hiya

Global Call Threat Report

Insights into today's worldwide spam problem

Q4 2023

v1.0

This is Hiya's fifth edition of the Global Call Threat Report. You can download the four other reports here.

Q3 2023 | **Q2 2023** | **Q1 2023** | **Q4 2022**

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❚ Section three

The state of spam calls by country
(Countries are hyperlinked)

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Section one

Phone spam is a global problem

Billions of unwanted calls

Introduction

Worldwide, phone spam is a massive problem. In the fourth quarter of 2023, Hiya observed 7.3 billion unwanted calls globally. That's more than 81 million spam calls every day!

The volume of spam varies widely by country. For example, residents of the UK and Canada receive an average of 4 spam calls per person each month, while US residents get 15. If you live in Brazil, you can expect 24 spam calls each month!

Spam rates also vary widely by country. Here are examples of the percentage of unidentified incoming calls labeled as spam:

- **Canada** – 22%

- **UK** – 28%

- **US** – 29%

- **Brazil** – 44%

- **France** – 47%

While some spam calls are merely annoying, fraud calls are intended to steal money or personal information. These, too, vary by country. Some fraud calls are seen worldwide — such as credit card scams, Amazon scams, and cryptocurrency scams — while others target specific countries. For example, HMRC tax scams are exclusive to the UK, Medicare scams are confined to the US, sweepstakes scams are big in Germany, and Canadians are bombarded with calls impersonating government officials.

On the horizon are AI-generated voice clone scams, which we are already starting to see in the first few weeks of 2024. Over the January 20 weekend, voters in New Hampshire received robocalls with a gen-AI faked voice of President Joe Biden telling them to skip the state's upcoming primary election. Hiya predicts these types of fraudulent calls will increase as the general election nears. And, as AI tools become more powerful and easily accessible, fraudsters will use AI to help create and distribute their scams.

To learn more about specific scams, see our Top 10 scams of the year below, and be sure to read the solution section to see how Hiya is using the latest technology to fight back against phone spam worldwide.

Billions of unwanted calls

Methodology

Hiya is in a unique position to measure phone spam around the world. Through its relationship with mobile device manufacturers and global downloads of the Hiya mobile app, Hiya has insight into spam calls in 39 countries. This report is based on a representative sample of calls observed during Q4 2023 on the Hiya Voice Security Network, which includes Samsung Smart Call enabled devices and the Hiya mobile app. In section two, which highlights the top 10 US states for spam, results are derived from the Hiya mobile app only, using data from users who have provided their US area code.

Spam is defined as unwanted calls, and includes both fraud calls and nuisance calls. The spam flag rate in this report represents calls that Hiya has identified and flagged as either "potential fraud" or "suspected spam." Spam ratios represent the number of unwanted calls from non-contacts, which are calls placed from numbers that are not in an individual's local address book. Hiya is constantly improving how it detects and flags nuisance and fraud calls, so fluctuations quarter to quarter do not necessarily indicate an increase or decrease in nuisance and fraud rates.

Graphs showing volumes of specific scams are based on user reports. When a call is received, Hiya users can tap a prompt to report the category of spam, and the user can leave a written comment. Keywords in those comments are used to measure the volume of the most common scams.

Busy holiday season — for scammers

The fourth quarter of the year is when the economy gears up for the busy holiday season. Spammers and scammers were busy too, bombarding consumers with unwanted calls and impersonating legitimate businesses. Scams related to package deliveries were especially popular during the holiday season in Q4, as were calls impersonating Amazon and other major retailers.

