

Summary: Intervention & Options

Department /Agency:
Department of Health

Title:
Impact Assessment of Sunbed Regulation Bill

Stage: FINAL

Version:

Date:

Related Publications: The health effects and risks arising from exposure to ultraviolet radiation from artificial tanning devices. Committee on Medical Aspects of Radiation in the Environment, 2009.

Available to view or download at:

http://www.comare.org.uk/comare_docs.htm.

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What is the problem under consideration? Why is government intervention necessary?

The incidence of skin cancer is rising rapidly and one area of concern is the use of cosmetic tanning salons particularly by children and young people. A recent report of the Committee on Medical Aspects of Radiation in the Environment (COMARE) has confirmed that ultraviolet radiation, including that from sunbeds, is capable of inducing skin cancer particularly in the first two decades of life. As a result, COMARE specifically recommended a prohibition on allowing under 18s to use sunbeds. The prohibition is based upon evidence that risks of sunbed use may be great at younger ages, and on the assumption that under 18 year olds may not fully realise the risks of sunbed use and may therefore be making an ill-informed decision about use of sunbeds.

What are the policy objectives and the intended effects?

The policy objective is to prevent the use of sunbeds by people under the age of 18, thus protecting them from the risk of developing skin cancer in the future. In order to do this the intention is to legislate to make it an offence for an operator of commercial sunbed premises to allow someone under the age of 18 to access sunbeds.

What policy options have been considered? Please justify any preferred option.

1. Do nothing over and above providing education and guidance as at present
2. Legislate to introduce an age restriction for the use of sunbeds in commercial premises

The preferred option is to legislate. All the evidence suggests that existing policies are not preventing children from using sunbeds in significant numbers, and that legislation is the only way to deter sunbed operators allowing such access. For example, some sunbed operators have codes of practice which forbid use by certain age groups. Generally, however, these only cover those under 16 years, and the operators involved only account for a proportion of the total sunbed industry.

When will the policy be reviewed to establish the actual costs and benefits Three years after the date of commencement of the legislation (expected at April 2014)

Ministerial Sign-off For final proposal/implementation stage Impact Assessments:

I have read the impact assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, and (b) the benefits justify the costs.

Signed by the responsible Minister:

Date: 15.1.10



Summary: Analysis & Evidence

Policy Option: 2

Description: Introduce legislation to prohibit the use of sunbeds by under 18 years old in commercial premises and take discretionary powers to make further regulations regarding sunbeds

COSTS	ANNUAL COSTS		Description and scale of key monetised costs by 'main affected groups' Cost of enforcement of age restriction. The level depends upon the enforcement regime however it is agreed that prior to knowledge of resources from the next Spending Review the cost to local authorities will remain under £0.1 million
	One-off (Transition)	Yrs	
	£ unknown		
	Average Annual Cost (excluding one-off)		
	£ 88,000		Total Cost (PV) £ 792,000
Other key non-monetised costs by 'main affected groups' Costs to criminal justice system. These are assumed to be minimal as prosecutions will be conducted by Environmental Health Officers; Costs to sunbed industry. These are also assumed to be minimal following discussions with industry representatives. Potential lost consumer surplus to under 18 year old sunbed users.			

BENEFITS	ANNUAL BENEFITS		Description and scale of key monetised benefits by 'main affected groups'. Reduced number of deaths from skin cancer as a result of age restriction. Reduced costs to the NHS from treating skin cancer cases as a result of age restriction. Reduced number of deaths from skin cancer as a result of age restriction. Reduced costs to the NHS from treating skin cancer cases as a result of age restriction.
	One-off	Yrs	
	£ 0		
	Average Annual Benefit (excluding one-off)		
	£ 1.31 million		Total Benefit (PV) £ 13.2 million
Other key non-monetised benefits by 'main affected groups'			

Key Assumptions/Sensitivities/Risks The costs to the sunbed industry are based on the main proposal which is to prohibit access to sunbeds by minors. Any additional proposals, such as a ban on coin-operated sunbeds, would have additional effects and would therefore be subject to further consultation.

