information should be given on how to access local sexual health services.

Opportunistic screening may be particularly important for chlamydia where many infections are initially asymptomatic, but the risk remains of future problems including pelvic inflammatory disease, ectopic pregnancy and tubal factor infertility in women and epididymitis in men. In 2014, over 1.6 million chlamydia tests were carried out and almost 138,000 chlamydia diagnoses were made in England among young people aged 15 to 24 years old.

*www.natsal.ac.uk (accessed 1st June 2016).

Box 5. Case study illustrating the links between infectious disease and social determinants of health

A 15 year old boy entered the UK as an unaccompanied asylum seeker, having left Eritrea seven months previously. He travelled mostly in a truck with about 50 adults via Ethiopia and Sudan but then was unsure of the route taken. He presented in the UK with a one-month history of cough, fever and lethargy. He had an abnormal chest examination, his Mantoux and Quantiferon tests were positive and his chest radiograph was abnormal. He was found to have sputum culture positive, fully sensitive pulmonary tuberculosis and was commenced on treatment. His address changed three times during the six month treatment period, finally to a 'supported living accommodation' with three other young people with minimal guidance or supervision on finance and nutrition.

Tuberculosis is an important public health issue for adolescent refugees arriving from TB endemic countries and it is vital that adequate supportive services are in place for screening and continued management as part of a timely and holistic health assessment. Paediatricians have key roles to play in diagnosing TB and ensuring that effective treatment is not compromised by social factors such as changes in address, poor housing, or overcrowding. NICE guidance states that immigrants from TB endemic areas should be screened for TB and the new collaborative TB strategy has made extra funds available for this but has specifically excluded under 16 year olds from the cost-effectiveness analysis of new immigrant TB screening*; no additional funding is available for screening of this vulnerable group.** However, with proactive local advocacy and communication with primary care, it is possible for new immigrant children, especially refugees, to be seen in paediatric clinics for screening for TB and other infectious diseases.

* https://www.nice.org.uk/guidance/ng33 (accessed 1st June 2016)
** https://www.gov.uk/government/publications/collaborative-tuberculosis-strategy-for-england (accessed 1st June 2016)

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