

ORIGINAL ARTICLE

Prevalence of radiotherapy, chemotherapy and access to supportive care in cancer in Brazil, China, France, Russia and the USA

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Abstract

Objectives: The objective of this study is to assess the prevalence of treatment with radiotherapy and/or chemotherapy in the general adult population of five countries (Brazil, China, France, Russia and the USA) and to evaluate the use of different Supportive Care in Cancer (SCC) services.

Methods: A total of 11,100 individuals representing the general population over 18 years of age were recruited from the five countries via a rigorous quota sampling method.

Results: There are between 4.1% and 8.78% of respondents reported having undergone medical cancer treatment. Among these subpopulations, the use of at least one SCC was reported by 63% to 86% of respondents. The most commonly used SCC was psychological counselling in France, dietary counselling in Brazil and China, participating in a focus group in the USA and using alternative medicine in Russia. Alternative medicines were chosen by 50% to 61% of patients in every country.

Conclusion: This study provides information on the prevalence of patients treated by chemotherapy and/or radiotherapy in representative populations from five countries. Among them, SCC was widely used. However, these uses varied both in proportion and choice, given the cultural differences in patients' and families' health beliefs and values, differences among organisations, in available resources and in ethics and policies among countries.

KEYWORDS

chemotherapy, comparison, prevalence, radiotherapy, supportive care in cancer

1 | INTRODUCTION

Physical and psychological symptoms around cancer (e.g., fatigue, pain, nausea, anorexia, anxiety and depression) are frequent. Their ease is the aim of supportive care in cancer (SCC), as mentioned by Olver (2018) as early as his preface of the Multinational Association

of Supportive Care in Cancer textbook of cancer supportive care and survivorship. However, there is no clear definition of SCC. The Multinational Association of Supportive Care in Cancer defines SCC as the management of the symptoms of cancer and side effects of treatment across the entire continuum of cancer care, including prevention, screening, diagnosis, treatment, post-treatment rehabilitation/

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survivorship and end-of-life care (Olver, 2018). Their scope and benefits are very wide. The early integration of some SCC has been shown to increase overall survival and/or quality of life (Greer et al., 2012; Pirl et al., 2012; Temel et al., 2010). However, their multiplicity and lack of demonstrated effectiveness (Carey et al., 2012) make it difficult to recognise all of them as effective treatments, to compare their efficacy one to another and from one country to another, and make official recommendations for their dissemination.

On the other hand, SCC is not proposed to every patient with a cancer creating unmet needs which perception is at its peak during the course of treatment (Harrison et al., 2009). The inability to meet patients' needs for support (of any kind) can contribute to the development of psychological distress, ineffective management and reduced quality of life for cancer patients (Carey et al., 2012; Hack et al., 2010; Raupach & Hiller, 2002). Failure to provide appropriate supportive care during treatment has been shown to impact patient adherence to the treatment plan and thus jeopardise the achievement of optimal outcomes (Cardoso et al., 2013). Early identification of unmet needs may thus limit the problems patients face (Nagraj et al., 2014; Ninot et al., 2018).

To identify unmet needs, we need to know what is valued in different countries. Each patient chooses different SCC services based on his or her own determinants of health and based on what is available when needed. This choice is therefore highly variable not only across individuals but also across cultures. The main objective of this poll was to assess the use of different SCC among individuals treated with chemotherapy (CT) and/or radiotherapy (RT) in the general adult population in five countries.

2 | METHOD

2.1 | Polling method

For this research, an expert group (one dermatologist, one supportive care professional, one epidemiologist and one public health physician) developed a self-report questionnaire that contained several items related to sociodemographic characteristics, such as sex, age, occupation, marital status, area of residence and lifetime management with CT or RT. The questionnaire included simple questions that were easy to understand and avoided complicated technical or medical terms. The questionnaire is presented in Appendix A.

A polling institute (HC Conseil Paris, France) conducted the current survey between 1 February and 30 June 2020.

A sample of the general population over 18 years of age, considered the adult population, was recruited from five countries (France, China, Russia, USA and Brazil). There was a willingness to choose an Asian, a North American, a South American, an Eastern European and a Western European country. More countries could have been included, but the budgets to do so were not available.

