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Executive Summary

The COVID-19 pandemic and associated lockdown measures have had a profound effect on children and young people in the UK particularly on their overall wellbeing, which for some may have a lifelong impact. Furthermore, COVID-19 and associated lockdown measures have also exacerbated health inequalities among children and young people. As a result, youth organisations across Wales developed a specific public health award to bring together and reinforce public health knowledge and skills among children and young people through the provision of an age-appropriate interactive introduction to public health, funded by Public Health Wales (PHW). In light of this, PHW asked the Public Health Institute at Liverpool John Moores University (LJMU) to evaluate the programme to: (1) ascertain if the programme reaches all target groups equally; (2) determine if the programme successfully meets the development and information needs of all groups; (3) determine if the programme led to a change in awareness, skills, and knowledge in all groups; (4) establish if the programme had an effect on intended behaviours of all groups; and (5) explore the barriers and facilitators to implementing and engaging in the programme. This report presents the findings of this process and outcome evaluation of the Wales Public Health Merit Award.

The Public Health Merit Award

The Public Health Merit Award programme builds upon existing work implemented by Welsh youth organisations that include elements of public health within their requirements for youth badges. The programme aims to *"equip children and young people with the public health skills and knowledge to make informed decisions to protect and improve their own health, thus protecting and improving the health of the community and narrowing health inequalities"* (PHW). Representatives from PHW, St John Ambulance, Scouts Cymru, and the Army Cadets make up the steering group who have overseen the development and implementation of the programme in consultation with the World health Organisation Collaborating Centre for Health and Wellbeing, and Public Health Services, to inform an age-appropriate, interactive, and engaging public health curriculum which can be used in a range of youth organisations across Wales. The programme is aimed at two age groups (4-11 and 12-18 years). The curriculum is divided into three key aspects of public health, with a self-determined project at the end. Each of the three key aspects contains two topics with a list of assessment criteria for each. Learners need to meet all the assessment criteria for their age group to complete the award. The main subjects covered are: (1) Protection (communicable diseases, immunisation, infectious agents, vectors of disease, environmental health hazards, hygiene); (2) Prevention (mental wellbeing, taking care of your body); (3) Improvement (wider determinants of health, safe relationships); and (4) Project

(self/locally determined and must demonstrate learning of one or more of the learning outcomes and include a peer-to-peer learning component).

Evaluation Methods

	Semi-structured interviews with stakeholders (n=4) involved in the design and delivery of the programme explored aims and objectives, programme delivery, facilitators and barriers to implementation, outcomes and impact, areas for development, and sustainability.
	Semi-structured interviews with children and young people (n=19) who had completed the programme explored aims and objectives, programme delivery, facilitators and barriers to implementation, outcomes and impact, areas for development, and sustainability.
	Review of available programme documentation and information regarding the processes and policies of the programme were reviewed. A review of the relevant literature was also carried out to provide context to the study.

Findings

- Overall, the evaluation findings underscore the potential wider impact for increased public health-related knowledge in upskilling the wider community with accessible and accurate health information through the Public Health Merit Award.
- The programme plays an important role in providing key information to a wide audience, using a bottom-up approach to ensure that myths are dispelled, and accurate information is relayed and circulated amongst children and young people (and subsequently their families and the community).
- The evaluation reports that the programme is feasible and acceptable to both stakeholders and participating children and young people.
- Incorporating public health expertise, thus, context was seen as key in building the curriculum, such as health protection, prevention, and health improvement.
- The programme curriculum and design was described by stakeholders as informal and flexible, which allowed for autonomy of different organisations to tailor programme delivery to their specific needs.
- Children and young people reported challenges with the delivery of the programme, which was carried out in parallel with other awards such as Nursing and First Aid, resulting in an inability to differentiate which topics covered were specific to the Public Health Merit Award.

- Children and young people reported that the programme was 'fun' and 'interactive'. The applied nature brought real world issues to life and allowed them to improve their knowledge and develop and build skills that would support them in later life.
- Children and young people reported sharing the learning from the programme at home by explaining subsects, in particular prevention of disease, to family, highlighting the significance of the bottom-up approach style of public health information delivery.
- The peer-to-peer 'final project' was seen as key to evidencing the success of the programme by stakeholders.

> *"I would really recommend it to any other person because it will really change the way that they will see people in the world, especially for the view of like drugs and everything. It will give those younger kids who are about to become the next generation a really good insight to what not just Public Health Wales do, but what their work does to influence other children and young people" (Child/young person)*

- Children and young people expressed positive attitudes to this element of the programme. Older children and young people felt it provided them an opportunity to be a 'teacher' and some of the younger children enjoyed working alongside and learning from their older peers.
- Some of the older children and young people suggested having more focused and in-depth sessions separate from younger age groups such as hands-on experience within the community or charity organisations to keep them engaged in the curriculum and for their future career plans.
- Stakeholders from different organisations suggested that collaboration across organisations to share ideas and experiences of delivering the programme (what works, what doesn't work, for whom and why) would be advantageous and would inform programme development for the future. Co-development and clarification of the programme content will allow for expansion of the curriculum within education of children and young people in Wales (e.g. integration into formal curriculum/across further groups).
- Due to the infancy of the programme delivery, monitoring data was not available to review and report upon at the time of the evaluation.

> *"Well, in a world with lots and lots of misinformation, having correct information and ways to protect yourself and be aware about the diseases around you, certainly, just prepares you better for life. I mean, especially after COVID" (Child/young person)*

Recommendations

"I would recommend it to all the cadets in my attachment that they should do it because it's just good knowledge. It's a good thing to have" (Child/young person)

- Programme developers and facilitators should continue to work alongside PHW to ensure up-to date and credible evidence and key public health related issues are obtained and included in updated versions of the curriculum, keeping it current and relevant.
- Co-production working alongside youth services, schools, and children and young people is recommended to assist the future development, wider roll out, and buy-in of the programme across organisations in Wales.
- The programme should be delivered as a standalone course by organisations so that children and young people can differentiate between this and other similar health-related awards such as first aid.
- Programme developers and facilitators should ensure that the delivery is accessible for organisation leaders, volunteers, and peer educators at all levels in organisations who may require additional support when facilitating and delivering the programme.
- It is essential that all programme leaders, volunteers, and staff at all levels of youth organisations are well-equipped and trained regarding the curriculum content and delivery so that learning outcomes can be appropriately delivered and subsequently met by children and young people.
- Continued delivery of an applied, hands-on style programme delivery and continued focus on providing young people with opportunities to develop 'real life' skills which they use in their daily lives and future careers is imperative for successful outcomes and impact on the children and young people of Wales.
- It is advised to ensure that curriculum information and project guidelines are provided in a language and format that is acceptable for all ages of children and young people. This should also include options for older children and young people to obtain real-life experiences in the field such as volunteering opportunities at charity or community organisations. This will be beneficial to both children and young people and the organisations involved.
- It is recommended that partner organisations who are involved in either design and/or delivery of the programme should come together and share their adapted version of the curriculum to share ideas and experiences (what works, what does not work), which will improve the programme curriculum and delivery for all organisations and possible increased buy-in from other youth organisations.