Price Base Year 2008	Time Period Years 10	Net Benefit Range (NPV) £ unknown	NET BENEFIT (NPV Best estimate) £ 12.4 million
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What is the geographic coverage of the policy/option?		England and Wales		
On what date will the policy be implemented?		April 2011		
Which organisation(s) will enforce the policy?		Local Authorities		
What is the total annual cost of enforcement for these organisations?		£ 0.1 million		
Does enforcement comply with Hampton principles?		Yes		
Will implementation go beyond minimum EU requirements?		N/A		
What is the value of the proposed offsetting measure per year?		£ N/A		
What is the value of changes in greenhouse gas emissions?		£ N/A		
Will the proposal have a significant impact on competition?		No		
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
Are any of these organisations exempt?	No	No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)				(Increase - Decrease)
Increase of	£	Decrease	£	Net Impact £

Key: Annual costs and benefits: Constant Prices (Net) Present Value

Evidence Base (for summary sheets)

[Use this space (with a recommended maximum of 30 pages) to set out the evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Ensure that the information is organised in such a way as to explain clearly the summary information on the preceding pages of this form.]

1 Introduction

- 1.1 This Impact Assessment illustrates the costs and benefits if legislation were used to prohibit the use of sunbeds in commercial premises by people under the age of 18 and applies to the proposal to legislate for England and Wales.

2 Background

- 2.1 In 2007 the Department of Health launched its Cancer Reform Strategy to set a clear direction for cancer services for the next five years. One area of focus was skin cancer and the review of options for regulation of the sunbed industry. The incidence of skin cancer in the UK continues to rise.
- 2.2 The World Health Organisation (WHO) recommends that there should be effective laws governing the use of sunbeds. The International Agency for Research on Cancer (IARC) now categorises sunbeds in the highest cancer risk category—group 1—'carcinogenic to humans'.
- 2.3 The Sunbed Association estimate that there are around 8000 tanning facilities in the UK. Regulation of the sunbed industry in England and Wales is largely unmonitored although certain areas have local licensing arrangements.

3 Rationale for Intervention

- 3.1 Department of Health policy for many years has been that the cosmetic use of sunbeds, especially by children, should strongly be discouraged.
- 3.2 The Committee on Medical Aspects of Radiation and the Environment recently published their thirteenth report "The Health Effects and Risks Arising from the Exposure to UV Radiation from Artificial Tanning Devices". This report provides evidence that ultra violet radiation, including that from sunbeds, is capable of inducing skin cancer. The report recommends that children under the age of 18 are prohibited from being allowed to use sunbeds.
- 3.3 WHO recommends that the highest regulatory priority should be the restriction of use of sunbeds by persons under 18 years. In July 2009 IARC moved sunbeds up to the highest cancer risk category—group 1—'carcinogenic to humans'. The use of sunlamps and sunbeds was until then classified as "probably carcinogenic to humans".
- 3.4 Over 10,400 cases of malignant melanoma were recorded in the UK in 2006. An article by Brian Diffey "A quantitative estimate of melanoma mortality from ultraviolet A sunbed use in the UK" suggests that possibly 100 or so people might die each year as a direct result of using sunbeds. Using sunbeds at a young age (before the age of 35) increases the risks of getting cancer by up to 75%.
- 3.5 In line with the commitment given in the Cancer Reform Strategy, Cancer Research UK were commissioned to carry out a survey of sunbed use. The results received show that:
 - 6.0% of children in England aged 11-17 years have used a sunbed
 - 14.9% of children in England aged 11-17 years said they had not used a sunbed but may do so in the future

- 11.2% of children in England aged 15-17 had used sunbeds compared with 1.8% of 11-14 year olds

- 3.6 These findings shows that a significant proportion of people under the age of 18 have used a sunbed.
- 3.7 Cancer Research UK estimate that amongst 11-17 year olds in England there were approximately 2.7 million separate episodes of sunbed use in tanning/beauty salon/gym/leisure centres in the previous year.
- 3.8 These findings represent a significant burden of avoidable risk to children under the age of 18, so a prohibition on the use of sunbeds in commercial premises for this age group would be a proportionate step.
- 3.9 The Health and Safety at Work Act 1974 applies to sunbed operators, in the same way that it applies to all employers, but this legislation does not offer any scope to regulate on the minimum age of the consumer. Although the Health and Safety Executive has recently updated its guidance "INDG209 - Reducing health risks from the use of ultraviolet (UV) tanning equipment", this guidance is not binding.
- 3.10 Voluntary action by the sunbed industry has not been successful to date, partly because the industry is fragmented and action varies. The Sunbed Association (TSA) (which we understand represents about 25% of the estimated 8000 tanning facilities in the UK) has a code of practice prohibiting children under 16 from using sunbeds and requiring staff to be present. Of the coin-operated sunbed operators, Consol state that they "... operate a strict and effective no under 16s policy". It is not clear what, if any, measures other sunbed operators take to restrict access to children.