Spam calls increased from 6.55 billion in Q3 to 7.3 billion in Q4. Much of that increase is due to new users being added to the Hiya network, which expands our scope in flagging spam/fraud calls, but there are also seasonal increases. For example, spam calls peaked the week of November 27, hitting a volume of 357 million calls that week. It's no wonder. Late November typically marks the kickoff of the holiday shopping season and scammers are there, ready to take advantage of unsuspecting consumers.
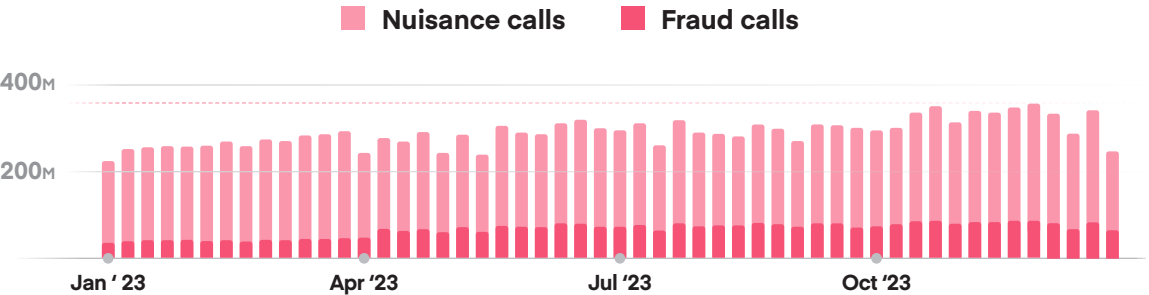
7.3B(Billion)
Global calls flagged as suspected spam in Q4 2023

81M(Million)
Calls flagged as suspected spam per day

19% Nuisance calls

6% Fraud calls

75% Other calls
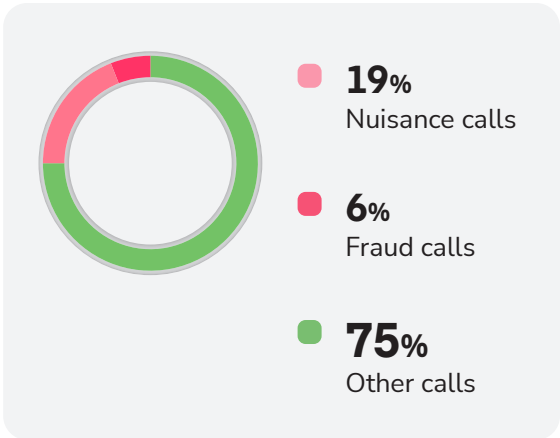
Incoming unwanted call volume - All countries

■ **Nuisance calls**   ■ **Fraud calls**

400M

200M

Jan ' 23   Apr '23   Jul '23   Oct '23

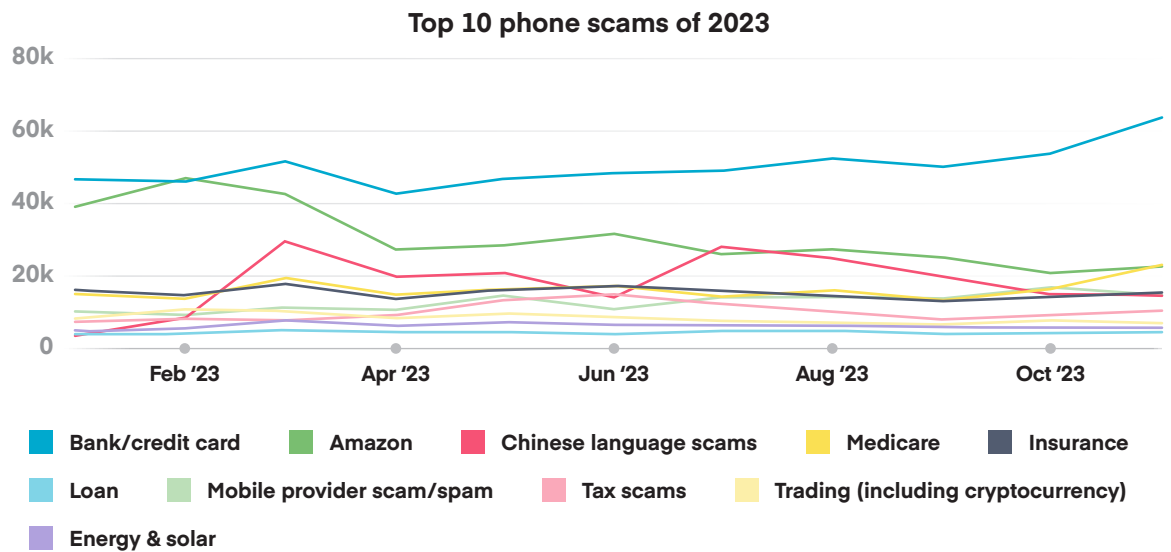*In 2023, spam calls peaked at 357 million calls during the week of November 27.*

Top 10 phone scams of the year

Some phone scams feature agents dialing pre-selected individuals, while others are mass campaigns that blanket the world, often using recorded messages and automated dialers. Hiya is able to identify and measure these high-volume campaigns and track them over time.