- It is essential all organisations record programme data to include numbers of those participating, numbers of completed awards, sociodemographics of children and young people who have participated in/completed the award (including city/town of residence, gender, age, ethnicity, etc.), methods of delivery (what works, what doesn't work, for whom and why), and impact. This can inform any changes or updates to the logic model which should be updated annually to reflect this.

1. Introduction

Public Health Wales (PHW) is the national public health agency in Wales and is one of eleven organisations that make up NHS Wales. PHW works to protect and improve health and wellbeing and reduce health inequalities for the people of Wales, underpinned by seven strategic priorities that are connected (Box 1) [1-3]. Throughout the COVID-19 pandemic, the population of Wales (along with the global population) experienced a significant public health event, affecting the whole population and specific groups in various ways [4, 5].

Box 1: PHW priorities and wellbeing objectives

The PHW Strategic Plan identifies seven priorities and wellbeing objectives including:

1. Influencing the wider determinants of health
2. Improving mental wellbeing and resilience
3. Promoting healthy behaviours
4. Securing a healthy future for the next generation
5. Protecting the public from infection and environmental threats to health
6. Supporting the development of a sustainable health and care system focused on prevention and early intervention
7. Building and mobilising knowledge and skills to improve health and wellbeing across Wales

Children and young people in particular have experienced a substantial public health event at an early stage in their lives [6], and partners across Wales recognised that there is an opportunity to build on this to equip and empower young people to engage in activities to protect and improve public health. As such, PHW and its partners have co-produced and implemented a Public Health Merit Award programme for children and young people [7]. This programme builds upon existing work implemented by Welsh youth organisations that include elements of public health within requirements for youth badges (e.g. Scouts). Feedback from such organisations (collected from PHW) suggests that there would be value in a specific public health badge to bring together and reinforce public health knowledge and skills across youth organisations.

1.1. COVID-19: A Major Public Health Event

The outbreak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2 or COVID-19) was declared a worldwide pandemic on 11th March 2020 by the World Health Organization (WHO), which resulted in global government restrictions and lockdown procedures [8, 9]. Lockdown measures aimed at reducing the transmission of COVID-19 included the closure of workplaces and recreation facilities, restrictions in travel, 'stay at home' measures and social distancing outside households, people were asked to work from home where possible, and non-essential workers were furloughed [10, 11]. This has had a significant impact on global population health, wellbeing, and health inequalities and the wider determinants of health including the economy, environment, and access to education and

health services [5, 12]. Groups most impacted in the United Kingdom (UK) include those on low incomes, older people, women, and children and young people [13].

1.2. Children and Young People

The COVID-19 pandemic and associated lockdown measures have had a profound effect on children and young people globally [14]. Whilst they are susceptible to infection (although they typically experience milder and fewer symptoms than adults) and transmission of the virus, there are proportionally less cases of infection and death from COVID-19 for children and young people than adults. The WHO reported global cases of COVID-19 between 30 December 2019 to 13 September 2021 in children (0-4 years) at 1.8% (1,695,265); children and young people (5 to 14 years) at 6.3% (6,020,084); and older adolescents (15 to 24 years) at 14.5% (13,647,211) [15]. In the UK cases between 1 Jan 2020 and 30 July 2020 in children (0-4 years) were reported at 0.62% (1,597); children and young people (5-14 years) at 1.51% (3,882); and older adolescents (15-19 years) at 1.73% (4,465) [16].

Whilst lockdown measures were necessary to mitigate the spread of the COVID-19 virus, they have had a significant effect on children and young people in the UK, particularly on their overall wellbeing, which for some, may have a lifelong impact [14]. Effects are wide-ranging and encompass a number of issues such as education; child nutrition; general health and access to healthcare; mental health and wellbeing; and lack of protection from violence, abuse, and neglect [17]. Furthermore, these effects are not equally distributed, and children who are already in disadvantaged situations will be most affected, such as vulnerable groups (refugees, displaced, homeless, migrants, those living in refugee settlements, and minorities), children living with disabilities, and children in institutions [14].

1.3. Health and Social Inequalities among Children and Young People

Health inequalities among children and young people have been defined as ***"the avoidable and unfair differences in physical and mental health outcomes between individuals or groups aged 10-25" … "caused by economic and social differences that influence the conditions in which young people live, learn, work and socialise"*** [18]. Inequalities among children and young people differ to those in older people due to transitions in their life and developmental stages, for example, different stages of their education. COVID-19 and associated lockdown measures have exacerbated these inequalities for children and young people through a direct negative impact on their social determinants of health, for example, closures to schools, universities, and recreational spaces; lack of healthcare access; and high rates of furlough resulting in families falling into poverty [14, 19].

Much of the research on lockdown impact among children and young people is focused on school closures and disruption to education [10]. Globally, school closures affected 1.5 billion children and young people in the first lockdown [14], which, in the UK, lasted for six months. Disruption to education has had a negative effect on children and young people not only in terms of their educational trajectory, but also the increase in educational inequalities underpinned by socioeconomic status and lack of socialisation [10, 20]. For example, home schooling was dependent upon factors such as provision of resources or access to technology, educational support of parents, familial relationships, and personal space within the home [10]. Furthermore, schools also play a vital role in providing structure, security and safety, and food for children who are already living in marginalised means [20].

Poorer mental health and wellbeing outcomes resulting from social isolation (school closures, recreational spaces, etc) were significant. Public Health England [21] reported that subjective wellbeing was lower among some children and young people, such as those from disadvantaged backgrounds and from Black, Asian, and Minority Ethnic backgrounds. In the UK, between April and June 2020 (the peak of lockdown) life satisfaction scores for those aged 10-17 years were at 7.2/10 compared to previous years (e.g. in 2016 scores were 7.5-7.8/10) [22].

1.4. The Public Health Merit Programme

At the beginning of the first lockdown, a number of Scout Troops in the United States (US) initiated the first virtual Scout meetings in response to lockdown measures, which prevented in-person meetings and campouts [23], adding to the social isolation of children and young people who were already unable to attend school and other recreational spaces. Online meetings allowed Scouts to continue to learn and attain awards/merit badges of which training could be delivered online as well as reducing the risk for social isolation. For many years the top ranked merit award badges by the Boy Scouts of America were 'First Aid', 'Swimming' or 'Cooking'. However, 2020 saw significant changes in ranking, with 'Family Life' jumping to the number one spot. Of interest and significance to the current evaluation is the 359% increase in attainment for the Public Health merit badge (online), which is one of the original 57 scout badges issued in 1911, which moved from 120th place in 2019 to 20th in 2020 [24].