4 Policy Objective of the proposed legislation

- 4.1 The overarching objective is to reduce the incidence of skin cancer. The regulation of sunbeds has been identified as an area which can contribute significantly to achieving this objective.
- 4.2 The objective of the proposed legislation is to prevent the use of sunbeds by people under the age of 18. The intention is to legislate to make it an offence for an operator of commercial sunbed premises to allow someone under the age of 18 to use or access sunbeds. The legislation will also include regulation-making powers which will allow for further regulation of sunbeds.

5. Links to other policy areas/strategies/programme of work

- 5.1 The Cancer Reform Strategy, 2007, commits the Department to measures to reduce the overall burden of cancer to the community. Skin cancer is probably the commonest cancer overall and has a clearly identifiable risk factor, namely exposure to ultraviolet radiation. There is also evidence that there is a trend for sunbed outlets to be located increasingly in areas of high deprivation. Legislation to prevent sunbed use by minors would be consistent, therefore, with the role of a Department of State to protect those who cannot protect themselves, and those who are particularly vulnerable.

6 Options

- 6.1 The following policy options have been considered:

Option 1: Do nothing and retain the status quo relying on current voluntary regulation, local licensing arrangements and guidance from the Health and Safety Executive.

Option 2: Introduce legislation to prohibit the use of sunbeds by under 18 years old in commercial premises and take discretionary powers to make further regulations regarding sunbeds.

7 Costs and Benefits of Option 2

Costs to sunbed industry

7.1 Discussions with representatives of the sunbed industry have not suggested any major financial costs to them of the intended ban on allowing access to sunbeds by under 18 year olds, nor that they would face serious practical difficulties in complying with the proposed ban.

Costs to local authorities (LAs)

7.2 The legislation does not require a regular timetable of inspections of premises. Environmental Health Officers (EHOs) already have duties in respect of some sunbed premises in respect of health and safety at work legislation. However EHOs do not currently have powers to inspect in relation to the age of the customer. Therefore the proposed legislation will give new power to the local authorities and will impose a duty on local authorities to enforce the legislation.

7.3 Legislation banning under 18 use will have far more weight than current guidance, and therefore likely to be complied with if there is DH-led direct contact with the salons advising them of their new duty together with media coverage. Local Authorities Coordinators of Regulatory Services (LACORS) estimate that c5% of commercial sunbed salons may continue to allow under 18s to use sunbeds despite the ban. These premises may be identified to LAs either by public complaint or reports of burns to under 18s, as at present. They argue that complaints are likely to be low in number and the burden would be subsumed into the routine LA investigation workload. On this basis they estimate that, this option (the least expensive way to enforce the legislation) would cost an additional £88,000 per annum resulting from a legislative ban on under 18 use of commercial sunbeds.

7.4 There are other enforcement regimes which would cost significantly more than this and a decision on whether these more expensive enforcement options are affordable will be made once resources available in the next Spending Review are known.

7.5 An annual cost of £88,000 summed and discounted over ten years gives a total of **£792,000**.

Costs to other sectors including the criminal justice system

7.6 It is anticipated that prosecutions under the legislation will be conducted by EHOs and the LACORS estimate that even these prosecutions are likely to be very low in number. The costs to the magistrates' courts are therefore likely to be insignificant.

Other non-monetised costs

7.7 The prohibition of sunbed use to those under 18 would create a loss in consumer surplus to those in the group that currently use sunbeds. Consumer surplus is an estimate of the total benefit accrued to consumers from consumption of a good over and above their total expenditure on the good in question. Prohibition of sunbed use would lose this benefit however, as argued in this Impact Assessment, consumers under 18 may not be able to adequately weigh the perceived benefits of using sunbeds against the risks. An example calculation however is presented in the Technical Appendix.

Benefits

7.8 There is substantial research on the incidence of, and deaths arising from forms of skin cancer. A review by Cancer Research UK estimate that approximately a quarter of a million children in England aged 11 to 17 had used a sun bed in the previous year. This represents a substantial and avoidable increased risk of ill health and death. The proposed legislation would correspondingly lead to a positive health benefit as well as reducing the NHS costs of treating skin cancers.

7.9 The recent report by the Committee on Medical Aspects of Radiation and the Environment (COMARE) estimates that total sunbed use could account for approximately 370 new cases of melanoma and 100 deaths each year in the UK. These figures are applied to an estimate for the proportion of under 18 year old sunbed users in England which gives the number of skin cancer cases and deaths saved per annum as a result of the age restriction of 8 cases and approximately 2 deaths. These are then monetised to give the following benefits (for more detailed information as to how they were calculated see the Technical appendix):

- **Savings to the NHS** from reduced skin cancer cases: £16,100 per annum
- **Monetised life years saved** from reduced skin cancer deaths: £1.30 million per annum

7.10 Summing these figures and discounting according to accepted Green Book methods gives a total discounted benefit of **£12.3 million** over 10 years.

