

# PREVALENCE OF SCARS: RESULTS OF THE FIRST INTERNATIONAL STUDY

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## INTRODUCTION

Scars are visible marks due to skin injury, burns or inflammatory dermatosis, such as acne or shingles. Surgical procedures systematically induce a scar, and it is often a criterion of success or failure for the patient and the surgeon. Some scars can however be embarrassing depending on their location, their size and their aspect. Some induce regular itching or a feeling of tightness or pain. In fact, scarring depends on multiple factors: age, topographic location, genetics and phototype. Therefore, it was very interesting to understand scarring around the world better. To our knowledge, an international evaluation of the prevalence of scars had never previously been carried-out.

## MATERIAL & METHODS

Participants were selected using a stratified random sampling method from a database including several million Internet users who agreed to participate in various panel surveys. We enquired about socio-demographics, the presence and origin of scars, unpleasant sensations generated (pain) using an online survey performed in April and May 2020. In order to simplify the collection of data, we focused the analysis on the most recent scar only.

## RESULTS

A total of 11,100 individuals were interviewed in 5 countries: China (3050), Brazil (2000), the United States (2050), Russia (2000) and France (2000). Nearly one in two (48.5%) individuals self-reported having a scar on their body. China (37%), Brazil (46%), the United States (53%), Russia (61%) and France (51%). For almost one subject in five [22%], the scar was less than 1 year old. The average number of scars reported did not differ according to gender [4.1±4.9].

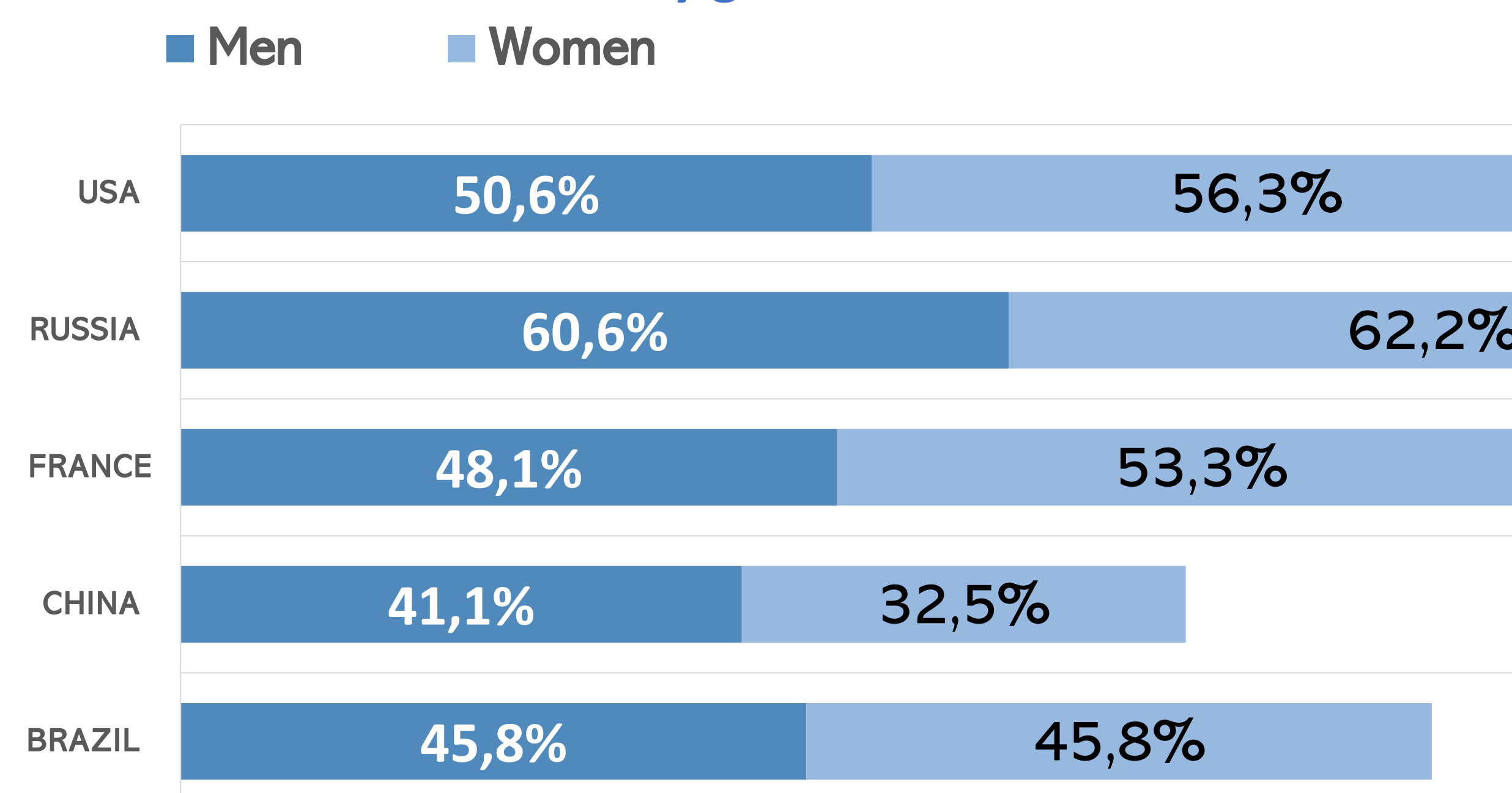
The location most often reported by women was the stomach [n=1148; 20.4%] followed by the face [n=895; 15.9%]; among men, the most frequent location was the face [n=1025; 18.7%] followed by the stomach [n=724; 13.2%]. The location of scars on the hand(s) differed according to gender: 13.3% of men reported a scar on the hand (10.1% on 1 hand and 3.2% on both hands) but only 8.4% of women reported a scar on their hands [6.5% and 1.9%, p-value <0.00001].

