

Elective Report: Paediatrics in US vs UK

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What are the prevalent paediatric conditions in the US and how do they differ to the UK?

We carried out our elective in a pediatric clinic in Washington DC which was a similar area compared to London in terms of climate and wealth.

The time period we were carrying out our elective coincided with the beginning of summer in the United States, this meant there was increased pollen in the air during that time which led to children's allergies being worsened which made up most of the consultations that we were involved in. Many children came in with cold like symptoms, runny nose, itchy eyes, worsening eczema and shortness of breath. They were treated with advice not to go outside after 4pm when the pollen count is at its highest and a short course of oral steroids and inhalers to help alleviate their symptoms. Hay fever and other atopic conditions are also very common in the UK. During my paediatric rotation I saw many children with asthma and eczema which was also worsened during the summer months. Other common conditions in the UK are diabetes and even though we did not see many children with this condition during our time, the doctor told us it is very common to the increased childhood obesity problem they have in the US.

Routine vaccinations also took up a bulk of the consultations as well. The timetable for childhood vaccinations for the UK and US are given below:

United States Vaccine Schedule: 2014 ^{[30][31]}																	
Vaccine	Bir th	1 mo nth	2 mo .	4 mo .	6 mo .	9 m o.	12 m o.	15 m o.	18 mo.	1 9- 2 3 mo	2-3 yrs	4-6 yrs	7-10 yrs	11 -1 2 yrs	13-1 8 yrs		
<u>Hepatitis B (HepB)</u>	1st	2nd							3rd								3 doses
<u>Rotavirus</u>			1st	2nd													
<u>Diphtheria, pertussis, and tetanus</u>			DTaP	DTaP	DTaP				DTaP			DTaP			Tdap		Td (every 10 ye
<u>Haemophilus influenzae type b (Hib)</u>			1st	2nd				3rd or 4th									1 or 3 doses

<u>Pneumococcal</u>			1st PCV	2nd PCV	3rd PCV	4th PCV											PPSV				
<u>Polio vaccine, inactivated (IPV)</u>			1st	2nd	3rd					4th											
<u>Influenza</u>						Annual vaccination (IIV only)				Annual vaccination (IIV or LAIV)											
<u>Measles, mumps, and rubella (MMR)</u>						1st				2nd							1 or 2 doses				
<u>Varicella (chickenpox)</u>						1st				2nd											
<u>Hepatitis A</u>						2-dose series															
<u>Meningococcus</u>																		MCV	Do se 1	Boo ster at 16	1 or more doses
<u>Human papillomavirus vaccine</u>																				3 doses	3 doses ¹

United Kingdom Vaccine Schedule: 2013^[25]

Vaccine	2 mo.	3 mo.	4 mo.	12 mo.	3-4 yrs	12-13 yrs	13-18 yrs
<u>Diphtheria, pertussis, and tetanus</u>	DTaP + IPV +	DTaP + IPV +	DTaP + IPV +		DTaP + IPV		Td + IPV
<u>Polio vaccine (inactivated)</u>	Hib	Hib	Hib				
<u>Haemophilus influenzae type b</u>				Hib + MenC			
<u>Meningococcus</u>		MenC					MenC (13-15)
<u>Rotavirus (from July 2013)</u>	Rotavirus	Rotavirus					

<u>Pneumococcal</u>	PCV		PCV	PCV			
<u>Measles, mumps, and rubella</u>				MMR	MMR		
<u>Human papillomavirus vaccine</u>						HPV x3 ¹	
<u>^1.</u> Females only 3 vaccinations over 12 months							

There are some differences with the immunisation schedule. Firstly in the US all children are given a Hep B vaccine at birth, compared to the UK where only high risk babies such as those who are born to infected mothers are given this vaccine. Also the varicella vaccine which has been in use in the states since 1995, this is not currently given in the United Kingdom. The doctor administered all the vaccines himself through out our time there. This is different compared to the UK where most vaccinations are carried out by nurse practioners in the General Practice. In the States schools will not allow children to attend/join a school unless they are up to date with their immunisation schedule. They must have proof from their doctor with a form showing they have completed the necessary immunisations needed for their age group before they are permitted to start. This is not the case in UK, even though it is strongly advised that parents make sure their children are vaccinated, they will not be denied entry into school if they choose not to comply.