With public health on the tip of everyone's tongues following on from COVID-19, youth organisations in Wales recommended the development of a specific public health badge to bring together and reinforce public health knowledge and skills among children and young people in Wales. Whilst there are elements of public health in a number of existing badges in Welsh youth organisations, there was not a specific programme for public health in place. In response to this, the Wales Public Health Merit

Award programme was developed by PHW and partners St John Ambulance, Scouts Cymru, and the Army Cadets. This resulted in the provision of an age-appropriate, interactive introduction to public health through a Public Health Merit Award, akin to the Boy Scouts of America.

The programme builds upon existing work implemented by the Welsh youth organisations that include elements of public health within their requirements for youth badges. The programme aims to *"equip children and young people with the public health skills and knowledge to make informed decisions to protect and improve their own health, thus protecting and improving the health of the community and narrowing health inequalities"* (PHW). Representatives from PHW, St John Ambulance, Scouts Cymru, and the Army Cadets make up the steering group who have overseen the project so far, and in consultation with World Health Organisation Collaborating Centre for Health and Wellbeing, and Public Health Services, to inform an age-appropriate, interactive, and engaging curriculum which can be used in a range of youth organisations (see Box 2).

Box 2: Public Health Merit Award Programme Curriculum

The curriculum for each age group (4-11 and 11-18 years) is divided into three key aspects of public health, with a self-determined project at the end. Each of the three key aspects contains two topics with a list of assessment criteria for each. Learners need to meet all the assessment criteria for their age group to complete the award. Learning outcomes cover:

1. **Protection:** Communicable diseases, immunisation, infectious agents, and vectors of disease; and environmental health hazards and hygiene
2. **Prevention:** Mental well-being; and taking care of your body
3. **Improvement:** Wider determinants of health; and safe relationships
4. **Project:** The end project is self/locally determined and must demonstrate learning of one or more of the learning outcomes and include a peer-to-peer learning component.

The programme is underpinned by three PHW wellbeing priorities: improving mental wellbeing and resilience; promoting healthy behaviours; and protecting the public from infection and environmental threats to health. The programme has been developed by PHW and partners following the five ways of working (see Box 3), as defined within the sustainable development principle in the Wellbeing of Future Generations (Wales) Act 2015. A major component of the programme is addressing health and inequalities and socioeconomic disadvantage among children and young people, particularly as there may be a risk for widening inequalities among under-represented or vulnerable groups within established youth organisations. An a-priori logic model was developed by PHW (see appendix 1) which provides a framework through which the programme's inputs, outputs, outcomes, and ongoing impact can be evaluated. The logic model is intended to guide the development of the programme

and it is intended that it will be updated annually to ensure it reflects the outcomes and impact of the programme.

Box 3: The five ways of working	
Hirdymor  Long Term	PHW and delivery partners have created a merit award scheme that is flexible and adaptable to future contexts. Youth leaders of the future will be able to work with the curriculum without the need for in-depth training. This means it will be available to children and young people in the long term without any need for major investment.
Atal  Prevention	The merit award scheme offers the opportunity to reach people early in their lives with important public health information and messages. This offers an important opportunity for prevention, such as raising awareness of the importance of physical activity, or the risks of drug or tobacco use at an early age; and embed healthy behaviours that are crucial for prevention.
Integreiddio  Integration	The merit award looks at public health holistically, including elements from across multiple public health topics and domains. The curriculum also interfaces naturally with other youth merit awards, demonstrating the links between public health competencies and other skill areas e.g., Environmental Conservation, First Aid, Physical Activity badges.
Cydweithio  Collaboration	PHW have worked with three established youth organisations in the development of the programme, who are expertly placed to advise on working with children and young people and the opportunities for engagement presented by existing youth structures.
Cynnwys  Involvement	PHW involved children and young people in the design of the badge and going forward, their continued feedback will be integral to iterative improvements in the curriculum and learning materials.

1.5. Aim and Objectives

The study aim was to implement a process and outcome evaluation of The Wales Public Health Merit Award. The key research question underpinning the evaluation is: ***"Does the Public Health Merit Award successfully reach the target audience and convey knowledge across the three domains of public health?"*** The objectives of the study were to:

- Ascertain if the programme reaches all target groups equally.
- Determine if the programme successfully meets the development and information needs of all groups.
- Determine if the programme led to a change in awareness, skills, and knowledge in all groups.
- Establish if the programme had an effect on intended behaviours of all groups.
- Explore the barriers and facilitators to implementing and engaging in the programme.

2. Methodology

To meet study objectives, a range of qualitative methods were implemented with findings triangulated to inform the evaluation outcomes. Interviews and focus groups explored perceptions of the programme and curriculum content; programme development and delivery, including any adaptations; factors supporting and impeding implementation of, and engagement in the programme; areas for development; and perceived and actual impacts.

The feasibility of implementing pre and post surveys with children and young people was also explored. The aim of these surveys was to explore impact of the programme on children and young people's public health skills and knowledge. However, following a scoping exercise, and based on qualitative findings on the wider variability of the topics covered as part of programme delivery, it was agreed with commissioners that quantitively exploring changes in knowledge using pre and post surveys was not a feasible or suitable approach to measure impact. Consideration was also given to implementing a post programme survey only to qualitatively explore perceptions of the programme. Given challenges in recruiting children and young people to focus groups and interviews however, this approach was also not considered feasible, and it was decided that richer qualitative data could be gathered from interviews and focus groups, and thus the priority was to recruit children and young people for these data collection methods instead.

Review of literature, policy, and programme documents and data: Analysis of available programme documentation and information regarding the processes and policies of the programme were reviewed. A review of the relevant literature was also carried out to provide context to the study.

Semi-structured interviews (n=4) were conducted via Microsoft Teams with programme developers and youth leaders of the Public Health Merit Award.

Two focus groups (n=15 children and young people) and **semi-structured interviews (n=4 children and young people)** were conducted with children and young people aged 11-18 years who have completed the Public Health Merit Award. One focus group and all four interviews were conducted via Microsoft Teams and one focus group was carried out on-site following delivery of the programme that day.

2.1. Data analyses

Interview data was transcribed verbatim and thematically analysed. This was subsequently triangulated with collated literature to provide robust findings and recommendations.

2.2. Ethics

Ethical approval was sought and approved by Liverpool John Moores University (UREC ref no 23/PHI/003).

3. Discussion of Findings[1]

Stakeholders discussed their roles within their organisation and in the design and implementation of the Public Health Merit Award from the pilot phase to programme rollout (see table 1). Children and young people discussed their involvement within their organisation and their experiences of participating in the Public Health Merit Award. Discussions centred on programme aims and objectives, programme delivery, facilitators and barriers to implementation, outcomes and impact, areas for development, and sustainability.

