

**TRENDS IN KNOWLEDGE, ATTITUDE AND  
BEHAVIOR ABOUT SUN-PROTECTION  
IN 15-75 AGED FRENCH PEOPLE:  
BAROMÈTRE CANCER, 2005-2010-2015  
*SUN-HEALTH KNOWLEDGES***

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## CONTEXT:

Ultraviolet radiations (UV) diseases increase in France

Incidence of skin melanoma:  $\approx 11,200$  new cases in 2010 →  $\approx 15,500$  in 2018 [Defossez G et al, 2019]

The excessive exposure to UV (both natural and artificial) is the most preventable risk factor of skin cancers

In 2015, 83% of skin melanoma were attributable to solar UV in France [Arnold M et al, 2018]

**AIM OF THIS STUDY:** Describe the cancer-related knowledges, attitudes, beliefs and practices of French people with the 'Baromètre Cancer' study (including questions related to UV)

↪ For this presentation, **only the sun-health knowledges**

## MATERIALS and METHODS

### The 'Baromètre Cancer' study



#### **SAMPLING DESIGN AND DATA COLLECTION:**

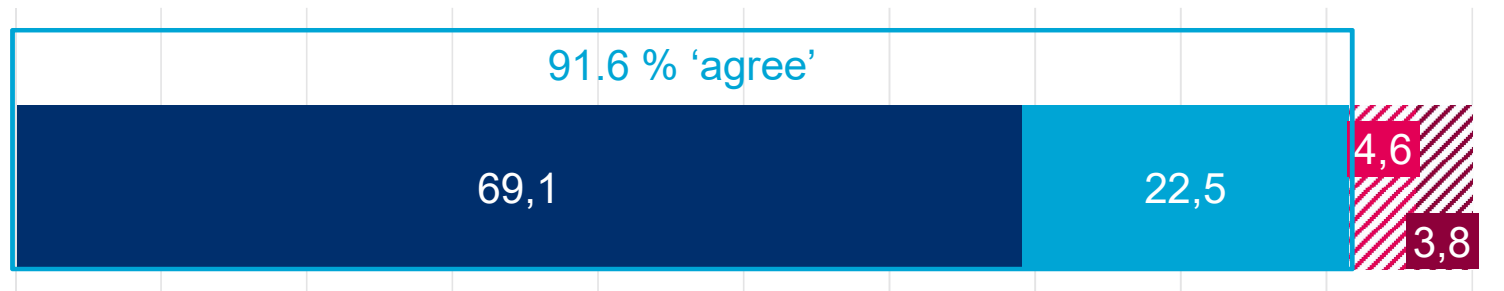
- A two-stage random sampling survey (household then individual –French speaking person aged 15-85 years)
- Interviews conducted by telephone from May to October 2015
- 30.6% participation rate produced a sample of 3.931 persons aged > 75 years (with full interview)
- Exclusion: people with cancer history (n=3.613)

#### **STATISTICAL ANALYSIS:** conducted with stata13

- To ensure the national representativeness of the sample, data were weighted by age, sex and educational level, geographic area, and size of town of residence , with a calibration procedure
- Uni~ and bi~variate analyses
- Confidence intervals and comparaison test (Chi-square): statistic used in surveys by random selection
- Logistical regression: data were weighted by age, sex and educational level

# RESULTS – SUN HEALTH KNOWLEDGES OPINIONS, IN 2015

- ‘Sun causes the skin to age prematurely’:



... since 2005 ?



