

Sun Shelters – Ensuring the Adequacy of Sun Shelters

Tool Kit to promote the use of appropriate sun shelters

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Chapter 1

Sun Shelters – Ensuring the Adequacy of Sun Shelters

Introduction – aims and objectives of the Initiative

Health Challenge Wales

1. The key themes of Health Challenge Wales have been selected because they are considered to be those issues that constitute a significant proportion of the ill health that could be avoided. They are however neither exclusive nor exhaustive, and the challenge extends to include other health based interventions that promote and improve health. Whilst reducing the incidence of skin cancer is not specifically listed as a key theme, given the rising incidence of the disease it is an important issue that should be addressed.
2. This initiative seeks to reduce the risk of children being exposed to excessive amounts of sun. It specifically targets children who have the benefit of apparent protection against excessive exposure, by using sun/wind tents, which are small shelters, generally made of fabric on a wire frame, in which children can sit out of direct sun light. Most people know the sun safety message, however the evidence suggests that despite knowing the risks and the relatively simple steps that can be taken to reduce them many people take little or no preventative action. The use of such tents suggests that those having responsibility for the children are aware of the risks of excessive exposure to sunlight, and have taken steps to reduce the risk to the child. It is also clear however that not all of the tents are sufficiently robust to provide an adequate level of protection, and that children relying on them to protect them from the sun may still be over exposed.
3. Most children accumulate between 50% and 80% of their lifetime sun exposure before age 18ⁱ. Evidence also shows that children of school age get up to 70% of their annual sun dose during school summer holidays. Migration studies suggest that sunburn in childhood is most relevant to risk of melanoma. People migrating to Australia before the age of 10 have similar risk to those people born there, while those who arrived after the age of 15 had about one-third the risk of Australian-born individualsⁱⁱ. A systematic review of epidemiological studies concluded that exposure to high levels of sunlight in childhood is a strong determinant of melanoma risk but not to the exclusion of exposure as an adult.ⁱⁱⁱ SunSmart, the national skin cancer prevention campaign, therefore recommends the use of shade to prevent children and babies being overexposed to sun :

Use shade

Keep babies in complete shade: under trees, umbrellas, canopies or indoors^{iv}

4. American research suggests promising, yet inadequate, efforts by parents to protect their children from the sun.^v According to the survey, parents reported applying a sunscreen with a sun protection factor (SPF) of 15 or higher as their

most frequent sun protection behaviour (53%). Keeping children out of the sun by using shade was the second most frequent behaviour (24%) and most parents questioned recognised the cumulative value of using both forms of behaviour.

5. Whilst the suggestion that parents recognise the need to use sunscreen and shade as a method of protecting children and babies from excessive exposure to sun, it is critical that the type of shade chosen is effective at preventing the child from being exposed to sunlight. Many parents visiting outdoor locations such as beaches use 'sun tents' to protect their children. These are fabric structures, usually stretched over a wire frame, that can be staked to the ground, and allow the child to sit inside them, effectively in shade. Not all of the sun tents however use fabric which has a sufficiently high Sun Protection Factor (SPF) to give the child total protection, and the child therefore remains at risk of sun burn. To afford the child using the shelter sufficient protection it is recommended that the fabric used for the sun tent should have an SPF of at least 50.
6. This intervention seeks to reduce the risk of excessive exposure to sun and therefore potential risk of development of malignant melanoma in children by promoting use of suitably protective sun tents, which will afford high levels of protection against ultra violet light. In doing so it supports the Health Challenge Wales theme of reducing preventable disease, and is therefore consistent with the aspirations of Health Challenge Wales.

ⁱ Cancer Research UK.

ⁱⁱ Holman C.D. and B.K. Armstrong, Cutaneous malignant melanoma and indicators of total accumulated exposure to the sun: an analysis separating histogenetic types. *J Natl Cancer Inst*, 1984. 73(1): p. 75-82.

ⁱⁱⁱ Whiteman, D.C., C.A. Whiteman, and A.C. Green, Childhood sun exposure as a risk factor for melanoma: a systematic review of epidemiologic studies. *Cancer Causes Control*, 2001. 12(1): p. 69-82

^{iv} SunSmart

^v Robinson J K as reported in *Journal of American Academy of Dermatology*, May 2000

Chapter 2

Sun Shelters – Ensuring the Adequacy of Sun Shelters

Running an Initiative

1. Initial considerations

Initial considerations for this project have to be addressed, including;

- What is the target group?
- Will the initiative have the desired outcome,
- How can the target group be reached?
- Who are the key partners in the initiative?
- How will the initiative be evaluated?
- Will the initiative deliver value for money?