8 Risks

8.1 There is a risk that a prohibition on allowing access to sunbeds by people under 18 years in commercial premises could lead to an increase in use in other settings such as within domestic premises. However it is considered that these potential “displacement” effects can be monitored through further surveys of sunbed use by minors and the proposed additional regulation-making powers could be exercised in the future if necessary.

9 Specific Impact Tests

Competition Assessment

9.1 A prohibition on the use of sunbeds on commercial premises by under 18 years olds:

- would not directly limit the number or range of suppliers
- would not indirectly limit the number or range of suppliers
- would not limit the ability of suppliers to compete and
- would not reduce suppliers' incentives to compete vigorously

Small firms impact test

9.2 The proposed ban will apply equally to all operators of sunbeds. The Department of Health have engaged with representatives of the sunbed industry, such as those from trade associations, who have indicated that the financial costs to them would not be major. The Sunbed Association, who represent approximately 20% of the sunbed industry, have an existing policy to prohibit use by those under 16 years, and have advised us that some of their members already prohibit use by those under 18 years. Consol Suncentre have advised us that they “... operate a strict and effective no under 16s policy”. We also have spoken to trade associations whose members include hotels, leisure and fitness outlet and beauty therapy fitness areas. Many fitness gyms already have 18 years as an age limit and the trades also have members who run membership schemes, so most members would be over 18 years.

9.3 In order to ensure that small businesses have adequate time to implement the legislation, it is intended to allow one year between Royal Assent and commencement of the Act.

Will your policy have a significant impact on human health by virtue of its effects on the wider determinants

- 9.4 The proposed policy should result in a significant reduction in the incidence of skin cancer in the long run, and in the short term is likely to reduce the prospect of young people being involved in an accident or burning incident related to sunbeds. This is particularly so in respect of young people with fair skins, moles, and a family history of skin cancer. For those young people requiring UV for medical reasons, this should be available as a course of treatment in a clinical environment.
- 9.5 In terms of health inequalities, there are concentrations of sunbed salons in some northern cities, often associated with deprivation. The relatively inexpensive cost of sunbed salon sessions in many establishments places it within the reach of the pocket money/earnings of young people.
- 9.6 The prohibition will create a criminal offence for the operators of sunbed salons and increase the level of regulation on business. It will also place an onus on business to ensure that measures are taken to comply with the requirements of the law. The reduction in business for most sunbed salons though is estimated to be negligible, and to have little economic impact. There may be ongoing central costs, for example, in support of the under 18 prohibition in raising awareness and related health education for young people and the wider public.

Will there be significant impact on any lifestyle related variables

- 9.7 Prohibiting the use of sunbeds salons by under 18s is likely to reduce the prospect of young people being involved in an accident or burning incident related to sunbeds. There is the risk though that home sunbed facilities may become more popular, but we will monitor this and are considering ways in which it could be dealt with.

Is there likely to be a significant demand on any of the health and social care services.

- 9.8 Prohibiting under 18s from using sunbed salons is likely to reduce the call on health services particularly accident and emergency and primary care and the need for pharmaceutical products that will relieve pain and burning injuries. The prohibition will also reduce the longer-term pressure on the health service by reducing the incidence of skin cancer and the need for treatment.

Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	No
Small Firms Impact Test	Yes	No
Legal Aid	No	No
Sustainable Development	No	No
Carbon Assessment	No	No
Other Environment	No	No
Health Impact Assessment	Yes	No
Race Equality	No	Yes
Disability Equality	No	Yes
Gender Equality	No	Yes
Human Rights	No	Yes
Rural Proofing	No	No

Annexes

EQUALITY IMPACT ASSESSMENT

Title and description of the policy

Sunbed Regulation Bill

In 2007 the Department of Health launched its Cancer Reform Strategy to set a clear direction for cancer services for the next five years. One area of focus was skin cancer and the review of options for regulation of the sunbed industry. The incidence of skin cancer in the UK continues to rise.

Department of Health policy for many years has been that the cosmetic use of sunbeds, especially by children, should be discouraged because of the associated increased risk of skin cancer and other health problems. We have tried to prevent such use by voluntary means, and through existing legislative instruments. However, we now have evidence that, despite this, children are using sunbeds in significant numbers.

A recent report of the Committee on Medical Aspects of Radiation in the Environment (COMARE) has confirmed that ultraviolet radiation, including that from sunbeds, is capable of inducing skin cancer, and specifically recommended a prohibition on allowing under 18s to use sunbeds. Scotland and some other countries have already legislated in this regard or are in the process of doing so.