Table 1. Timeline of Programme Rollout

	The pilot phase of the programme ran from January to April 2023 at St John Ambulance
	The programme was rolled out by the Army Cadets and St John Ambulance in September 2023

3.1. Programme development

All stakeholders discussed their role in the design and development of the programme with the support of PHW and the steering group committee. The curriculum was written and designed by stakeholders who had a public health background and experience writing curriculums. The curriculum was reviewed by all partners and the steering group until a final document agreed by all was completed. The final step in the curriculum development was to pilot the programme at the three organisations prior to the rollout to all other organisations in the future.

> *"They [partners/steering group] built that primarily with help from PHW in terms of public health, in terms of testing it with our public health colleagues. You know, in terms of that expertise around public health" (S2)*

> *"We went back and forth, back, and forth. So everyone agreed to it, and everyone signed it off" (S1)*

> *"I think we were quite fortunate in the curriculum was actually designed and worked on by another of the partner organisations, so we contributed to it, but we weren't responsible for writing it really. So it was more about supporting PHW, supporting other partners and I think contributing ideas" (S3)*

[1] Quote key: S=Stakeholders; CYP=Children and young people.

By reaching a wide-ranging audience, it was felt that the message of PHW would be more accessible. Stakeholders anticipate that the programme will reach the children and young people within their organisations, but also their families, peers, others within the community, and wider society, creating an 'army' of people who are well-equipped with public health knowledge.

> *"We talked about initially the idea about building a kind of army of individuals who can provide that public health knowledge and some knowledge and some skills and some ability to go and push that messaging out as well into the communities, groups, etcetera that they're in. So for me it's about working with children and young people to develop their experience, their understanding of public health, so they can make better informed choices and decisions about their health and hopefully influence people around them as well" (S2)*

> *"I know that I've got a [child/young person] of my own and I know that if they were doing something like this, they'd always come home and tell us about it. So I think for the community, by the young people telling their parents, telling their grandparents, I think that will just spread the public health message. I think the impact potentially could be massive" (S3)*

3.2. The Pilot Phase

The pilot phase of the programme was rolled out in each of the three organisations involved in the evaluation. At the time of the evaluation, the exact number of children and young people who had completed could not be determined. Stakeholders could, however, provide some information pertaining to age groups of those who had participated in the pilot, which ranged from 10 to 18 years old. One reported that the pilot was run in two separate groups (4-11 and 12-18) to reflect the curriculum design and to gather feedback for all ages of children and young people. At the time of the evaluation, one stakeholder noted that following the successful pilot phase, it was anticipated that the programme would be rolled out across Wales in the near future.

> *"We had a really varied age group, so we had right the way from the lowest end, which was 10, right the way up to we have an 18 year old in the room. So yeah, it was a really wide spectrum of ages" (S4)*

> *"We aimed for two pilots, about 30 young people in each, and one was to work on the younger curriculum and then the other was to work on the older curriculum so that we looked at the whole programme. As I say, I'm still waiting for feedback, because it will be fitted in around other things they're doing so. You know, just something will always take its time" (S3)*

> *"In the next two weeks, it's gonna be rolled out to every divisional unit in Wales and for them to pilot and then to run within the units and that will be over a term. And so that will be over six weeks. They'll run it. So that's the next step for us now. And obviously then from that jump, will take you to over 1000 young people" (S4)*

3.3. Perceptions of the programme

3.3.1. Curriculum delivery

Most stakeholders had positive viewpoints of the curriculum delivery options available to them and programme leaders. They viewed it as being informal and flexible and can be adapted to suit the teaching styles of different leaders and in different organisations. Furthermore, the option to run it either in the evenings at the organisation's group night, or, as a weekend activity was considered an attractive option for organisations. One stakeholder considered the curriculum to be *too* formal however, and that it would need some adjustments to suit the organisation where they volunteer and the programme leaders who will deliver the course. This highlights the diversity of organisations who will utilise and deliver this programme across Wales and the wide age-range of children and young people completing it. Stakeholders discussed possible challenges with delivery to a wide-ranging age group of children and young people and likened it to a school setting whereby classes are segregated by age. However, one believed that the timely subject matter, flexibility, and universal language of the curriculum allowed for all age groups to come together and complete the programme.

> *"It's done through a variety of different learning styles as well, so we try to stay away from anything which is quite formal, classroomy kind of thing because we are an informal learning environment. So we tend to use a lot of like games, visual aids, practical tasks, all of that kind of stuff" (S1)*

> *"We were really conscious about how to deliver it and so we've got two delivery options. We've got one as a full weekend and then we've also designed it to split down into one-hour modules, which will then fit into our programme, which is our main programme for our 11 to 16 year olds. And so it's designed to be run both ways" (S4)*

> *"I've got the curriculum and I find its still quite academic-based, so it's still a piece of work really for me in trying to translate that to what [organisation] is about without changing the content" (S3)*

> *"It's very hard to try and deliver our programme in our units to the age-ranges we have because even in school you wouldn't have that massive broad age range within one classroom essentially. So our leaders do sometimes struggle to aim it right. But I think this time it worked; I think because the subject matter was so universal, they all related in their own way to it. And so yeah, it was good. It was really good" (S4)*

Some children and young people seemed to be unsure or unable to differentiate between the different awards in which they participated, for example, some discussed first aid training and the applied nature that allowed them to build 'real life' skills. This could link with the citizenship/community asset part of the award however, this was difficult to attribute specifically to the Public Health Merit Programme. Additionally, it was felt by many children and young people that the hours per day spent on the training were very long and tiring overall.

"It was like the Merit Award and then the Nursing Course together, they were just, it was so mashed up together that it would be like, you do, you'll do a poster or something for the nursing course part and then you do poster on the merit, but you wouldn't be able to pinpoint which one's which" (CYP16)

"The way in which we did the week of learning for the Prince of Wales scheme, which also included the Public Health Merit Award meant that it was very long hours, and it was quite demanding. And so, whilst I'm sure there was things I probably did dislike about everything as a whole, that sort of slipped my mind because I think I was very tired" (CYP18)

"Cause it was basically like 16 hours, 17 hour days. You know, for a whole, for a whole week, really" (CYP16)

"I would say one thing is that we didn't have much time. We were given a lot of books to fill out over the two weeks, but we were working on those books for hours on end and still at the end of the two weeks we felt like we were rushing it just to get it done. Um, so if anything, just maybe half a week extra just to complete all the books and make sure we have all the activities completely done" (CYP17)

3.3.2. Curriculum content

The programme delivery was widely accepted by children and young people, and for some it was a badge or award they could achieve which would be part of a broader award, such as healthcare-related subject and assisted their skills development in this area. One child (aged 11) noted that it was just the right level of 'challenging' for him, and that the activity style of delivery was considered fun and positive. However, one of those who participated in the focus group remarked that it would be better to divide the 11-18 year old group in two so that the older individuals could have more in-depth, focused time on the subjects. The range of different topics covered within the umbrella of public health were also perceived as being new and informative information for most children and young people who could relate to them within their lives.

