CAHRU: Advancing the debate on child and adolescent health

The Child and Adolescent Health Research Unit (CAHRU) in the School of Medicine at the University of St Andrews has grown a reputation for pioneering research into improving child and adolescent health. This has not gone unnoticed and, in 2013, the World Health Organization designated the School of Medicine as their international collaborating centre for child and adolescent health policy. We spoke to **Dr Jo Inchley**, who told us how important this partnership has been for advancing child and adolescent health research.

ince being founded at the turn of the millennium, CAHRU has quickly established itself as one of the leading, global institutions within child and adolescent health research.

Their work focuses on promoting health among children and adolescents at local, national and international levels, by monitoring the behaviour, health and wellbeing of children and young people.

Fast-forwarding 13 years, WHO recognised CAHRU's pioneering work, and designated them as their collaborating centre within this field of research back in 2013.

An important element of this partnership is CAHRU's role as the International Coordinating Centre of the Health Behaviour in School-aged Children (HBSC) World Health Organization Collaborative Cross-national Study which incorporates 45 countries across both Europe and North

Research Features recently sat down with Dr Jo Inchley, the Assistant Director of CAHRU, to discuss this collaboration further, highlighting the partnership's impact on child and adolescent health research, particularly within the HBSC

What does your role involve as Assistant Director of the Child and Adolescent Health Research Unit (CAHRU) at the University of St Andrews?

My role is quite diverse. Within CAHRU, I am involved in developing new research ideas, managing existing projects, as well as the strategic direction and longterm sustainability of the Centre. Within the wider School of Medicine, I sit on the Research Ethics Committee, contribute to teaching and supervise undergraduate and postgraduate students.

I am also International Coordinator for the Health Behaviour of School-aged Children (HBSC) Study, a large cross-national study of adolescent health and wellbeing, conducted in collaboration with WHO. I have overall responsibility for the scientific leadership of the study and coordination for our network activities.

Could you tell us some more about CAHRU's background and the kind of research that is done there?

CAHRU was established in 2000 by the current Director, Professor Candace Currie, as a specialist research centre to undertake research into the health of young people from early childhood to late adolescence. The Unit moved to the School of Medicine at the University of St Andrews in 2011 and currently comprises 12 staff in academic, research, specialist and research administration roles. CAHRU hosts the HBSC International Coordinating Centre which provides scientific leadership and support to the HBSC international network of over 350 adolescent health experts from 45 countries in Europe and North America. This includes experts from a wide range of disciplines such as clinical medicine, epidemiology, biology, paediatrics, pedagogy, psychology, public health, public policy, and sociology. The

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study therefore enables cross-fertilisation of a range of perspectives that has resulted in an innovative scientific framework which captures the contextual environment in which young people live thus allowing us to gain an insight into determinants and possible mediators and moderators of young people's health.

Our research aims to improve understanding of child and adolescent health in Scotland and globally, through collecting primary data on health, health behaviours and their social determinants, monitoring trends, designing and evaluating effective interventions, and using the evidence gathered to influence policy and practice. We study young people's health in the context of: biological and other developmental processes associated with puberty; social inequalities stemming from family, school, neighbourhood, gender, age, and social-economic conditions; local and national services and policies; school as a setting for health promotion; and international comparisons.

In 2013 the World Health Organization designated the University of St Andrews School of Medicine as its Collaborating Centre for International Child and Adolescent Health Policy (WHO CC). Could you tell us some more about this? How did this collaboration first come about? The designation resulted from a successful collective effort within the population and behavioural sciences group in the School of Medicine to bring international distinction to the School and the University. Professor Candace Currie and Aixa Aleman-Diaz, from our team in CAHRU, led this effort to further our relationship with the WHO European Regional Office in Copenhagen, with a unique focus on child and adolescent health policy. This prestigious appointment endorses the international aspect of our research and evidence-based policy work.

The WHO CC's workplan brings together three independent research teams within the School under a common vision to improve child and adolescent health worldwide. This vision is achieved through several strands of work related to social determinants of health and prevention of health inequalities, reduction of youth violence, and prevention of risk behaviours, such as drug use. The WHO CC has been a leading partner in increasing HBSC's policy footprint, and aims to increase the School's impact and influence in the international

arena, especially through building links with leading policy-making bodies. Its focus is to enhance the School's knowledge transfer efforts, specifically to advance the debate on adolescent health.

Which areas of child and adolescent health research are CAHRU currently working on? We have just undertaken a major review

of the HBSC international protocol in preparation for the next survey round in 2017/18 and are finalising topics for inclusion in the Scottish survey. We try to hold in balance the need to remain current in terms of addressing new and evolving priorities in adolescent health whilst retaining important trend data over the last 25+ years.

We are working with WHO on a new report on Childhood Obesity, highlighting international trends in inequalities in obesity, eating behaviours, physical activity and sedentary behaviour.

The report will be published as part of the WHO Health Policy for Children and Adolescents (HEPCA) series and will be used to make the case for action on obesity among European member states. We are also collaborating with UNICEF on the latest in their series of Report Cards which focus on the wellbeing of children in industrialised countries. This builds on successful previous collaborations which used HBSC data to highlight inequalities in children's health and

Our work also includes evaluations of interventions. For example, CAHRU staff are currently collaborating on a large-scale longitudinal study assessing the impact of measures in The Tobacco and Primary Medical Services (Scotland) Act 2010 on young people's exposure to tobacco advertising, their attitudes towards smoking and ultimately their smoking behaviour. CAHRU is leading one of four research strands involving an annual survey of secondary school children in selected communities within Scotland.