The policy objective is to prevent the use of sunbeds by people under the age of 18, thus protecting them from the risk of developing skin cancer in the future. In order to do this the intention is to legislate to make it an offence for an operator of commercial sunbed premises to allow someone under the age of 18 to access sunbeds.

We consider that new legislation is likely to be the only effective way to bring such a ban into force and to prevent children from being placed at risk.

The evidence base

- How is the policy likely to affect the promotion of equality and elimination of discrimination in the areas of:
 - age
 - disability
 - gender (including transgender)
 - race
 - religion or belief
 - sexual orientation, and
 - human rights

- How will the policy meet the needs of different communities and groups?
- Provide details of any consultation that has already been undertaken which is relevant to the development of this policy?
- Are there any examples of existing good practice in this area, e.g. measures to improve access to the policy among particular groups?

Age

Committee on Medical Aspects of Radiation in the Environment (COMARE) Thirteenth Report "The health effects and risks arising from exposure to ultraviolet radiation from artificial tanning devices."

Cancer Research UK Study of Sunbed use in children Summary Report: July 2009

Cancer Research UK – Qualitative Exploration of Underage Use of Sunbeds February 2009

Cancer Research UK study of sunbed use in children – final quantitative report

Brian Diffey "A quantitative estimate of melanoma mortality from ultraviolet A sunbed use in the U.K." British Journal of Dermatology 2003: 149: 578-581

Gender

COMARE Thirteenth Report "The health effects and risks arising from exposure to ultraviolet radiation from artificial tanning devices."

Cancer Research UK Study of Sunbed use in children Summary Report: July 2009

Cancer Research UK – Qualitative Exploration of Underage Use of Sunbeds February 2009

Cancer Research UK study of sunbed use in children – final quantitative report

Brian Diffey "A quantitative estimate of melanoma mortality from ultraviolet A sunbed use in the U.K." British Journal of Dermatology 2003: 149: 578-581

Race

COMARE Thirteenth Report "The health effects and risks arising from exposure to ultraviolet radiation from artificial tanning devices."

Disability/Religion or Belief/Sexual Orientation

No evidence to suggest an impact on disability, religion or belief, or sexual orientation.

Human Rights

We do not expect the proposed policy to have any significant human rights impacts

What the evidence shows – key facts

Over 10,400 cases of malignant melanoma were recorded in the UK in 2006. An article by Brian Diffey "A quantitative estimate of melanoma mortality from ultraviolet A sunbed use in the UK" suggests that possibly 100 or so people might die each year as a direct result of using sunbeds. Using sunbeds at a young age (before the age of 35) increases the risks of getting cancer by up to 75%.

Age

The recent COMARE report cites evidence from the International Agency for Research on Cancer Working Group, 2005, which suggests that there is an increase in melanoma risk in later life associated with the use of sunbeds by young people in their tens and twenties.

In line with the commitment given in the Cancer Reform Strategy, Cancer Research UK were commissioned to carry out a survey of sunbed use. The results received show that:

- 6.0% of children in England aged 11-17 years have used a sunbed
- 14.9% of children in England aged 11-17 years said they had not used a sunbed but may do so in the future
- 11.2% of children in England aged 15-17 had used sunbeds compared with 1.8% of 11-14 year olds

These findings show that a significant proportion of people under the age of 18 have used a sunbed.

Disability

There is no evidence that disabled people are affected any differently than anyone else. This is a population wide concern affecting individuals under the age of 18 years, regardless of ability or disability.

Gender (including transgender)

A questionnaire survey to assess the awareness of tanning guidelines, the use of sunbeds and the attitude towards tanning in 499 adolescents aged between 14 and 16 years was carried out in two schools in a mixed urban part of Merseyside (Mackay et al, 2007). The investigators found that sunbeds had been used by 43% of respondents; girls had used them much more than boys, with use increasing by age for both sexes.

A review of indoor tanning by adolescents (Lazovich and Forster, 2005) found that prevalence is consistently higher among girls than boys and increases with age in both Europe and the USA. What actually constitutes prevalence in this context has been defined variously as any use, use in the past 6 or 12 months, or frequent use in the past 12 months and this varying definition explains why, in

their review of 12 studies, Lazovich and Forster (2005) found that prevalence use by young female adolescents varied from 14% to 75%, with a mean value weighted by sample size of 43%. A comparative weighted mean prevalence for young males was 18%.