In more than half of the cases, the origin of the most recent scar was an accident or illness that left a scar [women= 50.8% vs. men= 60.5%, p-value <0.0001]. 35% of women (and 28% of men) indicated that general or orthopedic surgery was the cause of the scar [p-value <0.0001]. Cosmetic or reconstructive surgery was reported only by 4.6% of women and 4.7% of men [NS]. 12.3% of men and 10.7% of women reported feeling pain [p-value <0.03]. For 11% of people who reported scars, the use of cosmetics could have a positive impact, while 14.7% believed that a balanced diet could have a similar impact. 18% observed a negative impact due to sun exposure and 14% due to stress.

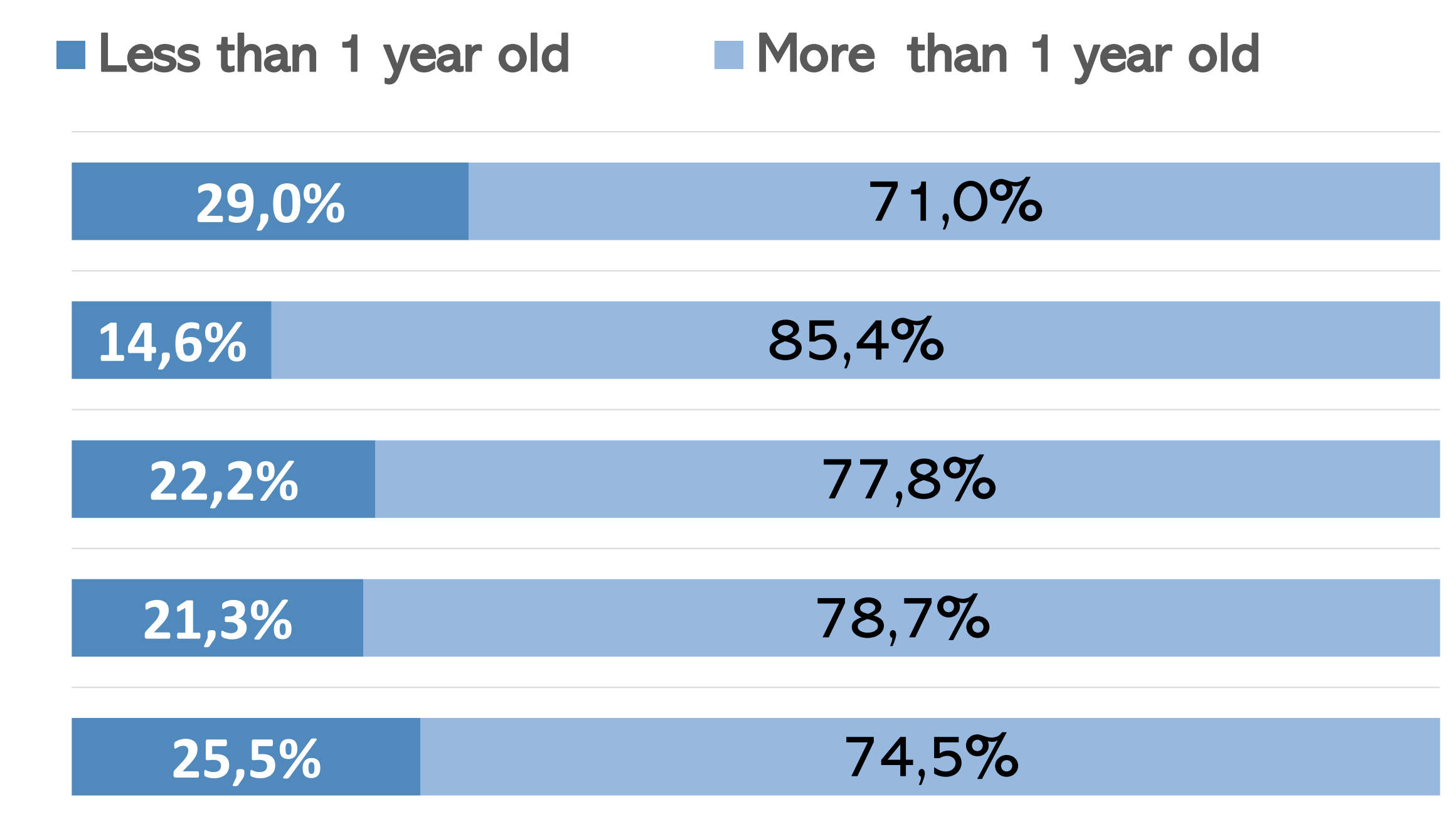
## DISCUSSION & CONCLUSION

This is the first international epidemiological study on the prevalence, origin, location and side effects of scars. More than 11,000 individuals in 5 countries participated. We present herewith the very first results and