The quota method is a sampling method which consists of ensuring the representativeness of a sample by assigning it a structure

similar to that of the base population, according to the data published by the different National Statistical Institutes of each country. The method is based on the assumption that by controlling the structure of the sample on criteria known to the population under study, the results obtained on this sample can be extended to the entire population. For representative quotas, the usual used criteria are sociodemographic data: gender, age and region. Other usual control variables selected to ensure the quality of the natural distribution on characteristics that may be related to the subject under study are the socio-professional category, the income level and the category of agglomeration. Using quota method allowed us to reduce to a minimum of biases linked to volunteering or Internet use, particularly with regard to age, region of residence or socio-cultural level. This approach is widely used in epidemiology (Chan et al., 2020; Hasin et al., 2018; Higgins et al., 2016; Misery et al., 2019, 2020).

The four quotas of this study were the sex ratio, age, economic level and geographical location.

2.2 | Patients selection

The data were collected via the internet by randomly selecting 11,100 individual internet users over 18 years of age who agreed to participate in the survey. Online data collection gives access to a large, diverse population in every country. Subjects were recruited by email based on address files taken from international mega-databases. These databases come from different recruitment sources, are continually updated and list volunteers who have agreed in principle to answer questionnaires online, in response to a specific invitation. Using this method, (i) acceptance rates are higher than with telephone, face-to-face or postal techniques, and (ii) the main bias associated with the acceptance rate is cancelled out: Higher response rates are often seen in people living in urban areas or those who have higher levels of income or education.

Each participant was contacted by e-mail using an algorithm constructed for this purpose, and if contact was unsuccessful, another participant with the same characteristics (sex, age, socioprofessional status and regional distribution) was randomly selected.

Each participant agreed to complete a numerical questionnaire with a series of simple questions, which took approximately 5 min. Missing data were not permitted, so respondents were required to provide an answer to each question.

2.3 | Ethics

Since this study used completely anonymous data (no data identifying the respondents were collected) and did not involve direct contact between the authors and respondents, approval from an institutional review committee was not required. However, all respondents agreed in principle to answer the questionnaire after being informed of the strict anonymity of the project and their right to discontinue the

questionnaire at any stage of the project. In accordance with the regulations in France and in compliance with the General Data Protection Regulation, every person was informed that his or her rights were sought: He or she may not answer the questionnaire, the questionnaire could be stopped without having to give explanations, its anonymity was respected and the database was strictly anonymous.

A declarative methodology was used; that is, there was no possible control of the patients' answers veracity, especially by a physician.

2.4 | Statistical analysis

In this descriptive study, participants from one country who reported that they were treated with CT and/or RT were compared to

participants from another country who reported that they were treated with CT and/or RT.

Quantitative variables were expressed as the means and standard deviations. Qualitative variables were expressed as frequencies and percentages. Comparisons between groups (male vs. female) were made using the Chi-squared test for categorical variables.

The significance level was set at 5%. Statistical analyses were performed using version 3.6.1 of R software.

3 | RESULTS

A total of 11,100 individuals answered to the poll in five countries: China (3050), Brazil (2000), the United States of America (USA)

TABLE 1 Characteristics of the five countries and demographics of their populations

	Brazil		China		France		Russia		USA	
Number of patients (%)	2,000 (18%)		3,050 (27.4%)		2,000 (18%)		2,000 (18%)		2,050 (18.6%)	
Health expenditures as a % of Gross domestic products in 2014 (source OECD)										
Global expenditures	8.3%		5.5%		11.5%		7.1%		17.1%	
Public expenditures	3.8%		3.1%		9%		3.7%		8.2%	
Private expenditures	4.5%		2.4%		2.5%		3.1%		8.9%	
Demographics	N	%	N	%	N	%	N	%	N	%
Sex										
Males	980	49	1,570	51.48	980	49	932	46.6	1,024	49.95
Females	1,020	51	1,480	48.52	1,020	51	1,068	53.4	1,026	50.05
Age (years)										
18–24	318	15.9	349	11.44	240	12	180	9	280	13.66
25–34	458	22.9	812	26.62	340	17	424	21.2	396	19.32
35–44	434	21.7	741	24.3	360	18	416	20.8	338	16.49
45–54	352	17.6	646	21.18	397	19.85	344	17.2	354	17.27
55–64	274	13.7	352	11.54	363	18.15	390	19.5	402	19.61
65–74	164	8.2	150	4.92	300	15	246	12.3	280	13.66
Mean ± SD	39.87 ± 14.29		41.91 ± 11.79		45.74 ± 15.95		36.31 ± 12.09		37.16 ± 12.13	
Living place										
Big city	1,340	67	2,240	73.44	504	25.20	1,628	81.4	528	25.76
Medium city	518	25.9	641	21.02	640	32	247	12.35	1,065	51.95
Small city	142	7.1	169	5.54	856	42.8	125	6.25	457	22.29
Socio-professional category										
Low	985	49.25	1,388	45.51	1,092	54.6	888	44.4	931	45.41
High	981	49.05	1,606	52.66	793	39.65	1,037	51.85	1,024	49.95
Don't want to answer	34	1.7	56	1.84	115	5.75	74	3.75	95	4.63

Note: Living places: This characterises the place where the person lives. Population density is an index showing the relationship between the population and the area in which it lives. The criteria for allocating population to particular areas in the rural or urban sector differ in different countries. Other areas are called urban areas. Some definitions of rural and urban population have led to the distinction of an intermediate category called the semi-urban population. A visual scale helps respondents to position according to the density of the habitat in which they live. Occupations and socio-professional categories: statistical nomenclature used to classify occupations: (1) active: high and intermediate socioprofessional farmer craftsman/ merchant/manager of a business with fewer than 10 employees, manager of a business of 10 employees or more senior executive, liberal profession (physician, dentist, lawyer, etc.), senior official executive, teacher, intermediate profession in the private or public sector; (2) low socioprofessional Employee (office, shops, services, health, public sector, etc.) blue-collar worker; (3) inactive: retired student other (pension, househusband or housewife).

Source: Institut national de la statistique et des études économiques (Insee).

(2050), Russia (2000) and France (2000). Table 1 presents the characteristics of the five populations. By definition, the architecture of the respective populations of the five countries was respected, and the differences observed between countries reflected the reality of the demography.

Figure 1 presents the flowchart of the study.

Participants were asked about their status in relation to treatment with CT or RT. Individuals could answer either yes, no or that they did not know their status. Almost all respondents (at least 98.44%) knew whether they had been treated with CT or RT (Figure 1). Reported coverage by 'CT', 'RT' and 'RT and/or CT' in each of the five countries is detailed in Figure 1; the 'CT and/or RT' subgroup included patients with CT, RT or radiochemotherapy and warranted further analysis (shaded in Figure 1). Patients who were not or did not know whether they had previously been treated by CT and/or RT were excluded. As a number of subjects reported being treated with both CT and RT, they were counted only once in the assessment of prevalence. No significant difference of treatment types in distribution between men and women was observed in France, China and Russia ($p > 0.05$). There were significantly more men treated than women ($p < 0.01$) in Brazil (6.73% vs. 4.12%) and the USA (10.16% vs. 7.41%).

Table 2 presents the delay since cancer treatment.

The prevalence of CT and/or RT, presented in Figure 1, in the BRICS (Brazil, Russia, India, China and South Africa) countries (Brazil, Russia and China) was comparable (nonsignificant [NS] t test), with a global 5%-rate. On the other hand, the prevalence of these treatments was significantly higher in France (6.3%) and the USA (8.8%), all pairwise comparisons t tests being $<0.05\%$ (data not shown), in line with the order of health expenditures as a percentage of the gross domestic product (Table 1).

Among this subpopulation treated by CT and/or RT, the use of at least one SCC service was indicated by 63% of French respondents,

73% of American respondents, 84% of Brazilian respondents, 64% of Russian respondents and 86% of Chinese respondents.

The use of the various SCC is presented in Table 3.

The most commonly used SCC was psychological counselling in France, dietary counselling in Brazil and China, participating in a focus group in the United States and using alternative and complementary medicine in Russia.

The different types of used complementary medicine could be gathered in two main domains: mind-body practices (yoga, gymnastic and relaxation) and use of complementary and alternative medicines (aromatherapy, phytotherapy and homeotherapy). Alternative medicines (AMs) were chosen by at least one out of two patients (cf. Table 3).

Various SCC treatments such as corrective makeup, facial care, body care and clothing advice, which are also called 'socioaesthetic' treatments in some countries, were claimed by numerous patients (Russia: 24%, China or Brazil: 60%, USA: 47% and France: 37%).