Race

The COMARE report cites evidence that even a small amount of pigmentation due to ethnic origin may have a significant protective effect against the acute effects of UV radiation exposure.

Religion or belief

There is no evidence that individuals are affected any differently based on their religion or belief. This is a population wide concern affecting individuals under the age of 18 years, regardless of religion or belief.

Sexual orientation

There is no evidence that individuals are affected any differently based on their sexual orientation. This is a population wide concern affecting individuals under the age of 18 years, regardless of sexual orientation.

Evidence suggests that sunbed use by under 18s is not necessarily related to social class although there are concentrations of sunbed salons in some northern cities, often associated with deprivation. However, this may be attributable to cultural rather than socio-economic factors.

Challenges and opportunities

- What measures does, or could, the policy include to address existing patterns of discrimination, harassment or inequality?
- What impact will the policy have on promoting good relations and wider community cohesion?
- If the policy is likely to have a negative effect, what are the reasons for this?
- What practical changes will help reduce any adverse impact on particular groups?
- What will be done to improve access to, and take-up of, services or understanding of the policy?
- What can be done in terms of procurement to promote equality and eliminate discrimination?

COMARE conclude that the health risks of using sunbeds outweigh any

perceived benefits.

There may be displacement risks in young people taking up sunbed use in settings other than commercial premises and it is intended to conduct further surveys with people under the age of eighteen to monitor the effect of the prohibition and gather evidence of displacement activities, if any.

Department of Health will prepare guidance for sunbed operators to enable them to implement the policy. The policy also includes a proposal that further regulations could be made to impose a duty on operators of commercial sunbed premises to provide detailed written information on health risks associated with sunbed use to users.

The policy also includes other proposals for further regulation of sunbeds.

Generally, the impact of the policy will be monitored through surveys, discussions and consultation with the sunbed industry and users, as Department of Health consider necessary.

It is hoped that existing organisations, at national and regional level such as the National Cancer Action Team and Cancer Networks, can assist in providing education and guidance on the health risks associated with sunbed use generally and by young people in particular. The role of the National Cancer Action Team is to support the NHS and facilitate the implementation of the Cancer Reform Strategy.

Equality Impact Assessment

The policy could have an impact on equality on the grounds of age, ethnicity / race and gender. The impact is likely to be on the basis of exclusion of these groups from an activity which has the potential to harm their health. Details of the likely impact is illustrated in the relevant sections above. Overall an adverse impact is unlikely.

Next steps

Plans that are already under way or under active consideration to address **challenges and priorities** highlighted.

- Arrangements for continued **dialogue and involvement with stakeholders**.

The Department will continue to involve stakeholders in discussions around the evaluation of monitoring data.

- Arrangements for **monitoring and evaluating** the policy for its impact on different groups throughout the policy making process and as the policy is implemented.

The Department of Health and Health Protection Agency will monitor data on cases of skin cancer over a number of years to see if there is evidence of a

reduction in skin cancer cases. Because of the length of time that can elapse between the use of sunbeds and any incidence of skin cancer it is difficult to provide a time frame for monitoring but this is intended to be an ongoing process. The intention is that, as soon as possible after the ban has been introduced, the Department of Health would monitor the impact on different groups.

- Arrangements for ensuring that evaluations of any **pilot projects** take account of the concerns and discussions outlined in the assessment, and that they are assessed to check that they are delivering the intended impact.

N/A

- Arrangements for discussing with **other agencies, service providers, Non-Departmental Public Bodies (NDPBs) and regulatory bodies** the scope for taking account of the concerns and discussions in the assessment.

Any report on the evaluation of data from the monitoring period will be subject to consultation with registered stakeholders where all concerns will be addressed.

- Arrangements for ensuring that the assessment is brought to the attention of all relevant **colleagues**, and in this contributing to reviews of the Department's Single Equality Scheme (SES)

All relevant colleagues within the Department of Health will be kept updated with any new data and results of any evaluation. Once an evaluation of data is carried out, the policy will be reviewed as necessary and any relevant equality findings will inform the Department's Single Equality Scheme.

- Arrangements for **disseminating information** about the assessment to all relevant stakeholders who will be implementing the policy

The Public Health Strategy Team within the Department of Health will hold responsibility for maintaining an up to date stakeholder list and disseminating updated information to them for consideration..

- Arrangements for improving the **evidence base**.