"No, I think it was all pretty like decently hard ... It wasn't that hard, but it wasn't that easy. We did a bunch of, like, really fun stuff we did like how to deal with healthy relationships, how to deal with germs and sicknesses, and then there's like stuff I can't really remember" (CYP1)

"I just think that it was really good that it allowed us to see a lot of different aspects of public health and because it's something that we wouldn't generally hear much about, but it was good to have some insight and to learn about all the different things that go into it that you wouldn't necessarily like relate together" (CYP10)

All children and young people interviewed were asked about their favourite aspects of the programme. The importance of developing skills that would be beneficial to them as they get older, particularly in terms of career prospect, was significant for some. Furthermore the hands-on style

activities were positively accepted by most, with one noting that this was the best type of learning and retaining information for him.

"First aid I think for me personally because I'm interested in a career in medicine" (CYP2)

"Oh I learnt a hell of a lot … it was ridiculous and mad the amount I learned. And some aspects, some of it helps me with my college because I'm doing childcare" (CYP16)

"I think the favourite part of it was the second section which was what to do in event of these sicknesses … because it didn't just cover sicknesses, it covers injuries as well as sicknesses … and that meant that we had a lot more hands-on activities. I'm a lot better with hands-on activities. I learn a lot better with hands-on activities and that's how I remember things" (CYP17)

3.3.3. Peer-to-peer learning

Stakeholders had an extremely positive viewpoint of the project, which is the final module of the curriculum for all age groups. This peer-to-peer activity was considered a positive exercise for the children and young people and for the programme leaders who observed the positive impacts of the programme through the projects delivered by each group. Furthermore, the variety of project topics chosen by the groups demonstrated to programme leaders that the children and young people were engaged with the modules and could subsequently decide which subject or topic was most appealing to them. It also allowed them to demonstrate their ability to work together as a group with a variety of ages ranging from 11 to 18. Stakeholders felt that this peer/advocacy style activity was an extremely positive way to finish the programme for all involved. This was also how the children and young people perceived the final project who had the opportunity to work with peers of all age groups on a specific topic, thus demonstrating their ability to work as a team and to showcase their learning.

"They all developed then a little project, a peer educational project which they then practiced on each other, and they really enjoyed doing that. And so it was interesting to see that actually out of this one kind of group, they had so many different interests. It tells us that the programme reached them on lots of different levels and I really like the peer education style of it" (S1)

"I think it was a really nice way to end the programme and it gave the young people a bit of free time, moments as well to have the discussions around what they just gone through and what they've talked about and you know, there was some things that were brought up in questions that they were asking each other from that, from what they've just been delivered. And I think it just allowed everything to assimilate it and then just put it back out in their own words so that you know you could tell they understood it" (S4)

"It was quite interesting, different ideas, how people, and then we got once we had the posters written up, we presented them in front of the whole with our different groups. Um and we explained how the, we had to reteach the different sections to the entire group" (CYP17)

3.4. Outcomes and impact

3.4.1. Public health 'mythbusting' advocates

The consensus among all stakeholders in terms of anticipated impact of the programme centred not only on children and young people's public health knowledge and skills, but to be able to relay accurate public health information to their families and peers in a sort of 'bottom-up' approach. These discussions focused on the impact of the COVID-19 pandemic and how people in the general public may now consider themselves as public health experts. It was considered by all stakeholders that accurate public health information and clarity on 'myths', such as vaccinations, infection control, mask-wearing etc., be provided to positively impact future generations' health-behaviours. All stakeholders believed the programme provides/will provide this.

> *"I think in recent years public health has become something that lots of people know about. Everybody's probably become a bit of a home public health expert. So I think it will help myth bust in a way. You know, sort of let young people know what public health is about. And give them some skills to empower them a little bit" (S3)*

> *"It can like help transition us so we can develop into and understand and hopefully take it into the field" (CYP9)*

> *"I think this gives young people the correct information, the factual information and just, you know, gets rid of all these rumours and myths and it just takes it back to basics and most of it is common sense, isn't it? And just gives them a really good grounding for if they want to be in that field of work going forward in the future, that they've got some knowledge and start building on. And if they don't, it's just some really good common sense knowledge for life, really" (S4)*

> *"In longer-term to see changes in behaviours in terms of can we see that influence then deriving into communities and you know or even just like friends, families etcetera that these children and young people obviously talking to and will we see the behaviours change of those people long term" (S2)*

3.4.2. Impact on individuals and, families

When asked about the objectives of the Public Health Merit Programme, the children and young people had some very positive viewpoints. The Prevention module seemed to have the most impact on those who completed the programme. In particular, reducing the spread of disease and illness through prevention methods, such as effective handwashing, was noted by many as something they took on board and home to their families. Some taught the correct method for handwashing to their families and others explained the importance of prevention from a public health perspective. One child/young person noted that *"that's how I wash my hands now"* demonstrating the positive, lasting impact of the learning for this individual.

"The objectives were really helpful because we were able to get an insight of what Public Health Wales actually do and their work against protecting, prevention, and improvement of their service" (CYP13)

"So I learned quite a lot from that and that helped me gauge of how easy it is to get sick and how you need to, how important it is to wash your hands every time you touch anything really, to be honest. They also taught us how to wash our hands effectively with a UV light, which was quite interesting. That's how I wash my hands now. Usually back in the day I used to just put soap on, rub it for like five seconds and then you're done. But now and then they showed us wash your hands and then they showed us under a UV light. This is all the germs that you didn't get and then they showed us how to wash properly. You get under your fingernails in between the fingers and took us about thirty seconds longer, but then there was pretty much no germs on after" (CYP17)

"I've talked about it with my dad, but my dad being quite cynical, then whether he takes on board everything I've said there is different. My mum, she actually works in the health hospital in Cardiff, so a lot of the stuff I said she already knew, and my sister being a typical teenage girl, she wasn't really interested to hear anything. But taking forward stuff in my life, yeah, I do. I certainly, the prevention aspect of it, that's something I've definitely taken on into my own life" (CYP18)

Children and young people who were interviewed stated that they would highly recommend the programme to others. This was not only because it was an enjoyable activity-style type of peer-to-peer learning, but rather because of the importance of the topics covered and how they are relevant to everyone in today's world. One had a very insightful opinion and believed that the programme made PHW more visible to the children and young people of Wales. Furthermore, some felt that ensuring the correct information pertaining to prevention of disease was relayed to their families, friends, and wider community following completion of the programme.