Table 4 presents patients' assessments of the SCC from which they benefited. Eighty per cent of patients confirmed that this care helped them in the management of their disease.

TABLE 2 Delay since cancer treatment

	Chemotherapy		Radiotherapy	
	N	%	N	%
Less than 1 year	93	25.8%	112	23.6%
Between 1 and 5 years	126	34.9%	198	41.8%
Between 5 and 10 years	77	21.3%	83	17.5%
Between 10 and 20 years	47	13.0%	57	12.0%
20 years or more	18	5.0%	24	5.0%

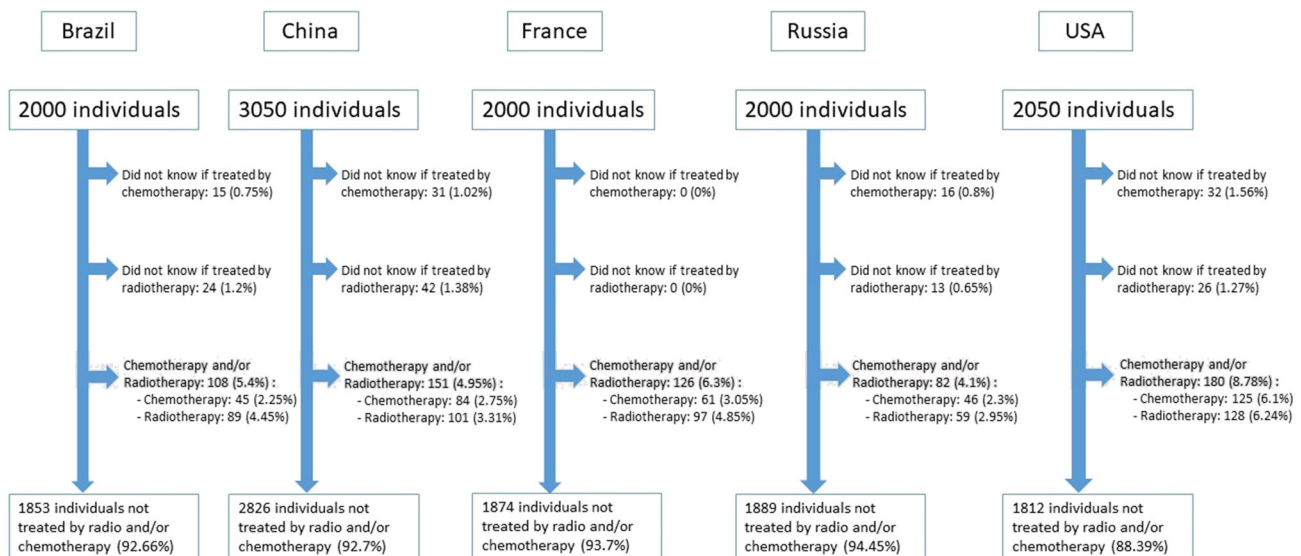


FIGURE 1 Flowchart of the study. The selected population is shaded.

TABLE 3 Use of different support care depending on the country

	Brazil (n = 108)		China (n = 151)		France (n = 126)		Russia (n = 82)		USA (n = 180)	
	n	%	n	%	n	%	n	%	n	%
Interviews with a psychologist	54	50.00	71	47.02	54	42.86	22	26.83	79	43.89
Interviews with a sexologist	21	19.44	37	24.50	27	21.43	6	7.32	56	31.11
Interviews with a dietician	62	57.41	98	64.90	44	34.92	26	31.71	69	38.33
Socio-aesthetic consultation (corrective make-up, facial care, body care, clothing advice, etc.)	34	31.48	68	45.03	29	23.02	13	15.85	63	35.00
Therapeutic education sessions	43	39.81	83	54.97	27	21.43	19	23.17	73	40.56
Patient organisation or a discussion group	37	34.26	75	49.67	31	24.60	17	20.73	89	49.44
Alternative medicines (homoeopathy, herbal medicine, hypnosis, acupuncture, magnetizer, etc.)	56	51.85	79	52.32	41	32.54	27	32.93	77	42.78
Yoga, gymnastics or relaxation sessions (pilates, sophrology, meditation ...)	46	42.59	82	54.30	40	31.75	22	26.83	78	43.33