Consumers worldwide using Hiya Protect can report unwanted calls and can leave a comment describing the call. Keywords in those comments are used to measure the volume of specific scams. Below are the world's 10 most common phone scams of 2023.

Top 10 phone scams of 2023

Legend:
- Bank/credit card
- Amazon
- Chinese language scams
- Medicare
- Insurance
- Loan
- Mobile provider scam/spam
- Tax scams
- Trading (including cryptocurrency)
- Energy & solar

1. **Bank/credit card scams** – Financial scams are common throughout the world, and bank and credit card scams top the list. Often, the fraudster says there's a problem with your credit card or bank account and they will help you correct the problem — if you provide your account number and PIN number.

2. **Amazon impersonators** – Amazon is one of the world's top retailers, so fraudsters making random robocalls have a good chance of reaching someone with an Amazon account. Amazon impersonators may say that they suspect an unauthorized purchase and they need your Amazon account number and password to clear up the matter.

3. **Chinese language scams** – These scams begin with a robocall in Chinese that informs the recipient that there is some kind of legal problem and they need to press a button to speak to a representative of the Chinese Embassy, Chinese Consulate, or local police to avoid arrest.

4. **Medicare scams** – Although Medicare scams target US consumers 65 and over, they are so common that they rank as #4 worldwide. Often, the goal is to obtain the victim's Medicare number so the scammer can falsely bill the US government for medical services never rendered.

Top 10 phone scams of the year

5. **Insurance scams** – Insurance scams run the gamut: auto insurance, life insurance, health insurance, and even burial insurance. Scammers may be selling a bogus policy or simply trying to extract personal information.

6. **Loan scams** – Hiya users report getting scam calls offering fraudulent personal loans, business loans, home loans, car loans, government loans, pre-approved loans, and student loan forgiveness.

7. **Mobile phone provider impersonators** – Scammers pretend to be agents from one of several major mobile phone providers offering a new phone upgrade or a special rate on a phone contract. While some users report these as telemarketing calls, most report them as fraud, saying that the caller is trying to gather personal information.

8. **Tax scams** – These scams are popular in many countries, with scammers impersonating tax agents to collect unpaid taxes or obtain personal information. There are HMRC scams in the UK, IRS scams in the US, and CRA scams in Canada.

9. **Trading/investment scams (including cryptocurrency)** – Investment scams account for some of the largest monetary losses among phone scams. Whether it's stocks, real estate, or cryptocurrency, victims are lured by investments promising high returns, but they often lose much or all of the money they put in.

10. **Solar/Energy** – Energy costs remained elevated throughout the year, and that brought out scammers trying to cash in on people's desperation to save on energy bills. Scammers offer solar panels, half-price energy bills, clean energy upgrades, government energy subsidies, and free energy price comparisons.

What we're watching in 2024

In addition to these high-volume mass campaigns, there are some scams that will never make the top 10 list. These are scams targeting individuals, often using personal information found online or on social media pages. One example is the "loved ones scam" where fraudsters pretend to be a grandchild, son, or daughter in trouble and in need of immediate financial help.

Even more frightening are AI-generated voice clone scams. Robocalls using cloned voices are already being used in political campaigns. One recent case involved a voice clone robocall of US President Joe Biden encouraging Democratic voters in New Hampshire not to vote in the primary election, but to instead save their votes for the upcoming general election in November.

As generative AI becomes more common in the coming year, Hiya will be keeping an eye out for these scams. And Hiya will continue to use its advanced Adaptive AI to fight against these scams of the future.

Country Trends

Wide world of spam

The number of spam calls received per person per month varies widely depending on what country you live in. Residents of Germany get 2 calls per month, while Brazillians get 24.

Most unwanted calls are nuisance, not fraud

The US has an enviable 1% fraud rate. Thanks to spam protection services, most fraud calls are blocked before they ever reach the consumer. Going into 2024, we predict a rise in AI-generated scam calls leading up to the presidential election.