How are the pediatric services organized in the US and how does it differ from the UK?

The way healthcare is organized is vastly different to the UK due to the use of a private healthcare system. Each child will need medical insurance to be seen by a doctor. When a child is unwell or needs medical attention for whatever reason they go straight to their registered paediatrician which is up to the parents' choice who they wish to have as their registered doctor. The paediatrician is the first port of call for the child and the doctor will decide what happens if they need to be admitted into hospital or referred onto a different specialty or they can be treated in the clinic and sent home. They need to have up to date healthcare insurance to be seen by the doctor. The receptionist who checks the patients personal information when they first enter must also make sure they have the required medical insurance by checking their records or phoning up the necessary insurance companies. Public programs provide the primary source of coverage for most seniors and also low-income children and families who meet certain eligibility requirements. Medicaid provides healthcare for those families who are on very low income.

This is different in the UK, if a child is unwell their first port of calls include their general practitioner if it is a more minor illness and accident & emergency if it is a more serious medical problem. The general practitioner is not a specialist in paediatric illness but will have some knowledge in the area of common ailments. The general practitioner will assess the child and if they feel that the problem is out of their medical expertise only then will they refer them on to a paediatrician. This can take a few months to occur for non-urgent medical problems. The paediatrician will then assess the child in their own clinic and decide what to do- whether they need to be admitted, followed up in their outpatient

clinic or they can be discharged back to their GP. The American system essentially cuts out the middle person and makes it easier for patients to get appropriate medical attention fast. In the United Kingdom healthcare is free with the NHS so they do not require healthcare insurance to see a doctor or to receive treatment. There is also a private healthcare system in the UK where patients can choose to pay for their healthcare but it is a choice and most patients do use the free NHS.

Understand and Investigate the prevalence of childhood obesity in the USA? To investigate any public health strategies if any in place to deal with childhood obesity?

Childhood obesity has doubled in children in the past 30 years. The percentage of children obese has increased from 7% in 1980 to 18% in 2012. The percentage of adolescents who are obese has increased from 5% to 21% in the same time frame. In 2012 more than one third of children and adolescents are obese or overweight.

One out of six children is obese, and one out of three children is overweight or obese. Obesity can lead to a vast number of complications including cardiovascular disease, diabetes, and death. There has been many public health strategies to help parents, students and teachers to help tackle the problem.

The centers of disease control and prevention have published guidelines for schools to help improve dietary and physical activity behaviors in children and adolescents. The guidelines are as follows:

1. Use a coordinated approach to develop, implement and evaluate healthy eating and physical activity policies and practices.
2. Establish school environments that support healthy eating and physical activity
3. Provide a quality school meal program and ensure that students have only appealing healthy food and beverage choices offered outside of the school meal program.
4. Implement a comprehensive physical activity program with quality physical education as a cornerstone.
5. Implement health education that provides students with knowledge, attitudes, skills and experiences needed for lifelong healthy eating and physical activity.
6. Provide students with health, mental health and social services to address healthy eating, physical activity and related chronic disease prevention
7. Partner with families and community members in the development and implementation of healthy eating and physical activity
8. Provide a school employee wellness program that includes healthy eating and physical activity services for all school staff members.
9. Employ qualified persons, and provide professional development opportunities for physical education, health education, nutrition services and health, mental health, and social services staff members as well as staff members who supervise recess, cafeteria time and out of school time

programs.

Michelle Obama also has started an initiative in 2010 which focuses on tackling childhood obesity. Its goals include the following:

- Creating a healthy start for children
- Empowering parents and caregivers
- Providing healthy food in schools
- Improving access to healthy, affordable foods
- Increasing physical activity

It has achieved great success with popular companies such as Disney and Birdseye helping the initiative in promoting healthy eating.