The Department of Health will continue to work with stakeholders to improve the evidence base. The Committee on Medical Aspects of Radiation in the Environment (COMARE) have made recommendations in their report *The health effects and risks arising from exposure to ultraviolet radiation from artificial tanning devices* which will be given careful consideration by the Department of Health. These are:

"The complete risks associated with the use of sunbeds have not been fully established due to the long latency period of skin cancers and the relatively recent widespread usage of sunbeds recommend that further research is required into sunbed usage and the risk and aetiology of malignant melanomas and non-melanoma skin cancers (NMSCs). This research should include detailed investigations into skin damage from melanomas and NMSCs, with particular

reference to ageing.

Additional research is also recommended into the potential and reported ocular damage resulting from the use of sunbeds without adequate eye protection. We recommend that population-based research should be undertaken to correlate skin damage and sunbed use (i.e. number of sessions, duration and strength of machine) and control for holiday exposure. This should investigate socioeconomic factors, access to sunbeds and age of use, where possible. There is also a requirement for research to establish why some fair-skinned people find tanning desirable and to determine how behaviour may be changed. The recent tanning phenomenon could be correctable with a different approach to body image; however, background knowledge of the psychology for tanning needs to be determined.”

Secondary References:

Autier P and Boyle P (2008). Artificial ultraviolet sources and skin cancers: rationale for restricting access to sunbed use before 18 years of age. *Natl Clin Pract Oncol* **5**, 178–179.

Cancer Research UK (2008b). SunSmart campaign.
<http://info.cancerresearchuk.org/healthyliving/sunsmart/> (accessed May 2009).

Cancer Research UK (2008d). Using sunbeds under 35 could prove fatal. Cancer Research UK press statement.
<http://info.cancerresearchuk.org/news/archive/pressreleases/2008/april/422513> (accessed May 2009).

Hamlet N and Kennedy K (2004). Reconnaissance study of sunbed use by primary school children in Lanarkshire. *J Public Health (Oxf)* **26**, 31–33.

Lazovich D and Forster J (2005). Indoor tanning by adolescents: prevalence, practices and policies. *Eur J Cancer* **41**, 20–27.

Mackay H, Lowe D, Edwards D, and Rogers S N (2007). A survey of 14 to 16 year olds as to their attitude toward and use of sunbeds. *Health Education Journal*, **66**, 141–152.

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

Action Plan

	Actions	Target Date
Monitoring, evaluating and reviewing – including publishing results	Department of Health and Health Protection Agency will monitor data on cases of skin cancer over a number of years to see if there is evidence of a reduction in skin cancer cases	Ongoing
	Monitor impact of ban on different groups such as the sunbed industry and sunbed users	As soon as possible after the proposed legislation comes into force
	The Department of Health will monitor and evaluate the use of sunbeds generally so that the Secretary of State can determine whether it is necessary to exercise any regulation making powers	Ongoing from when the proposed legislation comes into force
Involvement and consultation	Mandatory consultation with stakeholders if the Secretary of State wishes to exercise regulation making power in respect of a ban on unstaffed or unsupervised commercial premises	As soon as possible after Secretary of State makes decision to consider exercising regulation-making power
	Possible consultations, either formal or informal, with stakeholders before other regulation-making powers are exercised	As and when deemed necessary
Data Collection and Evidence	The Department of Health will collect and assess both primary evidence commissioned by or on behalf of the Department and will also collect and assess evidence from independent sources	ongoing

Technical Appendix

1. This technical appendix aims to provide information regarding the calculation of the benefits of this policy and the assumptions behind them.
2. As mentioned in the main body of this Impact Assessment the benefits of restricting under 18 year olds from using sunbeds are derived from saved costs to the NHS and life years saved from preventing skin cancer deaths.
3. Prior to monetising any costs we first need to isolate the percentage of sunbed users who are under 18. As no specific survey reference is available for this the populations of under 18 and over 18 year olds from ONS mid-2007 population estimates¹ are applied to data on levels of usage for these groups. The report by COMARE² states that around a quarter of adults in the UK have used a sunbed, as have around 6% of young people aged 11-17 years old.
4. We assume that these proportions for the UK as a whole can be applied to just England and Wales. This gives an estimate for the proportion of all sunbed users who are under 18 of 2.6%.

NHS Costs saved

5. Treatment of skin cancers has a cost to the NHS. A recent paper by Morris et al³ provides estimates for the cost of treatment of Malignant Melanoma and other skin neoplasms for 2002 prices. These are uplifted using the HCHS price index from the 2008 Unit Costs publication⁴ to give estimates as follows:
 - a. Cost to NHS of Malignant Melanoma – **£3,664**
 - b. Cost to NHS of other skin neoplasms – **£1,666**
6. These costs are then weighted to account for the case mix of Malignant Melanoma and other skin cancers using data from the National Clinical and Health Outcomes Database (NCHOD⁵) to give an average cost of skin cancer to the NHS of £1,892.
7. The report by COMARE estimates that “a mathematical model estimates that sunbed use could account for approximately 370 new cases of melanoma”. Scaling this figure to England and Wales only and applying the proportion of all sunbed users who are under 18 of 2.6% gives an estimate of the number of Under 18 cases of skin cancer in later life saved as a result of the restrictions of 9 per annum.
8. This figure is then monetised using the average cost of skin cancer providing an estimate of the total NHS savings as a result of the restriction of **£16,189**.