"I would really recommend it to any other person because it will really change the way that they will see people in the world, especially for the view of like drugs and everything. It will give those younger kids who are about to become the next generation a really good insight to what not just Public Health Wales do, but what their work does to influence other children and young people" (CYP13)

"Well, in a world with lots and lots of misinformation, having correct information and ways to protect yourself and be aware about the diseases around you, certainly, just prepares you better for life. I mean, especially after COVID" CYP18)

"Yeah, 1000% I definitely would. It's definitely good experience. I would recommend it to all the cadets in my attachment that they should do it because it's just good knowledge. It's a good thing to have" (CYP17)

3.5. Development and sustainability

3.5.1. Adaptable curriculum

Stakeholders all discussed the need for a good quality curriculum that is easily adaptable to organisations, programme leaders, and children and young people as being pertinent to the sustainability of the programme in the future. Additionally, they felt that continued revision and redevelopment of this curriculum in line with current topical health-related issues should be considered to keep the programme 'fresh' and timely. Furthermore, most stakeholders also noted that the curriculum should not be resource heavy and that it should also be cost effective, which are both significant for sustainability particularly considering that most organisations/leaders implementing the programme work on a voluntary basis. One stakeholder believed that having a curriculum that is continually updated and refreshed would mean word-of-mouth would be positive among partner divisions and organisations, resulting in sustainability of the programme. Sustainability was considered by two stakeholders as being dependent upon expansion and development, such as collaborating with more partners and organisations, thus increasing the numbers of children and young people engaging in the programme, for example, collaboration with schools who could adapt and deliver the programme themselves. The participant noted that this would be dependent upon a robust, cost effective, low resource curriculum.

> *"It's good quality lesson planning in the first instance. You know that is deliverable to people on the ground. And so something that isn't resource heavy. So, if we lesson plan it in a way you need this and you need this equipment and this equipment and this or whatever these are volunteers who are delivering this programme in their spare time on minimal cash, on no salary you know so it has to be completely flexible, and you know it doesn't not to be resourced … If you've got a different way of delivering it, we're amenable to that because you've got to know your group" (S1)*

> *"I think the steering group will need to keep the curriculum fresh, I think, there are obviously phases when things are topical isn't there? And I think we need, it needs to be kept up-to-date. If it sits on a shelf and you know, we're still pointing people to information that's five years old, you know, in 10 years' time, you know, I think people will lose interest" (S3)*

> *"Sustainability is for me, it is when we tip into that kind of economies of scale, when we have the weight of more partners and more children and young people, there's an expectation obviously on delivery partners to do that. But will they, if it grew and grew and grew, will we start seeing that there's actually more support required in terms of more support for delivery partners, more support for them delivering and facilitation and facilitators, would we see if we work with schools, you know, what would schools have the capacity to take this on or would there be added resources needed to deliver this so there's always gonna be that inevitable funding aspect" (S2)*

3.5.2. *Operationally specific*

Based on the design process and the pilot phase of the programme, stakeholders discussed different areas that could be further developed, or changes made, for the programme going forward. The primary recommendation was related to the variety of age groups who will participate in the future and the likelihood that the older children and young people (16+) may require a more hands-on experience within the community to keep them engaged in the curriculum. This would also benefit the organisations who work at charity events, for example, and could incorporate the curriculum into their volunteering roles, making it operationally specific to each organisation. Another recommendation was that all partner organisations should come together and share their adapted version of the curriculum to share ideas and possibly improve the programme going forward for all involved.

> *"We're moving more towards a three group system where 16 to 18 year olds are being treated more now like young adults and given that extra responsibility. So I think maybe in a year or two's time once every unit have started to run this, I think it would be good to see if the feedback is there, whether we should just narrow the field of the current programme and give something a little bit more meat on the bones in the 16 plus programme and make it a little bit more grown up and go in and make it more specific to us as a charity and go into like our infection control around operational events and gloves and treating patients and things like that. So maybe we could make it more operationally specific" (S4)*

> *"Word gets around, you know, you get one division who delivers it and goes well 'that's rubbish'. They then in their county meetings will tell all the other people delivering, 'Oh, no, it's rubbish. Don't do it'. And then you know, just spreads like rot then through the things. So we have to be on our toes, and we have to keep it current" (S1)*

The children and young people who were interviewed also provided some insights into how the future development of the programme might look. The main recommendation was that the programme should be adapted and delivered to those much younger than themselves. Furthermore, tailoring sensitive subjects such as drugs, alcohol, and sexual health to suit all different ages and to be acceptable to parents was recommended.

> *"Obviously the course was like really well developed and had a lot of information in which like, it wasn't, there was no boring parts to the actual course. Everyone was really engaged in the course. So, therefore, it outlines that the course is suitable for other kids, maybe even younger than us who might be able to gain some life-saving skills out of it" (CYP13)*

> *"So whether that one (drugs and alcohol and tobacco) and sexual and reproductive health, depending on who it's being told to, I think it would change, so I don't want to say like having two different ones, so maybe below 13 and above 13, but certainly it would potentially make it more likely to be taught because obviously cautious parents*

wouldn't want people to see about those sorts of things, yeah, negative externalities. I think those are the two things which would, if you needed to add or remove them, it would be those two based on which age group is being taught the information" (CYP18)

3.5.3. Data monitoring

Plans to measure programme impact was discussed with all stakeholders and included observed impact, programme monitoring data (ages participating, numbers completed etc.), and feedback from children and young people who have completed the programme. The voices of children and young people were considered by all as essential for measuring the impact and success of the programme in the first instance. One stakeholder noted however, that monitoring impact or success among children and young people within their organisation would be difficult, particularly as their organisation is already health-focused and they already have that knowledge.

"So how will we monitor the success? I haven't worked that out yet. I've got the quantitative in terms of take-up. I've got the qualitative in terms of feedback from young people about how well they enjoyed it, cause if they've enjoyed it, they will take the learning from it. If they don't enjoy it, they won't learn from it. So we can surmise that if they've enjoyed it, they will have taken the messages from it. So it's sort of like a different way of getting data" (S1)

"So we've got county managers, the volunteers that look after each of the counties. So there's seven counties in Wales. And so obviously they do regular visits within the units, and they check things like session plans and stuff like that and completion reports. And then as a national team, we're planning on doing drop in visits to various units across Wales and just see how they're delivering it. Speak directly to the young people, see how they feel" (S4)

"In terms of will people be more vaccinated as a result and everything, they already are. Will people wash their hands more, well they already do. And you know, it's just part of our practice already, you know, will people exercise more? I don't know because we already have exercises as part of our programmes anyway. So it would be difficult to monitor in that way" (S1)

4. Summary of key findings

The COVID-19 pandemic and associated lockdown measures have had a profound effect on children and young people in the UK, particularly on their overall wellbeing, which for some may have a lifelong impact [14]. Furthermore, COVID-19 and associated lockdown measures have also exacerbated health inequalities among children and young people [5, 12]. As a result, youth organisations across Wales developed a specific public health award to bring together and reinforce public health knowledge and skills among children and young people through the provision of an age-appropriate interactive introduction to public health, funded by PHW. PHW work to protect and improve health and wellbeing and reduce health inequalities for the people of Wales [1-3]. This report presented the findings of a process and outcome evaluation of the Wales Public Health Merit Award.

