Cancer prevention is a cornerstone of the National Cancer Strategy as it offers the most cost effective, long term approach for cancer control\(^1\). Over 11,000 cases of skin cancer are diagnosed annually\(^2\). This is twice the number compared to 10 years ago and is projected to more than double again by 2045\(^3\).

Addressing this rising incidence of skin cancer, the Cancer Strategy prioritises the need to develop and implement a national skin cancer prevention plan\(^1\).

The aim of this study is to explore people’s knowledge, attitude and behaviour in relation to sun protection. An online survey was developed based on similar work done in Australia and Northern Ireland. The survey was carried out during March and April 2019. This country-wide online survey of adults over 18 gives an insight into the current attitudes and beliefs about skin protection.

A total of 1051 respondents aged 18 and above were included in the final analysis (43% male, 57% female). There were respondents from all counties in the Republic of Ireland with the highest number from Dublin followed by Cork and Galway. Half of respondents reported their natural skin colour as very fair/freckled or fair, 45% as medium or olive and 5% as dark or black.

**Exposure to UV**

Ultraviolet (UV) radiation is the main risk factor responsible for skin cancers. It is emitted naturally from the sun and also comes from artificial sources such as sunbeds. Almost half of respondents (45%) stated their main source of UV exposure was ‘being out and about’ while a quarter (23%) stated ‘travel abroad’. During the previous 12 months, over two thirds of respondents (68%) spent a week or longer abroad or on holidays where the sun normally shines while 14% spent four weeks or more.

Sunbeds are the most common artificial source of UV. Sunbeds work by exposing the user to UV radiation. Exposure to sunbeds increases the risk of developing skin cancer, a risk which can be avoided by not using sunbeds. IARC classifies the use of UV-emitting tanning devices, such as sunbeds, as carcinogenic to humans\(^4,5\).

Overall 40% of all respondents have ever used a sunbed (29% of males and 49% of females) and 5% of males and 6% of females stated that they currently use sunbeds. Age is a significant factor for current sunbed use with 11% of those aged under 35 currently using sunbeds compared to 2% of those aged 35 years and older. This highlights an area where targeted information to increase awareness among a particular age demographic is needed to reduce the risk of skin cancer.
Sunburn
Results show 92% of respondents have experienced sunburn at least once in their lifetime with many recalling multiple episodes. It is of concern that almost 50% of respondents experienced sunburn at least once in the past 12 months. A higher proportion of males (38%) have experienced sunburn while working outdoors compared to females (23%). This highlights the need for an increased awareness of the risks of UV exposure and sunburn among those who work outdoors, one of the target groups in the Skin Cancer Prevention Plan.

Sun protective behaviours
Sunscreen is the most commonly used sun protective behaviour, used by almost three-quarters (73%) of respondents. The use of sunscreen is higher among females (81%) compared to males (62%). Only one third of respondents (36%) use shade as a sun protection measure. There is a need for increased awareness that shade and clothing be used as first-line defence against the sun with sunscreen used for additional protection.

It is of concern that almost one in ten respondents (9%) take no skin protection measures.

Exposure to UV radiation during childhood is particularly harmful. Children and young people are particularly vulnerable. UV exposure during the first 10–15 years of life makes a disproportionately large contribution to lifetime risk of skin cancer. Severe sunburn during childhood (3 or more instances before the age of 20) is associated with a 2-4 times higher risk of developing melanoma in later life. To minimise this risk, skin protection during childhood is extremely important. Of those who care for children under 12 years, sunscreen was also the most commonly used sun protection with 86% reporting using sunscreen as sun protection for their children. Similar to the findings among adults, there was a lower use of other skin protective behaviours such as shade and clothing highlighting the capacity to increase these behaviours among children as well as adults.

Attitudes to tanning
This study examined attitudes to tanning among the population. Almost two thirds (64%) of respondents felt that a suntan makes them feel more healthy. Just over one in three (34%) agreed that it was worth getting a little sunburnt to get a tan. This was higher among males (37%) than females (31%). More females than males (65% vs 55%) agreed that a suntan makes them feel more attractive and similarly, more females than males (60 vs 51%) agreed than a suntan makes them feel more confident. These results show that further efforts are needed to change attitudes to tanning and raise the awareness of the risks associated with UV exposure.

This exploratory study has yielded significant insights in to the current knowledge, attitude and behaviours in relation to sun protection among the population living in Ireland. The skin cancer prevention plan in combination with the findings of this study will inform future work in the attempt to reduce the rising incidence of skin cancer. This research will serve as a useful baseline to which future research can be compared.

A full report will be published in the coming weeks.
References: