

# Multi-national survey of women's knowledge and attitudes towards fertility and pregnancy

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## Introduction

Basic understanding of reproductive health is of value to women before they start a family. However, there is little published information on how knowledgeable women are regarding fertility and pregnancy and their attitudes towards these topics. This study examined women's knowledge, how they prepared for pregnancy and where they sourced their information.

## Methods

A multi-national (USA, Germany, France, Spain and UK) internet based survey of over 5000 women (minimum 1000 per country) aged 20–45 was conducted by IPSOS. Respondent results were automatically assembled into a quantum database. Results were examined in relation to the woman's reported desire to start a family, previous children, age and country.

## Results

The population surveyed is summarised in Table 1.

Table 1: Description of study population

	US	UK	France	Germany	Spain
<b>Number of respondents, n</b>	<b>1096</b>	<b>1015</b>	<b>1015</b>	<b>1051</b>	<b>1016</b>
Age 20–34, %	59	55	57	50	56
Age 35–45, %	41	45	43	50	44
<b>Occupation</b>					
Employed full-time, %	36	47	60	47	42
Employed part-time, %	18	22	19	25	17
Not employed, %	37	28	19	13	32
Student, %	10	3	2	15	9
<b>Fertility History</b>					
Has ever used ovulation tests, %	28	31	15	15	15
Currently pregnant or has been trying to conceive in the last 6 months, %	8	8	11	6	10
<b>Number of children, % per category</b>					
0	42	52	30	61	43
1	21	20	22	20	25
2	22	20	33	14	25
3	10	6	13	4	6
4+	5	2	2	1	1
<b>Proportion of respondents with at least 1 child, %</b>	<b>59</b>	<b>48</b>	<b>70</b>	<b>39</b>	<b>58</b>
<b>Ever used a contraceptive method, %</b>	<b>87</b>	<b>93</b>	<b>96</b>	<b>94</b>	<b>96</b>

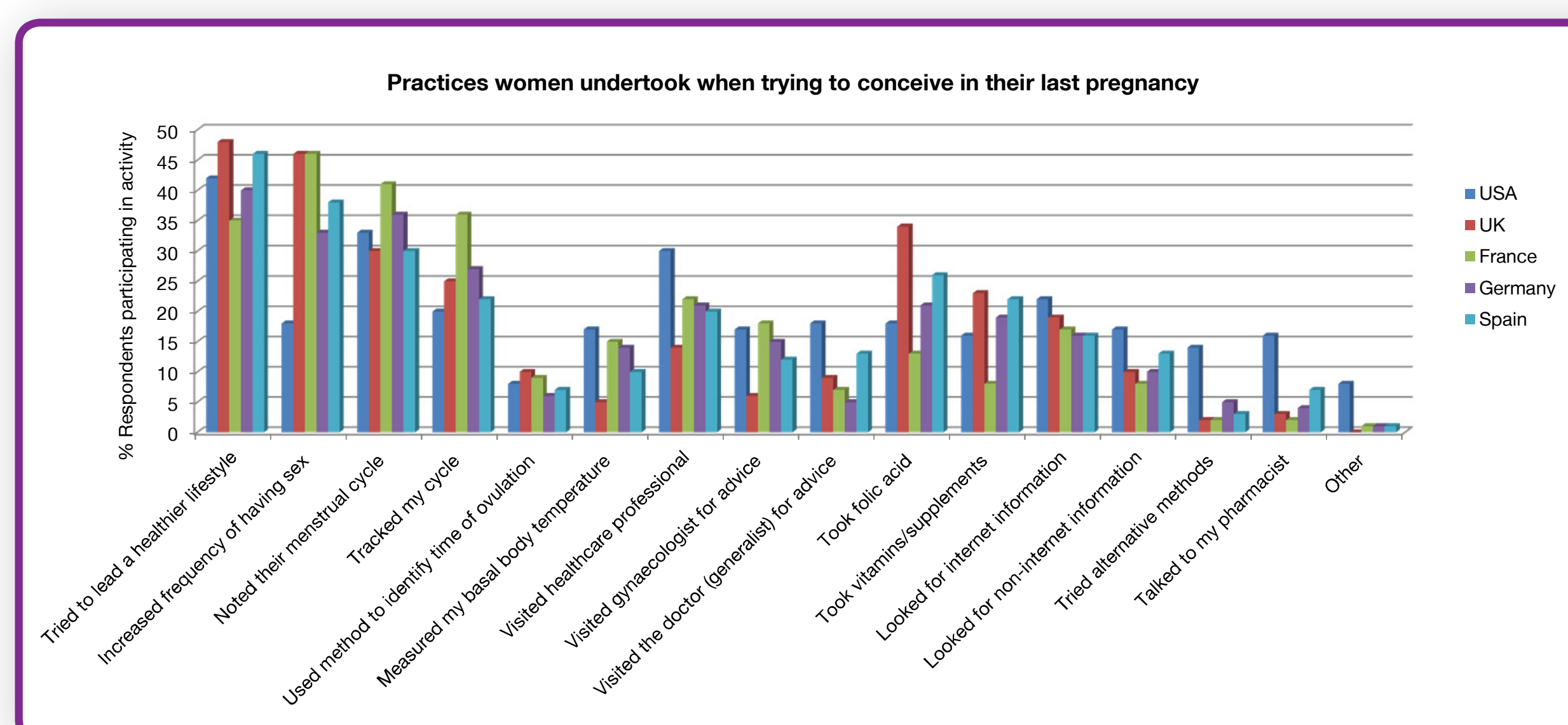
The results from asking basic fertility questions are summarised in Table 2. A surprising number of women believed that they could become pregnant on any day of their cycle (range: 30% UK to 5% France), and other knowledge regarding fertility was also inaccurate. There seems to be confusion regarding the terminology "menstrual cycle", with a proportion of women believing it to define only the menstrual bleeding part of the cycle, as revealed by the answers to the question "What is the most accurate description of a menstrual cycle".

Table 2: Summary of responses to basic fertility questions

Number of respondents, n	1096	1015	1015	1051	1016
<b>Question: When in the menstrual cycle can a woman conceive?</b>	US	UK	France	Germany	Spain
During her period / bleed, %	2	1	1	1	1
Always in the middle of her cycle, %	13	22	40	34	31
In the 2–3 weeks before her next period starts, %	30	24	35	24	29
1 week before her next period starts, %	16	10	10	16	10
At any time in her cycle, %	22	31	7	12	19
Don't know, %	16	13	7	13	10
<b>Question: What is the most accurate description of a menstrual cycle?</b>	US	UK	France	Germany	Spain
One month, %	14	14	4	7	10
28 days, %	40	40	48	36	51
First day of the bleed to the day before the next bleed starts, %	16	26	32	39	27
The day the bleed finishes to the day before the next bleed starts, %	5	6	7	10	6
The days on which there is bleeding, %	15	7	4	5	5
Don't know, %	9	7	4	3	1
<b>Question: How many days are there in the menstrual cycle when a woman is able to conceive?</b>	US	UK	France	Germany	Spain
Any day during the menstrual cycle, %	23	30	5	15	27
7–14 days during a menstrual cycle, %	21	21	35	17	22
3–6 days during a menstrual cycle, %	22	23	36	36	29
1–2 days during a menstrual cycle, %	13	10	17	19	11
Don't know, %	22	16	6	12	12

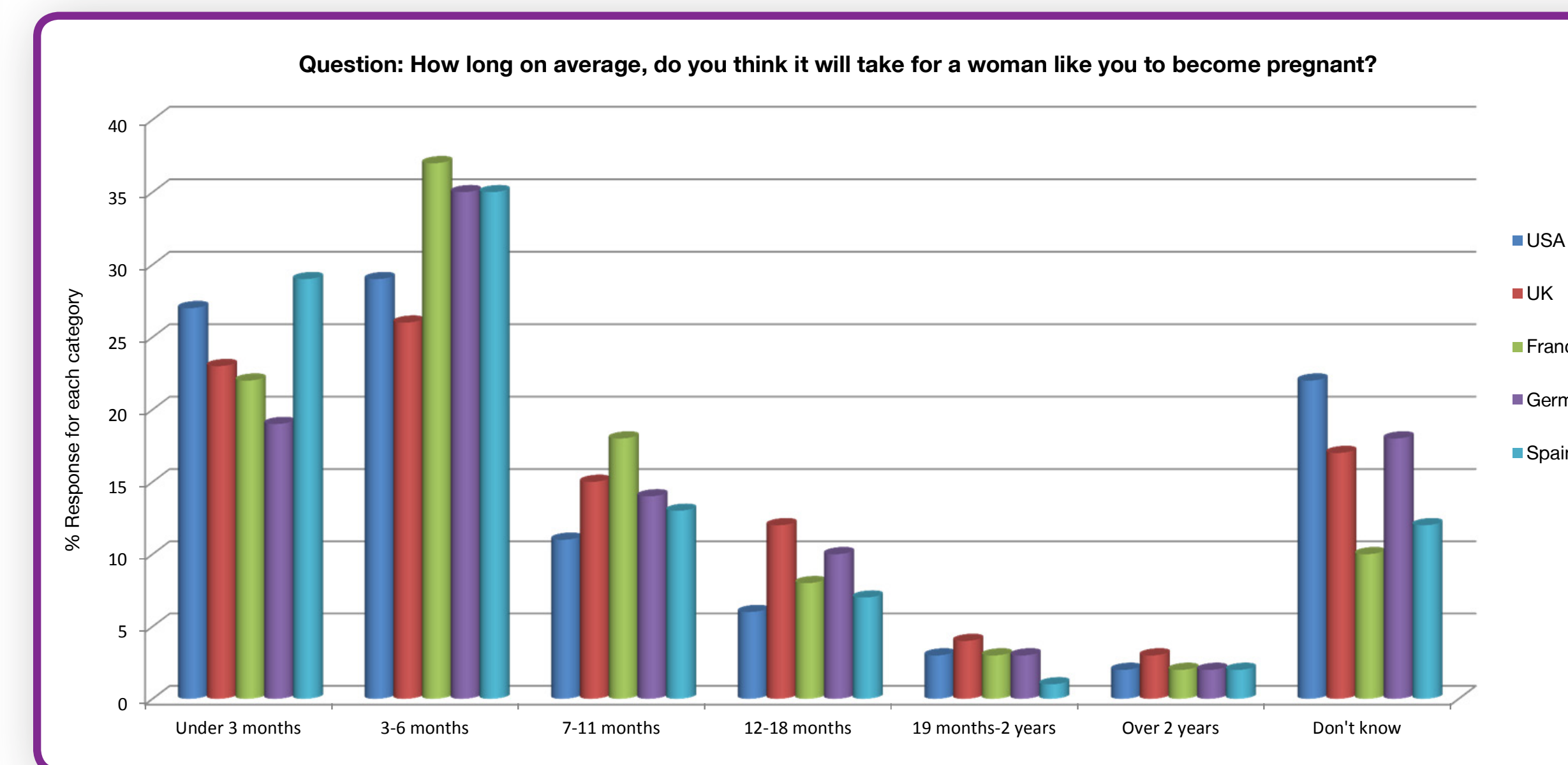
The proportion of women who had planned their last pregnancy was found to vary between countries; US 46%, UK 58%, France 77%, Germany 55%, Spain 72%. When women who planned their last pregnancy were asked what they did whilst they were trying to conceive, it was clear that women prepared for pregnancy in different ways, but worryingly not all women took folic acid (Figure 1).

Figure 1: Practices women who planned their last pregnancy undertook when they were trying to conceive. Numbers per country, USA= 217, UK=237, France=441, Germany=170, Spain=372.



Women expected pregnancy to happen quickly, "within 3–6 months" was the most common answer to the question on how long on average they thought it would take for a woman like themselves to become pregnant (Figure 2).

Figure 2: Summary of women's expectations of speed to pregnancy. Respondents were those who had replied to a previous question that they were willing to have children in the future. Numbers per country were USA=780, UK=715, France=776, Germany=751, Spain=829.



Most women wanted information prior to starting a family (range: 72% Germany to 81% Spain), with the gynaecologist (except UK where it was their general practitioner [GP]) and internet being the most common sources. Family, friends, books and pharmacists were used varying, depending on women's age and country (Figure 3). When using the internet, women used search engines and preferred independent medical websites and specialist forums rather than social media and commercial sites (Figure 4).

Figure 3: Sources of information a woman would use. Respondents were those who were willing to have children. Numbers per country were USA=780, UK=715, France=776, Germany=751, Spain=829.

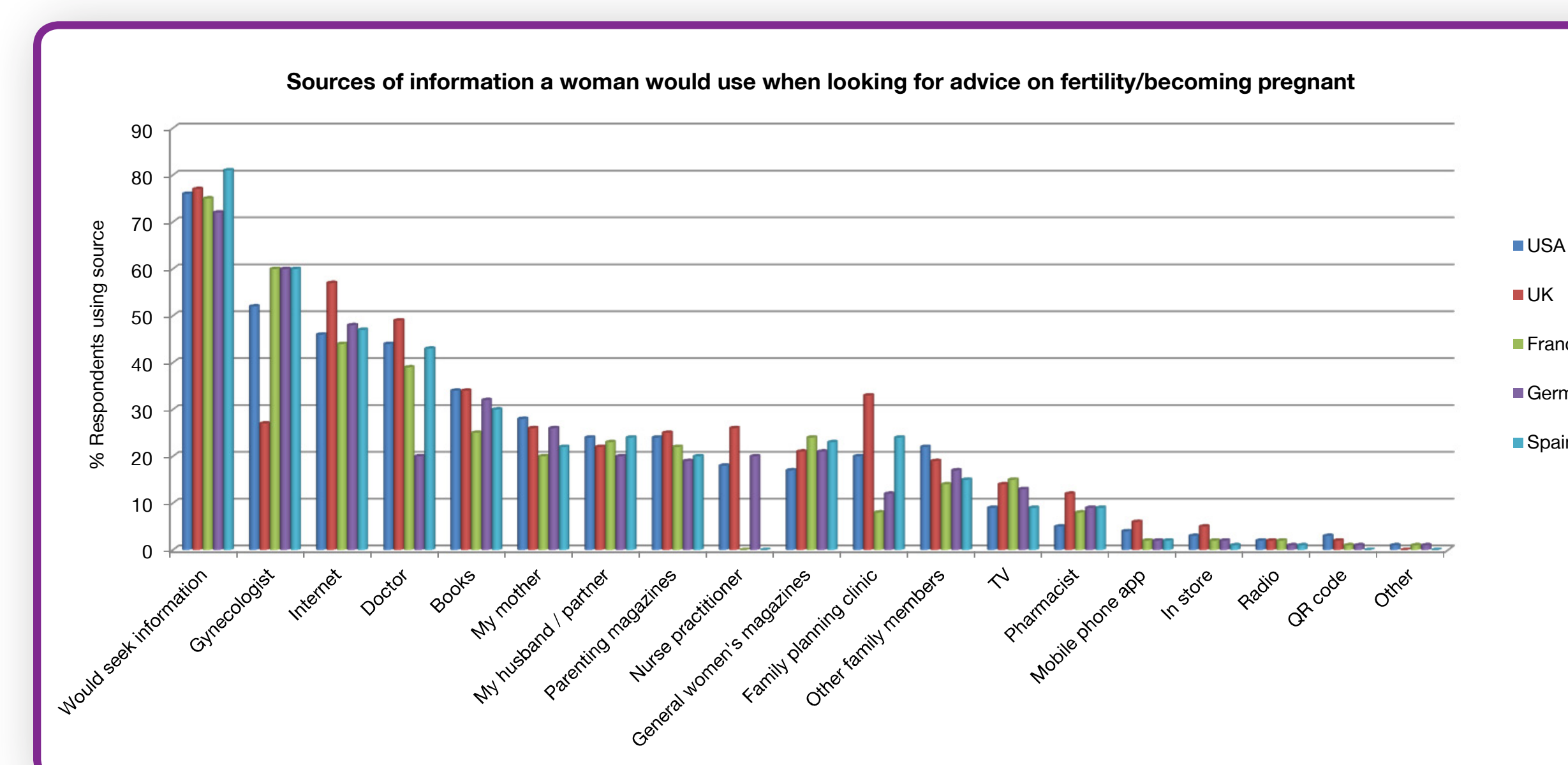
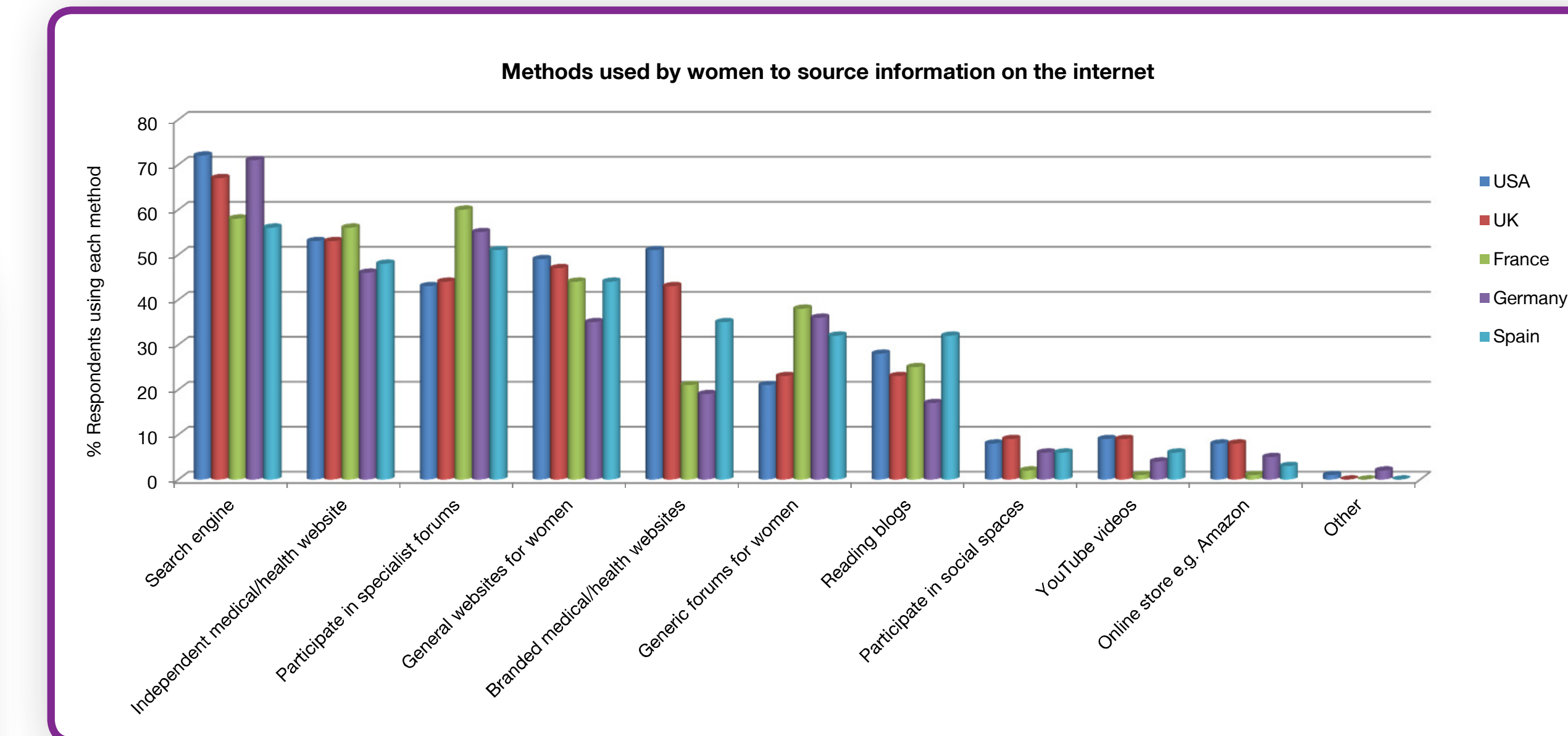


Figure 4: Methods women used for finding information on the internet. Respondents were those who were willing to have children. Numbers per country were USA=780, UK=715, France=776, Germany=751, Spain=829.



## Discussion

This survey found that, despite pregnancy being one of the most important phases of a woman's life, women's knowledge and awareness of fertility is limited.

- Many women still do not have the knowledge they need to plan pregnancy
- There is a general lack of understanding of the basics of fertility
- Women expect to get pregnant quickly, once they start trying
- A high proportion of pregnancies are still unplanned
- For those planning pregnancy, most women will actively look for information before starting a family
- Gynecologists (GPs in the UK) are cited as the most important source of advice
- The internet is now very commonly used to find healthcare information
- A variety of methods are used to find information from the internet, with specialist independent sites preferred.

Therefore, provision of quality on-line material is of great importance.

## DECLARATION OF INTEREST

This study was funded by SPD Swiss Precision Diagnostics GmbH, of which C. Pion is an employee. S. Johnson is an employee of SPD Development Company Ltd., a fully owned subsidiary of SPD Swiss Precision Diagnostics GmbH.