Overall, the evaluation findings underscore the potential wider impact for increased public health-related knowledge in upskilling the children and young people with accessible and accurate health information. The programme plays an important role in providing key information to a wide audience, using a bottom-up approach to ensure that myths are dispelled, and accurate information is relayed and circulated amongst children and young people (and in part to their families). Programme developers and facilitators should continue to work alongside PHW to ensure up-to date and credible evidence is used to inform the development and wider roll out of the programme.

The evaluation reports that the programme is feasible and acceptable to both stakeholders and participating children and young people. Having access to a quality curriculum that is easily adaptable was identified as crucial for young people across Wales. Incorporating the public health expertise and thus context was seen as key in developing the curriculum such as health protection, prevention, and health improvement topics. The programme curriculum and design were described by stakeholders as informal and flexible which allowed for autonomy of different organisations to tailor programme delivery to their specific needs. Programme developers should continue to evolve the programme, building on key health related issues. Evaluation findings also demonstrate the importance of incorporating youth voice, therefore, co-production working alongside the youth services, schools, and children and young people is imperative to the further development of the programme.

Most children and young people reported the delivery of the programme was carried out in conjunction with other awards such as Nursing and First Aid. This was reported as a challenging factor by most children and young people who participated in this delivery format due the inability to differentiate which topics covered were associated with which different award. Programme leaders and facilitators should consider delivering the programme as a standalone activity to provide clarity to the children and young people on what each specific award entailed. Furthermore, programme

developers and facilitators should ensure that the delivery is accessible for both organisation leaders and for volunteers and peer educators who may require additional support when facilitating and delivering the programme. It is essential that all programme leaders, volunteers, and staff at all levels of youth organisations are well-equipped with the information about the Public Health Merit Award, including curriculum content, how the programme differs from other health-related awards, facilitators guide to outline delivery options, and appropriate training for all programme leaders who will deliver the programme. If all levels of individuals within organisations understand and deliver the programme from a comparable perspective, learning outcomes can be appropriately delivered and subsequently met by children and young people.

Findings highlight the benefits of the programme being 'fun' and 'interactive' for young people. The applied nature brought real world issues to life and allowed children and young people to improve their knowledge and develop and build skills that would support them in later life. Furthermore, many children and young people noted how they took the learning from the programme home and passed it on to family, highlighting the significance of the bottom-up approach style of public health information delivery. Programme development should acknowledge the importance of having an applied programme and continue to focus on providing young people with opportunities to develop 'real life' skills which they can pass on to their families and potentially wider communities.

The peer-to-peer learning element of the programme – the final 'project' – was seen as key to evidencing the success of the programme by stakeholders. The children and young people interviewed also expressed positive attitudes to this element of the programme. Some older children and young people felt it provided them a chance to be a 'teacher', whereas some of the younger children and young people enjoyed working alongside the 'older ones'. Therefore, ensuring curriculum information and project guidelines are provided in a language and format that is acceptable for all ages is essential. Some of the older children and young people suggested having more focused and in-depth sessions separate from younger age groups. Older children and young people (16+) may require or benefit from a more hands-on experience within the community to keep them engaged in the curriculum and for their future career plans. This would also benefit the organisations who work at charity events, for example, and could incorporate the curriculum into their volunteering roles making it operationally specific to each organisation.

Stakeholders from different organisations suggested that collaboration across organisations may be beneficial. Collaboration to share ideas of experiences of delivering the programme (what works, what doesn't work, for whom and why) is recommended. This will inform the programme for the future within youth organisations. Furthermore, co-development and clarification of the programme content

will allow for expansion of the curriculum within education of children and young people in Wales (e.g. integration into formal curriculum/across further groups). All partners should come together and share their adapted version of the curriculum to share ideas and possibly improve the programme going forward for all organisations.

Due to the infancy of the programme delivery, monitoring data was not available to review and report upon at the time of the evaluation. It is recommended that going forward, all organisations record programme data should include numbers of those participating, numbers of completed awards, sociodemographics of children and young people who have participated in/completed the award (include city/town of residence, gender, age, ethnicity, etc.), and methods of delivery (what works, what doesn't work, for whom and why). This will identify gaps in the reach of the programme and any persistent gaps in health inequity in Wales in children and young people. This is a key factor to ensuring successful implementation, embedding, and sustainability of the programme in the future. Sustainability of the programme is also dependent upon buy-in from other organisations across Wales, therefore, transparency of programme dose and reach that is accessible to other organisations is important. Measuring the impact of the programme on children and young people's public health knowledge and skills is also key to understanding whether the programme is achieving its aimed outcomes and increasing buy-in and sustainability. The feasibility of measuring impact quantitatively using pre and post surveys was explored as part of the current study, however, the breadth of topics included in the programme and variability in the topics delivered across groups prevented a quantitative measure of impact in the current study. Future evaluation should continue to explore the feasibility of quantitatively measuring impact, particularly if programme topics are delivered more consistently across groups in future implementation of the programme.

4.1. Recommendations

- Programme developers and facilitators should continue to work alongside PHW to ensure up-to date and credible evidence and key public health related issues are obtained and included in updated versions of the curriculum keeping it current and relevant.
- Co-production working alongside youth services, schools, and children and young people is recommended to assist the future development and wider roll out and buy-in of the programme across organisations in Wales.
- The programme should be delivered as a standalone course by organisations so that children and young people can differentiate between this and other similar health-related awards, such as first aid.

- Programme developers and facilitators should ensure that the delivery is accessible for organisation leaders, volunteers, and peer educators at all levels in organisations who may require additional support when facilitating and delivering the programme.
- It is essential that all programme leaders, volunteers, and staff at all levels of youth organisations are well-equipped and trained regarding the curriculum content and delivery so that learning outcomes can be appropriately delivered and subsequently met by children and young people.
- Continued delivery of an applied, hands-on style programme delivery and continued focus on providing young people with opportunities to develop 'real life' skills which they use in their daily lives and future careers is imperative for successful outcomes and impact on the children and young people of Wales.
- It is advised to ensure that curriculum information and project guidelines are provided in a language and format that is acceptable for all ages of children and young people. This should also include options for older children and young people to obtain real-life experiences in the field such as volunteering opportunities at charity or community organisations. This will be beneficial to both children and young people and the organisations involved.
- It is recommended that partner organisations who are involved in either design and/or delivery of the programme should come together and share their adapted version of the curriculum to share ideas and experiences (what works, what does not work), which will improve the programme curriculum and delivery for all organisations and possible increased buy-in from other youth organisations.
- It is essential all organisations record programme data to include numbers of those participating numbers of completed awards, sociodemographics of children and young people who have participated in/completed the award (include city/town of residence, gender, age, ethnicity, etc.), methods of delivery (what works, what doesn't work, for whom and why), and impact. This can inform any changes or updates to the logic model which should be updated annually to reflect this.