UK residents receive 4 spam calls per person each month

UK residents receive fewer spam calls per month than in the US (4 in UK vs. 15 in US), but they receive a higher proportion of fraud calls. Common in Q4 were HMRC tax scams and Amazon imposter scams.

Canadians average ⅓ fewer spam calls than Americans

Canadians average only 4 spam calls per month — about a third of what Americans get. Popular in Canada are calls that impersonate Amazon, air duct cleaning companies, and government officials.

Highest spam rates in Europe

France and Spain have the highest spam rates in Europe, as they have the past four quarters. Bank scams are common in Spain, while energy-saving scams are frequent in France.

Germans receive just 2 spam calls per month

Germans receive much fewer unwanted calls compared to other countries: just 2 per month. Sweepstakes and PayPal scams are common in Germany.

Brazilians endure 24 spam calls per month

Brazilians receive an average of 24 spam calls per month. Bank scams were the most common type of phone scam in Brazil in Q4.
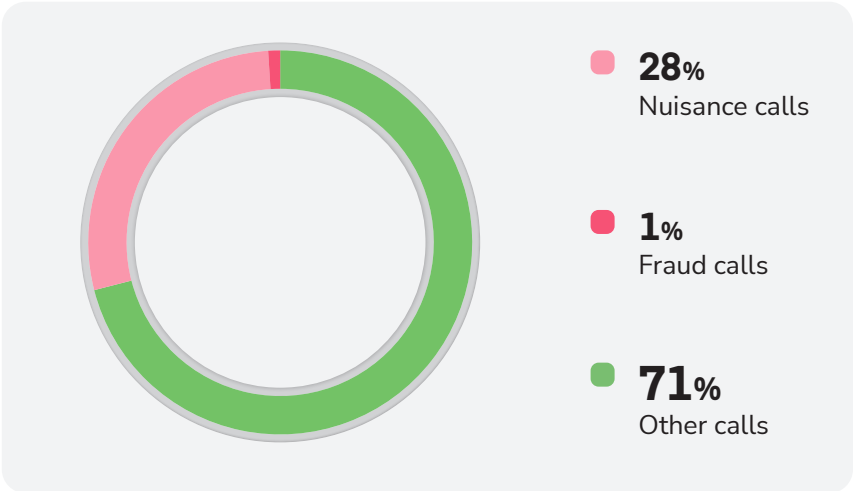
United States

POPULATION

324 Million

REGULATOR

Federal Communications Commission (FCC) ⊙

15 Calls/Month
Average spam calls per person

29%
Spam flag rate

28%
Nuisance calls

1%
Fraud calls

71%
Other calls

Americans receive plenty of nuisance calls, but little fraud

Americans receive an average of 15 spam calls per month, which is higher than all the European countries listed in this report, but not as high as some countries in South America. The US's spam rate is a relatively high 29%, but interestingly, only 1% of those unwanted calls are fraud, giving it one of the lowest fraud rates in the world. Most of the fraud calls in the US are blocked by the carrier at the network level, so they never reach the recipient's phone.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

United States

Scam trends in the US
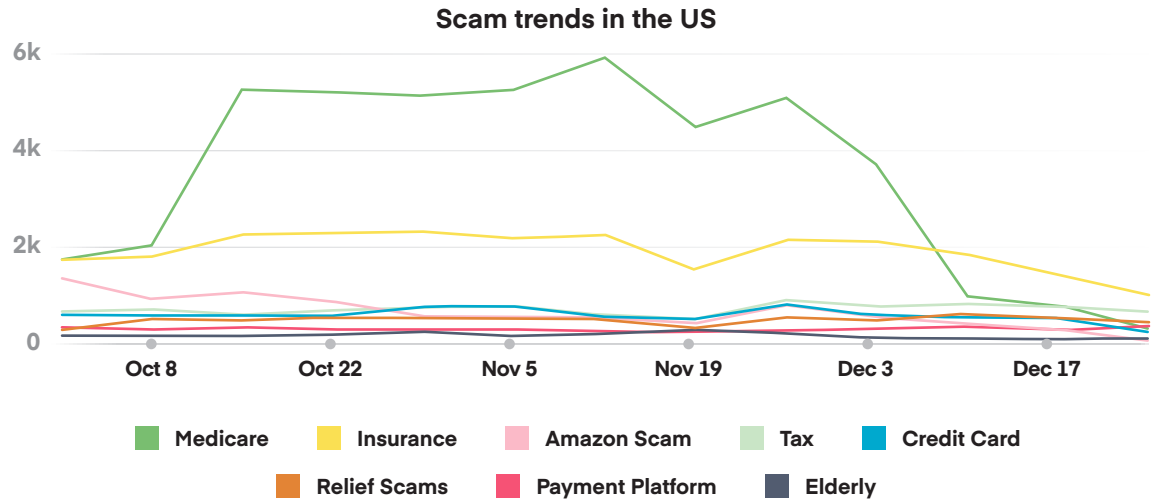
The most commonly reported scams in Q4 involved Medicare, insurance, taxes, Amazon, credit cards, relief (debt relief, tax relief, etc.) and payment platform apps such as Venmo, PayPal, Zelle and Cash App. Many users also reported that the scam call they received was preying on the elderly.