2. Target Group

This intervention seeks to protect children from excessive exposure to sun by ensuring that those who are using sun tents or similar structures are protected adequately by fabric of a sufficiently high SPF. Given the age of the children using the sun tents however it is not appropriate that they should be the target group and the target group therefore is those who purchase and use the sun tents to afford their children protection.

It should be noted that the target group can be widened, if those who are running the initiative consider that it is appropriate to do so, to include all users of sun tents and similar protective structures, since the use of the same is not exclusive the children. This will be a matter for local determination.

3. Achieving the desired outcome

As noted, the purpose of this initiative is to reduce the unprotected exposure to the sun. This is done by raising the awareness of the target group, i.e. those purchasing the protective structure to the need to purchase sun tents and similar structures made of fabric with a sufficiently high SPF, and thereafter to use the structure to protect their children.

There are two subgroups of the target group, being those who have not purchased sun tents, but may be considering doing so, or may be persuaded of the value of doing so by this initiative, and those who have already purchased a sun tent, but have purchased one of insufficiently high SPF. In both cases raising awareness of the need to use sun protective structures with a sufficiently high SPF is the first step. Having made both groups aware of the need to use a sun tent with a sufficiently high SPF the next step is for both groups to purchase and use such a structure. This is the desired outcome of the initiative.

The first subgroup, parents who have not yet purchased a sun tent will be the easier group to work with, since they will not have not made any investment at the time of the intervention. They may be persuaded of the value of buying an sun tent or similar protective structure with an appropriately high SPF by speaking to them and explaining the issue and by the use of leaflets setting out the salient facts, which they may consider later, and which will support the arguments previously advanced by those taking forward the initiative.

The second subgroup will be harder to work with, since they will already have made an investment by purchasing a sun tent, and may not wish to make a further investment. The purchasing of a sun tent however may indicate that they are aware of the risks of excessive exposure to sun, and have taken what they consider to be steps to prevent it. They may therefore be receptive to the message of the initiative, and willing to purchase a more suitable sun tent when the need for high SPF fabric is understood.

4. Reaching the Target Group

The target group can be reached in a number of ways, the choice of which will be a matter for local determination.

In the pilot project an exhibition stand was set up on a local family beach, and advice was given to beach users. The advice covered basic good practice in the sun, such as the use of sun screen of an appropriate SPF, use of shade, covering up with clothing and hats and wearing swim suits made of a fabric with a high SPF . Advice was also given about monitoring skin moles. This sort of contact could be made at a number of venues, including agricultural shows, sporting events and festivals, where there is prolonged exposure to the sun.

The target group can also be reached at specific venues, such as Mother and Toddler groups, nurseries and playgroups, where the same exhibition stand could be used.

The target group could also be passively targeted by leaving leaflets for self selection at baby clinics, doctors' surgeries and in shops selling clothing for babies and young children.

5. Who are the key partners in the initiative?

The key partners in the pilot of this initiative were the Environmental Health Department of the local authority, through its health promotion and trading standards staff and the NHS Trust, which provided two dermatology nurses who gave advice to visitors to the exhibition stand. The Boots Company provided individual samples of sunscreen, factor 15+ for adults and factor 50+ for children.

6. How will the initiative be evaluated?

It is not possible to measure the direct impact of this initiative in reducing skin cancer. Its purpose is to reduce the risk of the adults developing malignant melanoma due to excessive exposure to sunlight during childhood. Given the large number of factors that can cause skin cancer, and the fact that risk of developing

malignant melanoma is cumulative it would be too simplistic to try to claim that any reduction in levels of skin cancer occurring a fixed period after this intervention had any causative link to it.

It is also not possible to use a before and after intervention comparison of the number of groups using high SPF fabric sun tents on the beach as an evaluation measure, since it is highly unlikely that a like-for-like comparison could be carried out. Users of a venue such as a beach are not likely to be the same over any period of time, particularly as users of such a venue may be one-off visitors who have travelled a considerable distance to be there and may not be planning to return in the short term or at all, or may be holiday makers whose stay is short fixed term and may not be repeated.

Since the purpose of the intervention is to raise awareness of the need to use sun tents of a suitably high SPF factor it is suggested that the most appropriate way in which evaluation can be undertaken is by gathering information from those who are at the location chosen for the intervention by actively approaching them and asking them questions about what they know about the SPFs of fabrics used in sun tents and similar structures and what considerations they applied when purchasing one, if they already have one, or whether they would purchase one with a high SPF if they are contemplating such a purchase. In the pilot project researchers for over 35 sun tents on the family beach, of which only 2 showed a SPF of more than 30.

Where the intervention uses an exhibition stand which members of the target group are invited to visit the number of people visiting the stand could be used as a measure of success. Care must be taken with such a measure however, particularly if e.g. sunscreen is being given away to visitors, since the purpose of visiting the stand in such cases may not be to receive information, but rather to take advantage of the free products. Those visiting the stand could also be asked the same question as proposed above.