5. References

1. Public Health Wales, *Public Health Wales Long Term Strategy- Working to Achieve a Healthier Future for Wales*. 2018.
2. Public Health Wales, *Annual Report 2021/22*. 2022.
3. Public Health Wales, *Working together for a healthier Wales. Our Long-Term Strategy 2023 – 2035*. 2023: Wales.
4. Welsh Government, *Together for a safer future: Wales' Covid-19 transition from pandemic to endemic (March 2022) - impact assessment*. 2022.
5. Green, L., et al., *Predicted and observed impacts of COVID-19 lockdowns: two Health Impact Assessments in Scotland and Wales.* Health Promotion International, 2022. **37**(6).
6. Office for Health Improvement and Disparities, *COVID-19 mental health and wellbeing surveillance: report*. 2022.
7. Fogarty, R. and R. Beaumont-Wood, *Public Health Merit Award (Badge)*, in *Public Health Wales Board Meeting*. 2022.
8. World Health Organisation, *WHO Director-General's Opening Remarks at the Media Briefing on COVID-19*. 2020.
9. UK Government, *Prime Minister's statement on coronavirus (COVID-19): 23 March 2020*. 2020.
10. Holt, L. and L. Murray, *Children and Covid 19 in the UK.* Children's Geographies, 2022. **20**(4): p. 487-494.
11. Chiesa, V., et al., *COVID-19 pandemic: health impact of staying at home, social distancing and 'lockdown' measures—a systematic review of systematic reviews.* Journal of Public Health, 2021. **43**(3): p. e462-e481.
12. Dahlgren, G. and M. Whitehead, *The Dahlgren-Whitehead model of health determinants: 30 years on and still chasing rainbows.* Public Health, 2021. **199**: p. 20-24.
13. UK Government, *State of the nation 2020: children and young people's wellbeing Research report*. 2020, Department for Education.
14. United Nations, *The Impact of COVID-19 on children: Policy Brief*. 2020.
15. World Health Organization, *COVID-19 disease in children and adolescents*. 2021.
16. UK Government. *Coronavirus (COVID-19) in the UK: Cases by specimen date age demographics*. 2023; Available from: coronavirus.data.gov.uk/details/cases?areaType=nation&areaName=England.
17. UNICEF UK, *Children In Lockdown: Coronavirus Impacts Snapshot*. 2020.
18. McKeown, R. and A. Hagell, *Clarifying what we mean by health inequalities for young people. Health Inequalities Policy Programme: Briefing Paper.* 2021: London.
19. Hagell, A., *Summarising what we know so far about the impact of Covid-19 on young people*. 2021: London.
20. University of Liverpool, *Support for children's education during the COVID-19 pandemic*. 2021.
21. Public Health England, *Disparities in the risk and outcomes of COVID-19.* 2020.
22. The Children's Society, *The Good Childhood Report 2020*. 2020: London.
23. Freeman, M., *Scouting Show & Tell: Scouting remotely*, in *Scouting Magazine*. 2020.
24. Wendell, B., *2021 merit badge rankings: Return of summer camps shuffles the list again*, in *Scouting Magazine*. 2022.

6. Appendix: PHW Merit Award Logic Model

Inputs	Outputs		Outcomes			Impact
	Activities	*Participation*	*Short*	*Medium*	*Long (summative)*	
• Collaborative expertise. • Stakeholder identification and engagement. • Convene oversight group • Curriculum budget. • Staff time.	• Review literature (for curriculum development and delivery). • Identify existing indicators in Wales related to health and wellbeing of young people linked to curriculum. • Identify persistent gaps in health inequity in Wales in young people. • Co-develop and clarify curriculum and additional resources/sources. • Clarify delivery of curriculum across youth groups (e.g., training needs of curriculum deliverers, mode of delivery, demographics of youth audiences.	• St John's Ambulance cadets (age 11-18) [all or targeted eligibility] • Scouts (age 11-18) [all or targeted eligibility] • RAF Cadets (age 11-18) [all or targeted eligibility]	• **Reach/participation**: Uptake and awareness of badge / curriculum; proportions signing up and completing badge. • **Acceptability**: Does the curriculum and resources meet the information needs of the audience (how are the domains landing [are they favorable, engaging, and relevant to youth/groups], avoiding stigmatisation, what aspects of the curriculum are working well and what not so well) and does this differ between groups (demographics/youth groups) • **Capability/learning**: a change in skills/knowledge/attitude/confidence and commitment within all three domains & project of public health based on participation. • **Motivation:** readiness to take part in learning to attain badge • **Personal development/behaviour:** a change in (intention for) behaviour of youth as a result of curriculum (e.g., intention to vaccinate; physical exercise) – linked to all 3 domains & project. • **Barriers to participation:** does the curriculum have the same reach and impact across population groups (by age, deprivation, ethnicity, gender, additional needs, rurality etc.); what could be done to widen participation; challenges to running curriculum? • **Perception of badge by leaders/groups** Did different modes of delivery impact reach of youth in different groups? Did curriculum meet delivery needs of all leaders/groups (competency to delivery)?	• Change in behavior of youth, as a result of curriculum (e.g., receiving vaccination; physical exercise) – linked to all 3 domains & project. • Improved understanding of educational/career pathway in public health	• Enhanced education/employment opportunities of youth/leaders (e.g., access to higher education, career, perception of badge in the workplace) • Effect (benefit) of doing badge on self/family/community •	• Success of the curriculum as per aims: (1) equip children & young people with the public health skills and knowledge; (2) to make informed decisions to ; (3) protect and improve their own health; (4) thus protecting and improving the health of the community and (5) narrowing health inequalities **= health of population of Wales improves** • Did the curriculum deliver the anticipated effects; Unintended consequences (e.g., widening of inequalities, socioeconomic disadvantage) • Expansion of curriculum within education of young people in Wales (e.g., integration into formal curriculum/across further groups)

Assumptions

1. Curriculum meets needs across all age groups; youth groups. **2.** Leaders are equipped with adequate knowledge to deliver curriculum. **3.** Mode of delivery (frequency, duration) does not impact aims. **4.** Uptake of curriculum is equally distributed across youth groups

External factors

1. Competing priorities (appeal of badges) by youth leaders/groups and youth
2. Intersectionality driving further inequity
3. Variation in curriculum delivery

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