While many of these scams remained steady throughout the quarter, Medicare and health insurance scams spiked during the healthcare open enrollment period, which runs from late October to early December each year.

Q4 also saw news reports of victims being fooled by voice clones of their loved ones. Hiya expects these AI-generated scams will only increase in the coming year. There have already been examples of voice clone robocalls being used to influence the upcoming US presidential election.
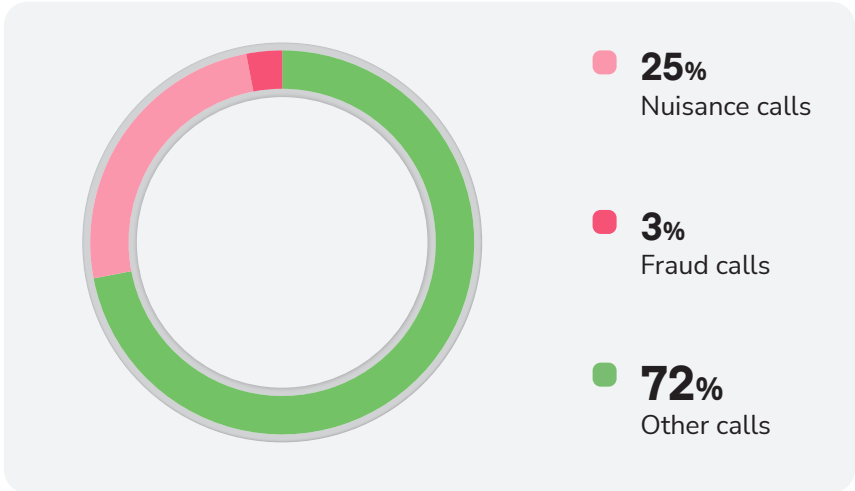
United Kingdom

POPULATION

65 Million

REGULATOR

Office of Communication (Ofcom) ⊙

Information Commissioner's Office (ICO) ⊙

4 Calls/Month
Average spam calls per person

28%
Spam flag rate

25%
Nuisance calls

3%
Fraud calls

72%
Other calls

28% of unidentified calls in the UK are spam

Although residents of the UK receive a relatively low number of spam calls each month (just 4 on average) the UK's spam rate from unidentified numbers is a relatively high 28%, and the rate of fraud calls is higher than in the US.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