note that, whatever the country, the presence of a scar is much more frequent than previously thought. In total, one in two people report a scar, with the two most frequent locations being the face and the stomach. Scars are mainly due to illnesses, accidents, and general or orthopaedic surgery. As scars may affect quality of life, an early, personalized supportive skin care regime may help to manage scars and their impact better. In case of skin excision, dermatologists should be cautious with the scar management and advice their patients.

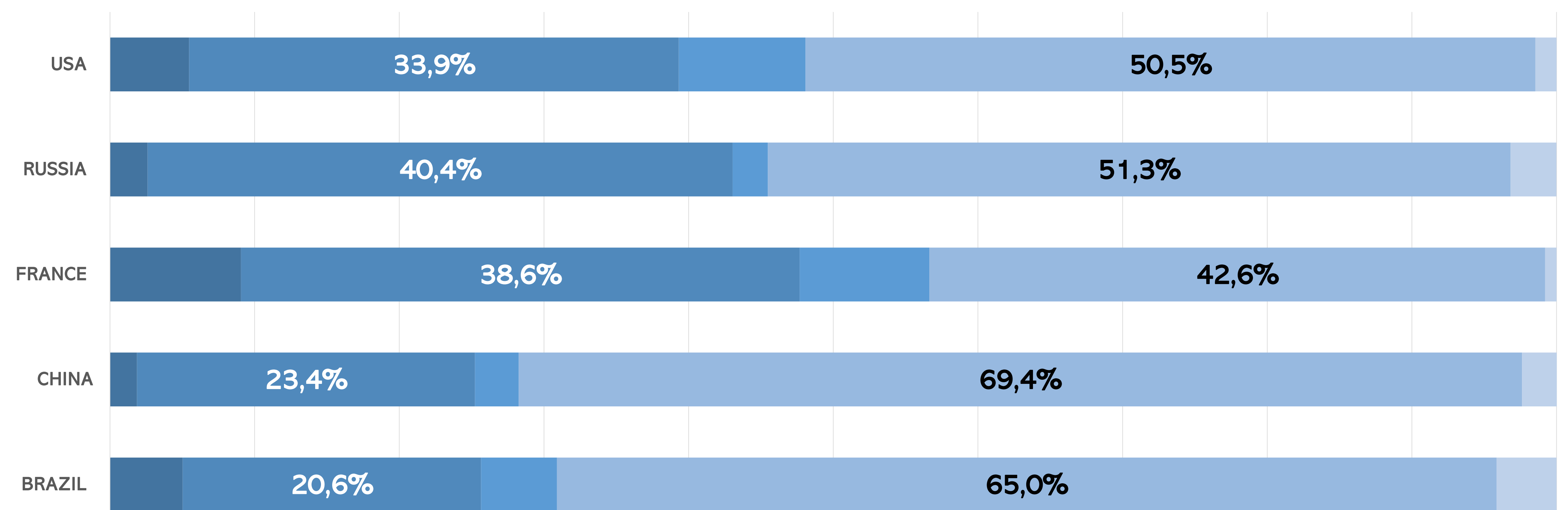
Prevalence of scars by gender



Age of the most recent scar



Origin of the most recent scar



	Brazil	China	France	Russia	USA
Restorative or cosmetic surgery	5,0%	1,9%	9,1%	2,6%	5,5%
General or orthopaedic surgery	20,6%	23,4%	38,6%	40,4%	33,9%
Skin excision	5,2%	3,0%	9,0%	2,4%	8,8%
Accident or illness	65,0%	69,4%	42,6%	51,3%	50,5%
Cosmeic procedure	4,2%	2,4%	0,8%	3,2%	1,5%