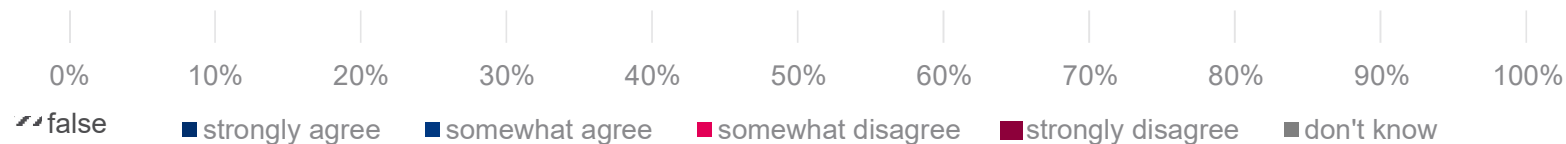
ORa=0.5\*\*\* [0.4-0.7]

2010: 92.5 % ORa=0.6\*\*\* [0.5-0.8]

2005: 94.6 % (reference)

ORa, ajustement on gender, age and education level

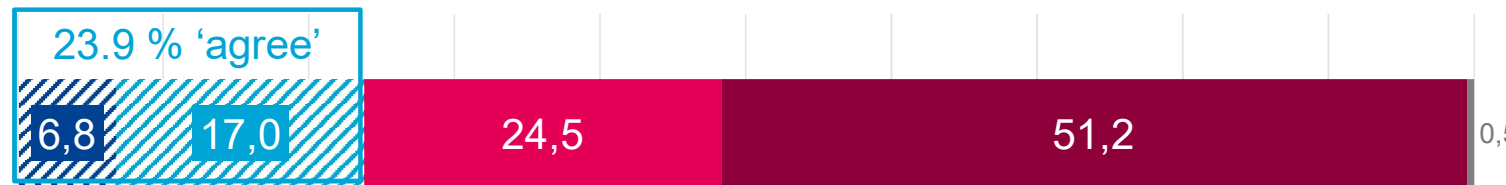
\*\*\* : p<0.001 ; \*\* : p<0.01 ; \* p<0.05



# RESULTS – SUN HEALTH KNOWLEDGES OPINIONS, IN 2015

- ‘Sunbed before the holidays help to protect it from sunburn’:

... since 2005 ?



↓  
2015: 23.9% ORa=0.9\* [0.8-1.0]  
2010: 24.1% ORa=0.9\* [0.8-1.0]  
2005: 26.9% (reference)

- ‘Sunburn acclimate the skin’:



↓  
2015: 20.9% ORa=0.7\*\*\* [0.6-0.9]  
2010: 21.0% ORa=0.7\*\*\* [0.6-0.8]  
2005: 28.0% (reference)

- ‘Put sunscreen only once allows to expose himself all day long’:



↔  
2015: 9.4% ORa=1.2 [0.9-1.5]  
2010: 8.4% (reference)

ORa, ajustement on gender, age and education level

\*\*\* : p<0.001 ; \*\* : p<0.01 ; \* p<0.05

## DISCUSSION

### THE STUDY:

- Low participation rate (30.6 %)
- Non-participants, probably less educated

⇒ overestimation?

Weighting data limited partially the impact

- No information on exposure practices (duration, motivation for tanned skin ...)

### THE SUN HEALTH KNOWLEDGES:

- Measured by self-reported
- ⇒ overestimation (?) owing to social desirability bias

- Misconceptions persist or increase: standard prevention campaigns have so far failed

## CONCLUSION



### STRATEGIES TO PREVENT UV DISEASES:

*Change the context or environment to support healthy choices than strategies focused on individual behavior*

- Increase opportunities for sun protection in outdoor settings

⇒ increase shade outdoor

- Provide information to make informed, healthy choices

⇒ promote UV index, fight against misconceptions, effective messages and interventions for specific audiences, truth about suntan (**Tanned skin is not healthy skin!**)

- Policies that promote healthy behaviors

⇒ incorporate sun safety in school, into workplace and safety training

- Strengthen research, surveillance, monitoring, and evaluation related to UV diseases prevention

Source: The Surgeon General's Call to Action to Prevent Skin Cancer, 2014  
NICE Guideline NG34, 2016

## THANK YOU FOR YOUR ATTENTION

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**Source:** Ménard C. Thuret A. Baromètre cancer 2015. [Ultraviolets, naturels ou artificiels: [Connaissances, croyances et pratiques de la population en 2015.](#)] Saint-Maurice : Santé publique France. 2018. 46 p  
<http://inpes.santepubliquefrance.fr/CFESBases/catalogue/detaildoc.asp?numfiche=1857>

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