United Kingdom

Scam trends in the UK
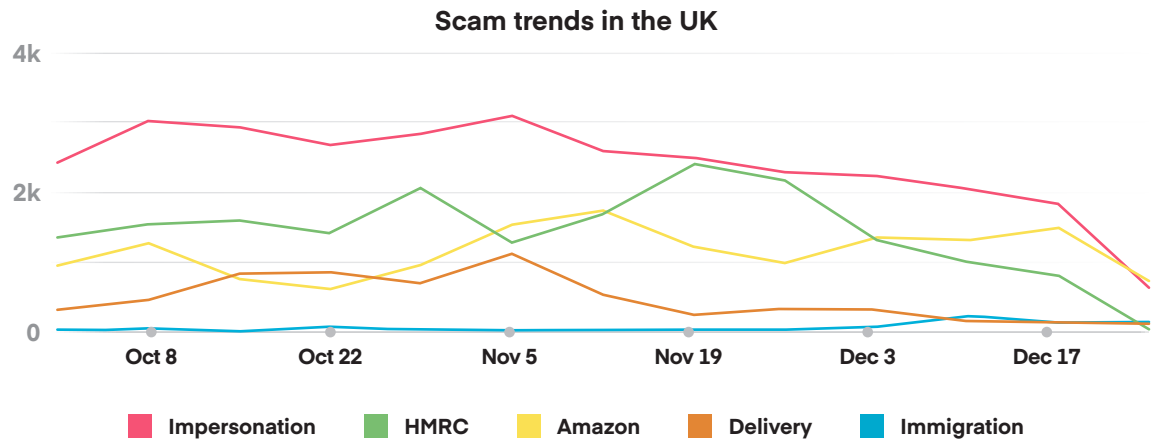
Q4 included the holiday season, so delivery scams and Amazon scams were popular. With delivery scams, fraudsters pretend to be from Royal Mail or one of the major package delivery companies claiming a delivery requires additional postage and the recipient will need to pay immediately so the item can be delivered. Scammers impersonating the UK's tax agency, HMRC, may have pivoted to holiday scams in late November, as HMRC fraud took a sharp drop just as the holiday season began.

In December, Hiya users began reporting an increase in robocalls warning that their immigration visas had expired (even if they were life-long citizens). The robocall prompted recipients to press a number to speak to an immigration officer. UK news reports tell of a current scam targeting hopeful immigrants living in other countries. Upon paying upfront fees for phony travel visas, Ukrainians are promised sponsor families, and Nigerians are promised skilled worker permits. After they arrive at UK airports, victims discover they have been fooled.
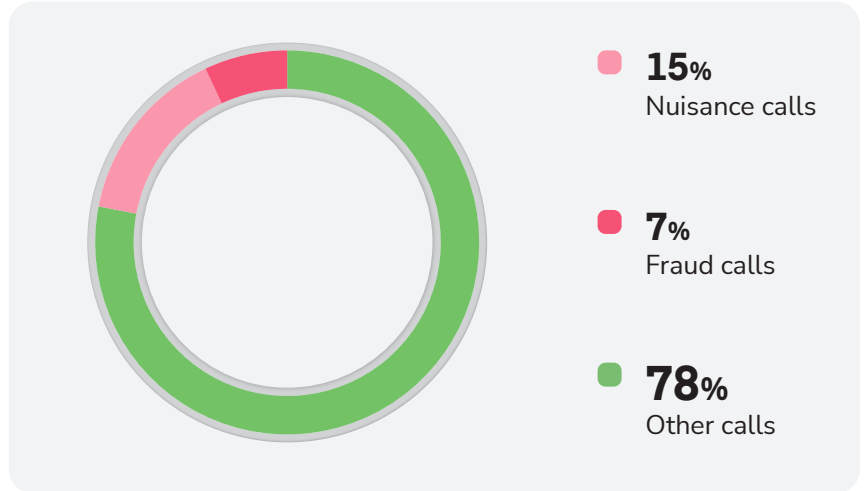
Canada

POPULATION

36 Million

REGULATOR

Canadian Radio-television and telecommunications Commission (CRTC) ⊙

4 **Calls/Month**
Average spam calls per person

22%
Spam flag rate

● **15**%
Nuisance calls

● **7**%
Fraud calls

● **78**%
Other calls

Canadians experience lower rates of spam

Of the seven countries with detailed analysis in this report, Canada has the lowest spam rate at 22%. Additionally, Canadians receive an average of just 4 spam calls per person per month, compared to 15 per month in the US.