In either case, the asking of questions as to current knowledge and future intentions is not a satisfactory evaluation mechanism, since it relies on those questioned expressing a view as to their future behaviour, which cannot be guaranteed, however given the difficulties discussed above it is considered that it is the best method that can be used in respect of purchasing behaviour and intentions.

Where the intervention is taken forward by way of passive display of leaflets for self selection the number of leaflets taken can be used as a measure of success. Again this method of evaluation is not without difficulties, since it is not possible to extrapolate from the number of leaflets taken any pattern of future behaviour in respect of the subject matter of the leaflet, but where the location of the leaflets has been chosen such that they will be seen by and available to members of the target group the number taken can be used to indicate levels of engagement with the topic.

None of these methods of evaluation is entirely satisfactory; however this is a particularly difficult intervention to evaluate, and those undertaking it will have to take a view as to the practicality of seeking to carry out a hard evaluation in view of those difficulties discussed.

It may be helpful to consider the amount of media coverage received by the campaign. Whilst such coverage may not achieve exactly what the initiative seeks to achieve it nonetheless raises the issue of appropriate behaviour in the sun and the use of sun protection, therefore it is a valuable and complimentary addition to the campaign

7. Will the initiative deliver value for money?

Given the difficulties in evaluating this intervention discussed in paragraph 6 above, it is not possible to determine savings to the NHS in terms of reductions in malignant melanoma cases presenting for treatment or through number of lives saved. Use of sun tents of a sufficiently high SPF may save a number of children the pain and suffering associated with sun burn or sunstroke, but this is an unquantifiable benefit.

The intervention costs lie in the dressing of an exhibition stand, acquiring information material to be given to members of the public, acquiring products such as sachets of sunscreen to be given to members of the public and in officer time to staff the stand. It is therefore, *prima facie*, not an expensive intervention to run.

It cannot be argued that this intervention does deliver value for money. Undoubtedly it can be a very cheap intervention, but since evaluation of it is difficult and unquantifiable in financial terms the case for it delivering true value for money is impossible to make. It can however be claimed that raising levels of awareness of the factors which can lead to the development of skin cancer in later life and the steps that can be taken to reduce that risk must be of benefit to the individuals who interface with the intervention, as they may be encouraged to make changes in their behaviour thereby reducing their personal risk. It may also be claimed that there is benefit if those who have care and custody of young children, the group most at risk from excessive sun exposure, take enhanced steps to protect the children in their care. Both of these are positive and long lasting benefits of the initiative, which therefore can claim to deliver good value for the money invested in it.

Chapter 3

Sun Shelters – Ensuring the Adequacy of Sun Shelters

The Campaign

Raising awareness of the risks to children of using sun shelters with an insufficiently high SPF.

Preliminary Work

1. A number of decisions need to be made by those carrying out this initiative before it commences. The first decision to be made is the nature of the intervention. It can be conducted by use of an exhibition stand to be strategically placed in a location which will be frequented by the target group. If this is the case the material for the exhibition stand and the location for it will have to be selected. If the campaign is to be passive leaflet provision for self selection the locations for the placing of leaflets will have to be determined. Where the partners to the initiative decide to produce a leaflet which is specifically on point in respect of high SPF sun tents and carries information of local relevance as well, this must be designed and produced. Suggested content for a leaflet is shown as [Appendix 1](#). Leaflet stations should be monitored and restocked on a regular basis to ensure adequacy of supply.
2. Higher levels of interest are generated when members of the public can take something of value away from a stand that they have visited. This helps to underline the message being promoted, as well as acting as an allure to encourage visits to the stand. In the pilot project sachets of sunscreen were provided to visitors to the stand, which had been sourced from a local chemist. Other suggested 'lures' are 'T' shirts bearing a suitable sun safe message, and hats. Consideration should also be given to purchasing examples of the sort of sun tents and sun clothing which are appropriate, in order to allow inspection of them by visitors to the stand. Photographs of a suitable sun tent and protective clothing as shown as [Appendix 2](#) and [Appendix 3](#) respectively. Consideration can also be given to working with a manufacturer of such equipment, who may be willing to give discount vouchers against purchase of suitable clothes or equipment or reduced prices for on-the-day-purchases as a further inducement. The partners to the initiative do not have to endorse the specific product or product line, but rather cite it as one example of the type of product that would be suitable. Where this is done redemption of vouchers or on the day purchases can be used as an indicator of success for the initiative.
3. Timing of the initiative is essential to ensure maximum impact. Where passive leaflet stations are to be used these should be active before the start of summer, in order to influence the buying behaviour of people planning to purchase a sun tent for use during hot weather. Where an exhibition stand is to be used it is vital

that there will be sufficient people near to it to justify its being used. Therefore it is suggested that the most appropriate time for the intervention is during the school summer holidays, when children get up to 70% of their annual sun dose, and when families are most likely to be visiting locations where inappropriate sun behaviour is most often demonstrated, such as beaches.

