the Thames Valley region (including London), in particular in older school buildings, while the lowest concentrations were found in the newest schools in Wales. In general, the large regional variations predominantly reflect differences in ambient levels of NO₂. There were correspondingly large variations in the estimates of current asthma incidence between regions, with the highest estimates in regions of southern and south-eastern England. Improving energy efficiency (for example, by installing wall insulation and improved glazing) would increase the airtightness of school buildings, reducing air exchange with the outdoors and reducing the amount of ambient air pollution entering school buildings. Compared to current levels, estimated NO₂ concentrations in schools were therefore reduced under scenarios of improved energy efficiency and climate change, with greater reductions in exposure achieved by more ambitious energy efficiency targets. Modelled asthma incidence cases in schoolchildren were correspondingly reduced in all regions by increasing the energy efficiency of schools.

Conclusion This study emphasizes the importance of the indoor environment in schools on childhood asthma. The research also shows that improving the energy efficiency of schools is likely to have benefits for childhood asthma by protecting children from harmful outdoor air pollutants. The findings from this study make several contributions to fill the knowledge gap about the impact of retrofitting schools on internally generated pollutants and their effects on health.

SUSTAINABLE HEALTHCARE CLIMATE ACTION THROUGH NETWORKING, SUPPORTING AND LEARNING

Aims The aim of the project was to create a supportive platform for discussion and action around sustainability in healthcare by setting up a multi-disciplinary health board green network to allow members to develop and share knowledge, improve skills, and develop sustainability projects in the health board (HB) and local area.

Methods Staff members interested in sustainability in the HB were identified and added to a teams channel, members made owners of the team to enable them to add colleagues independently. A HB group email address was set up and an initial teams meeting arranged. The format for the meeting was; introductions, the purpose of the group, compassionate collective leadership principle ground rules, information on what was happening nationally and within the HB, the HB sustainability action plan and the communications strategy.

The second half of the meeting concentrated on gaining feedback from the group. This included projects underway and prospective, barriers and challenges faced. As well as change ideas for the Green group.

The group was also publicised via the HB intranet and website. PDSA cycles which included the measuring number of members of the group once per month were undertaken. Change ideas were created using collaborative feedback from Green group members.

Results Initially the group started with 33 members of staff from many different staff groups across the hospital including executives, estates, waste, medical staff, nursing staff and therapies.

In PDSA cycle one, the first meeting was held which was attended by 26 members of staff. In PDSA cycle 2 the number of members rose to 45. In PDSA cycle 3, this rose to 71 members.

Numerous resources for sustainable practice have been shared with the group.

Individual sub specialty communities of practice are developing as part of the green group to tackle specific projects and issues.

The projects identified from the first meeting included 8 clinical, 4 waste, 1 transport, and 3 biodiversity.

Barriers identified from feedback included themes around time, resources, knowledge and support in their departments. Many prospective projects were identified.

Planned change ideas for the future green group events and team channel include; having regular non hierarchical meetings, sharing best practice and case studies, Q and A sessions and sustainable healthcare education sessions.

Collective climate leadership was shown via communication with the HB leadership team of the barriers to sustainable practice in healthcare, advocating for supporting staff to be trained in sustainable QI, advocating for the embedding of sustainable QI into the HB QI methodology.

Conclusion The climate crisis is a health crisis. Urgent action to increase the sustainable value of healthcare is needed by maintaining high quality care underpinned by financial, social and environmental value.

This project shows that with compassionate collective leadership we can support each other on the challenging journey and advocate for the transformation of our health services so that we can provide sustainable care to our future generations. Healthcare professionals as one of the most trusted professions can be a lever for the change we need to see in the rest of society.
included in the assessment of children’s development. This study’s main aim was to explore practitioner’s views regarding the use of the Griffiths Scales of Child Development-3rd Edition (Griffiths III) as a measure of children’s development. The Griffiths III has been researched and used in countries such as Australia, Brazil, Canada, China, Columbia, France, Germany, Greece, Israel, Italy, Kenya, Lebanon, Malaysia, Namibia, Nigeria, Norway, Portugal, Russia, South Africa, Switzerland, United Arab Emirates, and the United States of America.