Monetised life years saved

9. Skin cancers can also result in death to those who contract them. Restricting the use of sunbeds by under 18 year olds is estimated to have an impact on the number of skin cancer related deaths. These life years saved can then be monetised.
10. The calculations below assume that the current average age of a skin cancer death holds for those cases that are as a result of sunbed use. That is, skin cancers contracted as a result of sunbed use do not have a lower average age of death than skin cancers from other sources. This limiting assumption is applied in the absence of information about how the relative risk of contracting skin cancer changes as the use of a sunbed by an under 18 year old varies.

¹ ONS mid-2007 estimates. See <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15106>

² COMARE report 13th Report “The health effects and risks arising from exposure to ultraviolet radiation from artificial tanning devices”, page 36.

³ Morris S., Cox B., Bosquanet N, 2009; 'Cost of skin Cancer in England', European Journal of Health Economics, Issue 10 Vol. 3

⁴ Unit Costs 2008, PSSRU. See <http://www.pssru.ac.uk/uc/uc2008contents.htm>

⁵ NCHOD – See <http://www.nchod.nhs.uk>

11. To monetise life years saved as a result of restricting under 18s from using sunbeds the average ages of skin cancer deaths are calculated using data from NCHOD. The QALY loss from these average ages is calculated using 2005-2007 life tables from ONS and is applied to the Department of Health's value of a QALY of £50,000.
12. The COMARE report states that around 100 deaths each year in the UK are accounted for by sunbed use. Scaling this number to England and applying the proportion of all sunbed users who are under 18 of 2.6% gives an estimate of the number of skin cancer deaths saved per annum as a result of the restrictions of 2.31.
13. This, accounting for the differences in male and female QALY life expectancy, is then monetised at **£1.30 million** per annum in life years saved.

Loss of Consumer Surplus

14. As mentioned in the main body of this Impact Assessment the prohibition of sunbed use for under 18 year olds would result in a loss of consumer surplus to those in the group that use sunbeds. Consumer surplus is an estimate of the total benefit accrued to consumers over and above their total expenditure on the good in question. The following calculations aim to provide an estimate of under 18 year olds' consumer surplus from sunbed use as a precautionary mention with regards to the rather low net benefits presented in this Impact Assessment.
15. The following inputs and assumptions are used:
 - a. We use figures for levels of sunbed usage from the BMRB Omnibus study which states that 6.0% of 11-17 year olds report that they have used a sunbed. Of these respondents, 16.8% use a sunbed at least once a week and a further 9.7% use a sunbed at least once a month.
 - b. For expenditure on sunbed sessions data is used from Cancer Research UK. They present a range of sunbed prices per minute of use. The range offers no link to actual usage. Thus an estimate was taken to assume that those using sunbeds once a week and once a month have sessions in those durations with an average session length of 5 minutes and a price per minute of 55 pence. This is considered to be conservative given that some users will have shorter sessions but others will have more sessions per week or per month.
 - c. In the absence of any information regarding the price elasticity of demand for under 18 sunbed use a unit price elasticity of demand is used. A comparable elasticity that is derived from the review of pricing and promotion of alcohol conducted by the University of Sheffield⁶ is -0.53. A unit price elasticity is used for sunbeds as it is believed that the demand of sunbeds is more responsive to a change in price than alcoholic drinks. This means that for under 18 year olds a 1% increase in price will bring about a 1% fall in consumption. This figure is quite low and the calculated value for consumer surplus would fall if lower elasticities were used.
16. Using the information above an estimate of the consumer surplus for under 18 year olds in sunbed consumption of **£3.65 million** per annum is obtained. If sunbed use was prohibited then this value would be lost each year. It is noted that this figure is greater than the expected annual monetised health benefits of the proposed regulations.
17. It is conceded however that consumers under 18 are not deemed adequate judges of their own welfare and so we would not attach weight to their consumers' surplus in these situations. Were this assumption changed then the calculations above, with more accurate data, should be taken into account in assessing the impact of the proposed regulations.

⁶ The full report can be found at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_091364.pdf