TABLE 4 Judgements of patients of supportive care in cancer they benefited from

	Braziln = 108		Chinan = 151		Francen = 126		Russian = 82		USAn = 180	
	N	%	N	%	N	%	N	%	N	%
Declared benefits from a SCC	91	84.26	131	86.75	80	63.49	53	64.63	132	73.33
Considers SCC to be a positive aid	81	89.01	114	87.02	61	76.25	42	79.25	101	76.52
Does not consider SCC to be a positive aid	8	8.79	6	4.58	15	18.75	4	7.55	23	17.42
Declares not knowing	2	2.2	11	8.4	4	5	7	13.21	8	6.06

Abbreviations: CT, chemotherapy; RT, radiotherapy; SCC, Supportive Care in Cancer.

In all of the countries (except the USA, $p < 0.001$), the use of SCC services did not differ significantly according to the length of time in care, and considering the aid to be positive did not depend on the length of time in care.

4 | DISCUSSION

Our international survey shows that SCC is used by a large majority of patients treated for a cancer in all countries surveyed, regardless of the countries' economic levels and the proportion of the gross domestic product spent in the country on health (Table 1). Indeed, between 63% and 86% of patients treated by CT and/or RT used at least one SCC. Therefore, SCC services fulfil a need, which confirms their use and therefore their usefulness. They also offered a high level of satisfaction. Furthermore, reported cancer prevalence in the BRICS countries seemed to exceed the prevalence reported by the [International Agency of Research Against the Cancer](#), estimated between 1.3% and 1.6%. The French and US prevalence were concordant (about 5%).

Our study also shows that international variability exists regarding SCC usage rates and types of SCC chosen. These differences are confirmed by other authors (Davies & Higginson, 2005; Keefe et al., 2016), but to our knowledge, there are no international comparative studies as direct and broad as ours. In our view, the

heterogeneity in rates and choices depended on three main factors. First is the culture of the countries themselves. The approaches regarding SCC and, more generally, regarding care, palliative care and death are very different across cultures (Fielding et al., 2013; Surbone, 2008). Second, the differences in living places between the countries varied from one country to another. The majority of in the USA were located in medium-sized cities, while respondents from China, Brazil and Russia were from big cities, and those from France were from small cities. Several authors have shown the existence of intra-country disparities in care in general and therefore probably SCC on the basis of cultural and financial constraints. These disparities are often compounded by the scarcity of services, the lack of physicians sensitised to SCC, the difficulty in attracting and retaining physicians and maintaining health services on an equal footing (Douthit et al., 2015), the lack of public transport and the low availability of the internet. These reasons probably also play a role in international differences. At last, the resources allocated to providing SCC services also vary both from one country to another and within the same country. These services often require multidisciplinary collaboration and can be resource intensive when most health services around the world are underfunded. SCC services are often provided based on local experiences; thus, there is an immense amount of pressure to work with limited resources (World Health Organization, 2016). It can therefore be very difficult to implement SCC services in overburdened

health systems, and there is a risk that SCC services may be viewed by clinicians as an unwelcome or impractical additional task (Carrieri et al., 2018). Inadequate assessments of survival and quality of life prevent the reimbursement of SCC services by national social agencies and, interdependently, their generalisation across countries. Finally, for these reasons, the availability of SCC services also more often corresponds to the availability of care and does not directly correspond to the needs of patients (Carey et al., 2012).

One particular finding demonstrated by our study is the frequency AM use (>50% of patients), consistent with the literature (Jones et al., 2019; Truant et al., 2013). Nowadays, patients seek more and more a holistic, multimodal approach dealing with physical, nutritional, mental, emotional and spiritual aspects of well-being. The decision to turn towards complementary or AM is influenced by a variety of social, demographic, cultural and disease-related factors (Weeks et al., 2014). Patients may find that AM aligns with their philosophy or the belief system they hold in regard to their illness. Actively making treatment decisions by choosing AM may increase patients' sense of autonomy and self-empowerment (White et al., 2008). This decision is sometimes dangerous for many reasons. The population of patients is very vulnerable, and there is a risk of indoctrination. For instance, a bureau directly linked to the French Prime Minister's Office gives information about AM and recommendations to beware of sectarian excesses. Regular fasting can impact nutritional status. Phytotherapy or traditional Chinese medicine can also decrease the effectiveness of cancer treatments, increase their toxicity (Meijerman et al., 2006) or even increase the risk of secondary cancer like all treatments containing phytoestrogens used in oestrogen-dependent cancers. Many authors (Johnson et al., 2018a, 2018b) have shown that the use of AM might decrease the overall survival of cancerous patients. A rigorous scientific practice and a critical use of AM are necessary. This state of affairs requires special attention from physicians, and physician supervision of patients is necessary as recommended by different societies (Society for Integrative Oncology in 2009, American Chest Cancer in 2007, updated in 2013, Association Francophone des Soins Oncologiques de Support in 2012). AM is an SCC (the chapter 10 of the MASCC textbook is dedicated to AM, its kinds and its effects; Olver, 2018), but it should be recognised as potentially harmful. It is necessary to open dialogue, to advise without judging and promote a safe use of AM in line with the beliefs of patients (White et al., 2008).