Methods A qualitative methodology with an exploratory-descriptive design was employed. A questionnaire was created by the ARICD and distributed to the registered practitioners of the Griffiths III. The 175 questionnaires were returned to the ARICD from 12 countries and were evaluated using thematic analysis to extract themes.

Results The Griffiths III was found to provide valuable diagnostic information about a range of developmental disorders in a wide variety of contexts across various countries. The results also have implications for practitioners as they suggest that the Griffiths III as a measure creates opportunities to minimise the impact of climate-and environmental-related distress on the development of children through the power of a community of practitioners having a holistic focus on developmental assessment.

Conclusion The Griffiths III community offers a format for moving forward on this work by focusing on approaches that are ecological, community centred, locally based, preventive, focused on systems change and empowerment, and multidisciplinary and that bring those most affected by the issues to the heart of the decision making. By working together as an international community of practitioners the negative impact of climate change on the development of children can be minimised.

Down Syndrome Medical Interest Group

TIMING AND OUTCOME OF SLEEP STUDIES FOR CHILDREN WITH DOWN SYNDROME

Aims In a world where technology is extending our horizons, services for children with Down Syndrome must not be left behind. This audit assessed, in the wake of possible new recommendations from British Thoracic Society, whether our General District Hospital met the current targets set by local and national guidance regarding provision and timing of sleep studies; Guidance from the RCPCH Working Party on Sleep Physiology and Respiratory Control Disorders In Childhood currently recommends screening using at least oximetry in infancy and annually until 3-5 years of age; our local tertiary Down Syndrome guidance advises screening at 12 months and 4 years with referral for studies if there are concerns at clinical reviews.

Methods Children with Down Syndrome born between January 2015 and 2020 were identified and hospital letters and sleep study database accessed to assess the timing and type of sleep study offered, the outcome and advised clinical management. Repeat studies were also assessed.

Results A total of 17 children were identified. Of these, 12 accessed services before the age of 1 year, 2 children had no record of having a sleep study at this DGH but majority of their care received elsewhere. 3 children moved into area at a later age. One of these children had their sleep study done elsewhere.

The average age for first sleep study was 8.8 months. At the time of first screen, 18% were asymptomatic with the remainder having noisy breathing (46%), snoring with/without apnoeas (9%/9%) and one child had stridor.

The majority had inpatient multichannel studies, 2 had home-based sleep oximetry due to parental choice. The first screen identified 18% to have sleep related disordered breathing (SRDB) triggering ENT referral and also detected abnormal studies due to laryngomalacia and a congenital heart condition. As a result, 25% of the patients were referred to ENT following their first screen.

Subsequent sleep studies performed between 15 months and 4 years (due to symptoms or inconclusive first screen ) identified 3 further patients requiring referral to ENT/tertiary respiratory services. Overall, the diagnosis of SRDB at <1 year was 18%, increasing to 36% by the age of 5 years.

Conclusion For a DGH with 3500 live births per year and an average delivery rate of 3.2 new babies with Down Syndrome per year, we have noted diagnosis of SRDB in 36% by the age of 5 with appropriate onward referral which is vital for avoidance of cardio-respiratory complications. The number may be lower than expected due to proximity of our tertiary services which serves many families whose children have complex cardiology/respiratory needs. The detection of other health conditions (laryngomalacia and cardiac abnormalities) highlights the importance of detailed multichannel studies with skilled interpretation within clinical context to ensure appropriate subsequent care. With ongoing review of the provision of sleep studies and possible changes to recommendations for screening it is important to share knowledge in order to provide timely good quality screening across the country to enable children with Down Syndrome to meet their full potential.