UCW Environmental Health Widening Participation Team

OUTSTANDING ENVIRONMENTAL HEALTH TEAM

CIEH EXCELLENCE AWARDS 2019

INTRODUCTION

University Centre Weston (UCW) is working to buck the trend of declining numbers of Environmental Health graduates by making young people aware of the vital role played by Environmental Health practitioners. The lecturers and Widening Participation team joined forces in 2018 to raise the awareness of Environmental Health as a rewarding career option for today's youth by developing interactive activities to engage their interest. The team has taken these demonstrations into schools, food festivals, community events and science fairs, with their efforts culminating at the recent Big Bang Weston STEM (Science, Technology, Engineering, Mathematics) event, which was attended by a 1,000 school pupils.

Brief and objectives

Weston College of Further and Higher Education provides education to approximately 30,000 learners and is the ninth largest group of colleges in the UK. The college is based in the Somerset seaside town of Weston-super-Mare which, according to the English Index of Deprivation, has the 120th and 226th most deprived areas out of 32,844 Lower Layer Super Output Areas in England. Widening participation activities are a high priority for the college. For over ten years the college has offered Higher Education degrees including a Foundation degree in Environmental Health. This has been further enhanced by the college becoming a university centre in November 2015 and the Foundation course in Biological Laboratory Sciences in 2018. The college now has a much greater scientific agenda, which has presented an ideal opportunity to promote awareness of Environmental Health across Somerset and beyond. Although the primary objective was to get children thinking about environmental health, they wanted to engage with individuals of any age group.

Rationale

Numbers of Environmental Health undergraduates have declined over the last ten years with media reports of local government cuts, changes in the school curriculum and fewer environmental professionals available to promote the profession. This could mean that young people may not be aware of the opportunities and range of job roles in environmental health can offer.

Strategy

The University Centre Weston (UCW) Environmental Health Widening Participation team is a collective of Higher Education staff, science lecturers, technicians, students and the core environmental health teaching staff. Key members varied depending on the nature of each event with a core of the following volunteers:

- Ben Anderson - National Collaborative Outreach Programme (NCOP) Project Officer
- JJ Clark - Widening Participation & Recruitment Officer at University Centre Weston
- Dr Elena Borodina - HE Programme Coordinator FdSc Biological Laboratory Sciences
- Vicki Moth - FdSc Biological Laboratory Sciences Coordinator Vicki Moth
- Pearce Hendy - Science Technician
- David Lown - Graduate Trainee Science Technician
- Mark Hardwich - Environmental Health Curriculum Coordinator
- Higher Education Coordinator Public and Environmental Health
- UCW Student ambassadors.

Obviously, an educational establishment is dedicated to professional development and training but the activities that took place as part of this project weren't just about trying to get students to come and study for degrees. It was about the broader benefits of education, getting learners excited about science and highlighting the importance of public health to stimulate interest in Environmental Health. The strategy adopted to

fulfil these aims included getting involved with the appropriate events and festivals to engage with the public, site visits to the UCW from local school pupils and the formulation of a number of environmental health demonstrations.

Implementation

Activities in 2018 started with Noise Action Week, where the team gave advice about hearing damage on the streets of Weston Super Mare and at Burnham-on-Sea Food Festival. Sound levels in personal headphones were checked in a "Is my music damaging my hearing?" demonstration using a sound level meter and free earplugs were given out with recommendations on hearing protection.

Next, six local schools visited the UCW laboratories for a day. A fun hands-on activity "How clean is my mobile phone" using an Adenosine Triphosphate (ATP Monitor) took place. This was great for getting youngsters to think about bacteria, contamination risks, correct hand washing protocol as well as considering whether it's ok for a chef to use a mobile phone in the toilet!

Towards the end of 2018 the team repurposed these demonstrations at the UCW Christmas Community Day 2018, which was a showcase event at the Winter Garden in Weston-super-Mare, attracting over 400 people. This prepared the team for the main initiative they're most proud of - the Big Bang @ Weston event in April 2019. This event is a travelling interactive science fair which aims to raise the aspirations of young people by encouraging them to study STEM subjects and contextualising the sort of careers that STEM subjects could lead to. The team attended this event with our stand next to the likes of the Ministry of Defence, EDF, NHS, Environment Agency, the Institute of Mechanical Engineers and the Institute of Physics for two days.

Topics and activities covered on these two days included making slime, pests under the microscope, bacteria in the environment, Bioluminescence, ATP testing of smartphones, but with an added competitive element where an individual would try and achieve the lowest numerical score relating to bacterial counts, noise levels in headphones and another demonstration in the form of "How loud can I shout?" where children were invited to shout and have their noise readings taken. This was used as a moment to teach children about safe levels of playing music, in an effort to get them to use limiters on their devices. Free earplugs were given to people as a method of controlling their exposure to noise. On the first day up to 1,000 Year 7 – Year 10 school learners attended and on the second day over 1,000 members of the public attended. During this time the team made nearly 400 pots of slime, gave out over 100 pairs of earplugs and ATP tested 50 mobile phones.

Budget and cost effectiveness

The budget was £40 for 250 3M Classic earplugs, £875 for the ATP Hygiene Monitoring System and £170 for 100 test swabs. The sound level meter was generously donated for the events by a local authority. The staff volunteered their services, as promoting environmental health also promotes the college.

Measurement and evaluation

The biggest challenge is that this initiative is a long-term strategy with unsure results. If this was an initiative to boost Environmental Health students next year then it wouldn't be a success. However, If it is about getting children interested in science who might get into environmental health later in life, thinking about protecting their hearing or cleaning their phone then reaching over two thousand people in two days has got to make a difference!