Our study may suffer from limitations. First, this study included cancer survivors and the status towards cancer (cancer survivors, under treatment and palliative treatment). Patients with advanced incurable cancer may be less likely to respond to an online survey, whereas they may be more likely to require rigorous SCC. This study was run using the internet/email, which might exclude older populations or those who do not have internet access. A typical example is a large majority of participants from China coming from big city (73.44%), which is contradicted to the reality in that most of the population were in rural area or small city. Then, patients treated for cancer with only surgery were excluded. This choice is justified by the lack of confidence about patients' answers. In our study, up to 1.56%

of patients did not know if they had been treated by CT or RT. This rate is expected to dramatically increase for patients with a cancer cured by surgery alone. However, this choice excludes a large part of the population treated for a cancer. This opinion poll was conducted during the COVID-19 pandemic (first semester of 2020). Neither sampling of the populations in each country nor the results should have been influenced by the pandemic. Indeed, the opinion targeted past medical history of patients who received radiotherapy and/or chemotherapy. Finally, means allocated to providing supportive cancer care may vary across each country, and the study only reports on 5–10% of respondents from each country who have used SCC. There is variation across countries in types of supportive care, but this study had a small sample of patients and did not assess what resources or allocations are available for SCC in each country.

5 | CONCLUSION

This study, although declarative, provides information on the lifetime prevalence of CT and/or RT among representative populations from five countries. Among the populations treated for cancer, SCC services were widely used, meaning they are necessary and fill needs, but their use varied both in proportion and choice. The design of this opinion poll cannot help us concluding that SCC offer is enough regarding the need within a single country or comparing different countries.

A perspective of suggesting an international detailed and widely accepted model for implementing SCC services is very difficult, if not impossible, given the cultural differences in patients' and families' health beliefs and values, differences among organisations, differences in available resources and differences in ethics and policies among countries, especially as patients' needs change along with their health status. But the patients' needs shall be evaluated in every country to propose unarmful adapted SCC, respecting the evidence-based medicine.

CONFLICT OF INTEREST

Dr. BuiRET and Dr. C Taieb have no conflict of interest to disclose. V Delvigne, G le Dantec and P Guyonnet-Debersac work for Laboratoire La Roche Posay.

DATA AVAILABILITY STATEMENT

Data are available on demand.

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APPENDIX A

Nous vous proposons de participer à une grande enquête internationale sur la santé. Les résultats de cette étude ont pour objectifs d'apporter des informations pour mieux connaître les habitudes et besoins et trouver des solutions adaptées pour améliorer la prise en charge.

Vos réponses resteront strictement anonymes.

Par avance, nous vous remercions de votre participation.

Cette enquête étant menée sur des sujets liés à la santé, nous sommes tenus par la loi de transmettre aux entreprises concernées toute information mentionnée dans l'enquête sur les «réactions indésirables» aux médicaments, même si elles ont déjà été signalées à l'entreprise ou à votre médecin: les «effets indésirables» peuvent être des effets secondaires, une mauvaise utilisation d'un produit ou un problème dans la qualité d'un produit.

Nous pouvons signaler un « événement indésirable » sans inclure vos informations personnelles, donc toutes les informations présentes dans cette enquête resteront strictement confidentielles.

Oui, j'accepte de poursuivre le questionnaire.

Non TERMINATE.

Vous êtes:

un homme.

une femme.

Quel est votre âge? noter en clair.

(-----) ans.

Dans quelle tranche se situe le revenu annuel de votre foyer?