Conducting the Intervention

4. If the campaign is limited to, or will incorporate, passive leaflet stations the location for the leaflet stations should be selected and stocked. These should be locations which will be visited by the target group, such as Mother and Toddler clubs, doctors' surgeries and baby clinics, shops that sell children's clothes and toys, nurseries and playgroups and primary schools. Sufficient supplies of leaflets should be placed at each of the chosen locations prior to the commencement of the initiative. Where the number of leaflets taken is to be used as a measure of success the number of leaflets left at each location should be known
5. Where the campaign is to be conducted using an exhibition stand the stand should be located at a suitable venue and staffed during the time that it is there. Where number of visits to the stand is to be used as a measure of success these should be recorded during the time that the stand is active, where a questionnaire is to be used with visitors to the stand, or a pre-determined proportion of them should be approached and asked to complete the questionnaire. Suggested questions to be included on the questionnaire are shown as [Appendix 4](#). The exhibition stand can be moved to alternative suitable locations as appropriate and can be left in situ for as long as considered to be valuable by those conducting the initiative.

Following up the Initiative

6. Once the initiative has finished it is useful to determine how successful the campaign was. This can be done by using the indicators of success discussed in Chapter 2, as well as considering the amount of media coverage the campaign attracted, since this can also be a useful way of promoting the sun awareness messages. Measuring the success of the initiative in the long term is difficult. It may be possible to re-run the event the summer following the first running, but given that it is unlikely that the members of the target group that interfaced with the initiative on its first running will return to the area in sufficient numbers to make comparison meaningful the value of this may be very limited.

Appendix 1

Sun Shelters

Suggested content for Leaflet

1. Children are the group most at risk from the sun.
2. People get 50-80% of their life time exposure to sun by the time they are 18 years old.
3. Children of school age get up to 70% of their annual sun dose during the school summer holidays.
4. The sun's rays reflect water and bright surfaces.
5. The SunSmart sun safety messages :
 - **S**pend time in the shade between 11 and 3
 - **M**ake sure you never burn
 - **A**im to cover up with a t-shirt, hat and sunglasses
 - **R**emember to take extra care with children
 - **T**hen use factor 15+ sunscreen
6. When using a sun tent or similar, make sure it is of a sufficiently high Sun Protection Factor (50+)
7. Make sure the small children are properly protected – in sun suits and hats of a sufficiently high Sun protection Factor
8. Any local Sun Safety Messages

This suggested list is neither exhaustive nor exclusive

Appendix 2



Appendix 3



Appendix 4

Appendix 4

Sun Shelters

Draft Questionnaire

Questions	Response	Instructions
1. Do you know what the 5 key SunSmart sun safety messages are?		
2. Do you know what SPF stands for?		
3. Do you know what SPF sun screen you should use to protect adult skin?		
4. Do you know what SPF you should use to protect the skin of children and babies?		
5. Did you know that you can buy sun/swim clothing for children that have a SPF?		If Yes go to Q6 If No go to Q7
6. Have you ever bought some?		
7. Would you consider buying some to protect your child or yourself?		If Yes go to Q8 If No provide information to encourage purchase of SPF 50+ clothing
8. Did you know that you can buy sun tents/ sun shelters that have a SPF ?		
9 Did you know that a sun tent/ shelter should have an SPF of 50 + to be fully effective?		
10. Do you have sun tent/ sun shelter?		If Yes go to Q11 If No go to Q
11. Do you know what SPF it is?		If Yes go to Q12 If No go to Q 14
12. Is it less than SPF 50?		If Yes go to Q13
13. Would you consider replacing it with one with an SPF of 50+ ?		If Yes, stop. If No provide information to encourage purchase of SPF 50+ equipment
14. Are you considering buying a sun tent/sun shelter?		If Yes go to Q15 If No provide information to encourage purchase of SPF 50+ equipment
15. Will you seek to purchase a sun tent / sun shelter of SPF 50+?		If Yes, stop. If No provide information to encourage purchase of SPF 50+ equipment

Answers

1.
 1. Spend time in the shade between 11 and 3
 2. Make sure you never burn
 3. Aim to cover up with a t-shirt, hat and sunglasses
 4. Remember to take extra care with children
 5. Then use factor 15+ sunscreen
2. Sun Protection Factor
3. Sun Protection Factor 15 +
4. At least Sun Protection Factor 30, preferably Factor 50+