From a more personal perspective, what are your main research interests within child and adolescent health?

Broadly speaking, I am interested in social determinants of health, health inequalities and international comparisons in young people's health. Much of my work has focused on physical activity and sedentary behaviour, nutrition, school health and health promotion. Currently, I am very interested in



mental health which is emerging as one of the most pressing public health concerns for adolescents today. Recent HBSC findings, for example, have shown marked increases in mental health issues particularly among older adolescent girls, which may be linked to issues such as academic pressure and social media use. Understanding the reasons for these trends is essential to informing effective prevention strategies. I am also working with international colleagues on some relatively new areas within HBSC such as spiritual health, disability and chronic conditions, stress, and sleep.

What impact do you think CAHRU has had on child and adolescent health research since it was first established in 2000?

Through both the HBSC International Coordinating Centre and WHO Collaborating Centre, CAHRU has played a leading role in raising awareness of child and adolescent health within Scotland and internationally,

furthering our understanding of the social determinants of health and health inequalities, and promoting evidenceinformed policy and practice. In Scotland, we work closely with national funders and partners such as NHS Health Scotland to ensure that our research is used to inform policy development. Examples include the Scottish Physical Activity Strategy 'Let's Make Scotland More Active' (2003), the Schools (Health Promotion and Nutrition) (Scotland) Act 2007, and the Scottish Government's Pregnancy and Parenthood in Young People Strategy 2016-2026.

Internationally, HBSC provides a unique dataset on adolescent health and findings from the study are widely used by national governments and international agencies such as WHO, OECD and UNICEF. In collaboration with WHO, CAHRU initiated a series of WHO/ HBSC Forums to maximise the use of HBSC data across Europe, to promote discussion

While there have been some recent positive trends in adolescent health, such as reductions in drinking and smoking, key challenges remain. These include non-communicable diseases, obesity, sedentary lifestyles and mental health among international partners and to facilitate the translation of research findings into effective policy-making and practice.

Most recently, HBSC data were presented at the WHO European Ministerial Conference on the life-course approach in the context of Health 2020, held in Belarus in 2015. HBSC data also informed the development of Investing in Children: the European Child and Adolescent Health Strategy 2015-2020 and are being used to monitor implementation of the strategy across WHO European member states.

Why is advancing the debate on child and adolescent health so important and how does CAHRU go about doing this?

Adolescence is a critical transitional period including biological changes associated with puberty and the need to negotiate key developmental tasks, such as increasing independence and normative experimentation. Adolescence is also the time in which many behavioural patterns are established which help to determine not only their current health status but also future health outcomes.

Although it is generally considered to be a healthy stage of life, several important social or public health problems start or peak during the adolescent years, such as substance use, mental ill health, sexually transmitted

infections and teenage pregnancy and other health indicators worsen such as eating habits, physical activity and stress.

CAHRU has a strong emphasis on translation in all our research. Since our inception in 2000, CAHRU has invested in dissemination and knowledge-exchange activities designed to reach and engage policy makers, programme developers, schools and young people, as well as academic audiences. Good research alone is not a lever of change until it becomes an integral part of the policy discourse; in St Andrews we are aiming to make sure our research affects the way we as a society think, talk and invest in the health of our young people.

Do you think research on child and adolescent health receives as much funding and attention as it should?

Recent international publications have highlighted the importance of the "second decade" as a critical stage of life course, including UNICEF's State of the World's Children report in 2011 and their report card on adolescents in 2012, the Lancet series on adolescent health in 2012 and the WHO Health of the World's Adolescents Report in 2014. Globally, we've seen huge progress in the early years, such as a reduction in the under-5 mortality rate, but this has led to a shift in mortality and disease burden from childhood to adolescence.

Adolescents now make up more than a quarter of the world's population but the health of adolescents has improved less than that of younger children over the past 50 years. As a result there has been a call for greater investment in the adolescent years to protect public health investment in early child development and help rectify problems arising during the first decade.

Many of the research teams involved in HBSC are facing funding difficulties due to lack of available research funding at national level. Investment in child and adolescent health requires investment in research to provide reliable data to underpin evidence-based policy making.

How do you see the landscape of child and adolescent health changing over the next ten years?

Improvements in child health are likely to continue, and it is important that these gains are not lost during the adolescent years. While there have been some recent positive trends in adolescent health, such

as reductions in drinking and smoking, key challenges remain. These include noncommunicable diseases, obesity, sedentary lifestyles, and mental health.

There is also a need for better understanding of the impact – both positive and negative - of digital technologies, and social media in particular, on young people's health and wellbeing. Tackling health inequalities must remain a top priority. Targeted interventions are needed to reduce the social gradient in health and improve opportunities and outcomes for the most disadvantaged groups of young people. This can only be achieved through intersectoral action addressing the social, economic and environmental determinants of health.

Global initiatives such as the new Lancet Commission on Adolescent Health can help ensure that young people's voices are heard and effective action is taken to address their

I hope that young people themselves will also have an increasing role to play in shaping policies and programmes which affect their

• If you would like to keep up to date with the latest developments from the HBSC study, please visit the HBSC website at www. hbsc.org. Further information about the WHO Collaborating Centre is available at www.whoccstandrews.org.



Unit, University of St Andrews Medical and Biological Sciences Building North Haugh, St Andrews

KY16 9TF

E: cahru@st-andrews.ac.uk **T:** +44 (0)1334 461732 W: http://www.cahru.org/







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