Inférieur à 16,000 €.

de 16,001€ à 24,000€.

de 24,001€ - 32,000€.

de 32,001€ - 48,000€.

de 48,001€ - 64,000€.

64,001€ et plus.

Ne souhaite pas répondre.

Résidez-vous?

Dans une grande ville.

En périphérie d'une grande ville ou dans une ville moyenne.

Dans une petite ville ou en milieu rural.

SCREENING.

Ces phrases sont-elles exactes concernant des événements de santé que vous avez ou que vous avez pu avoir au cours de votre vie?

Oui

Non

Je ne sais pas.

J'ai été traité.e par chimiothérapie.

J'ai été traité.e par radiothérapie.

Vous avez dit avoir été traité.e par chimiothérapie: à quand remonte votre dernière séance de chimiothérapie?

Moins d'un an.

Entre 1 et 5 ans.

Entre 5 ans et 10 ans.

Entre 10 et 20 ans.

20 ans ou plus.

Vous avez dit avoir été traité.e par radiothérapie: à quand remonte votre dernière séance de radiothérapie?

Moins d'un an.

Entre 1 et 5 ans.

Entre 5 ans et 10 ans.

Entre 10 et 20 ans.

20 ans ou plus.

Dans le cadre de votre prise en charge par chimiothérapie ou radiothérapie avez-vous été orienté vers ...?

Oui

Non

Je ne sais pas.

Des entretiens avec un psychologue.

Des entretiens avec un sexologue.

Des entretiens avec un diététicien.

Une consultation socio-esthétique (pour maquillage correcteur, soins visage, soins du corps, conseil vestimentaire, ...)

Des séances d'éducatives thérapeutiques.

Une association de patients ou un groupe de parole.

Des médecines alternatives (homéopathie, médecine par les plantes, hypnose, acupuncture, magnétiseur, etc).

Des séances de Yoga, de gymnastique ou de relaxation (Pilates, sophrologie, méditation...).

Considérez-vous que cette prise en charge vous a apporté une aide positive.

Oui

Non

Je ne sais pas.

We would like you to take part in a large, nationwide survey on health. The results from this study will be used to better understand patients habits and needs and to find appropriate solutions to improve treatment options.

Your answers will remain strictly anonymous. Thank you in advance for your participation.

Because this survey concerns health-related issues, we are bound by the law to send any information mentioned in the survey regarding "adverse effects" caused by medicines to the relevant companies, even if these events have already been reported to the company or

your doctors. These “adverse events” can include side effects, an improper use of the product, or a problem related to the quality of the product.

We can report an adverse event without including your personal information, so all the information present in this survey will remain strictly confidential.

Yes, I wish to continue the questionnaire.

No TERMINATE.

Are you:

Male.

Female

How old are you?

[---/ ---] years.

Which band does your gross annual household income fall under?

Less than \$20,000.

From \$20,000 to \$39,900.

From \$40,000 to \$62,999.

From \$63,000 to \$74,900.

From \$75,000 to \$99,999.

\$100,000 or greater.

Prefer not to answer.

Where do you mostly live?

Urban area of a big city (Urban).

Suburban area on the outskirts of big city or in a medium-sized city (Suburban).

Rural area or small town (Rural).

SCREENING

Do these statements accurately reflect the health events you are currently experiencing or have experienced in your life?

Yes

No

I don't know

I have received chemotherapy

I have received radiation therapy

You said you have received chemotherapy. When was your last treatment?

Less than one year ago

Between 1 and 5 years ago

Between 5 and 10 years ago

Between 10 and 20 years ago

20 or more years ago

You said you have received radiation therapy. When was your last treatment?

Less than one year ago

Between 1 and 5 years ago

Between 5 and 10 years ago

Between 10 and 20 years ago

20 or more years ago

In the course of your chemotherapy or radiation therapy sessions, have you been referred to ...?

Yes

No

I don't know

A psychologist

A sexologist

A dietitian

A socio-aesthetic consultation (for corrective makeup, skincare for the face and body, wardrobe advice, etc.)

Therapeutic education sessions.

A patient association or a support group.

Alternative medicines (homeopathy, herbal medicine, hypnosis, acupuncture, magnetic therapy, etc.)

Yoga, gymnastic, or relaxation sessions (pilates, sophrology, meditation, etc.)

? Did these therapies help you?

Yes

No

I don't know