That's not to say phone spam isn't a problem in Canada. Canada's proportion of fraud calls, 7%, is still much higher than the US's 1%.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Canada

Scam trends in Canada

Amazon	Impersonation	Credit Card	Air Duct	Delivery
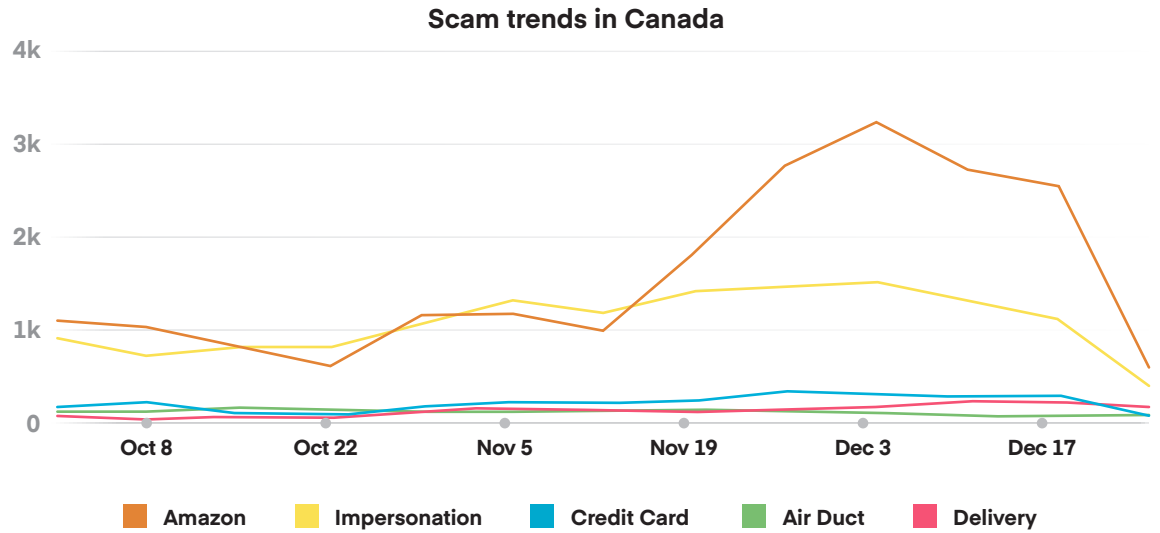
Just as we saw in the UK, holiday-related fraud was popular in Q4. Package delivery and credit card scams were fairly consistent throughout the quarter, but Amazon scams took a huge jump in mid-November and then dropped off right after Christmas. Also in Q4, the colder weather provided fertile ground for air duct cleaning scams that have long plagued Canadian consumers.

Spain

POPULATION

46 Million

REGULATOR

Comisión Nacional de los Mercados y la Competencia (CNMC) ⊙

10 Calls/Month
Average spam calls per person

46%
Spam flag rate


38%
Nuisance calls

8%
Fraud calls

54%
Other calls
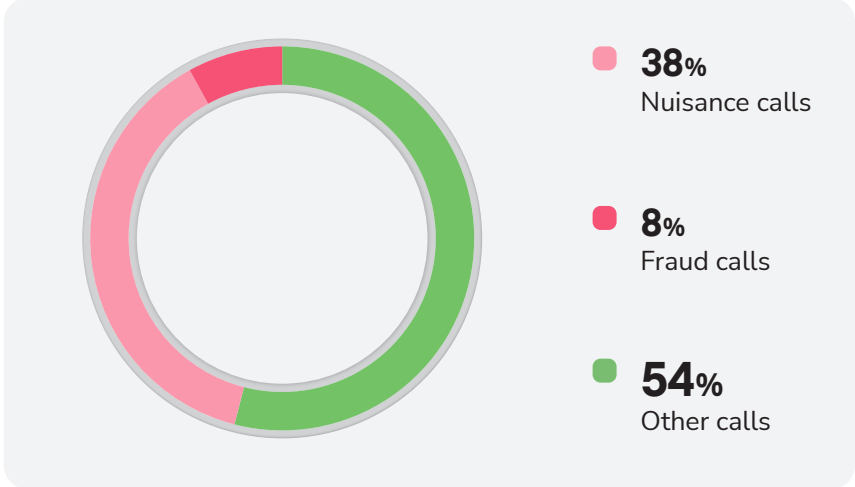
Spain combines high rates of spam and fraud

In the past four quarters, Spain had the highest spam rate in Europe. In Q4, France's 47% spam rate narrowly edged out Spain's 46% rate. While Spaniards might be relieved, the proportion of spam calls that are fraud is still double that of France. Spain has a fraud rate of 8% compared to France's 4%. Only Sweden has a higher fraud rate in Europe.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Scam trends in Spain

Legend: Banco, Seguros, Familia, Paquete, Criptomonedas
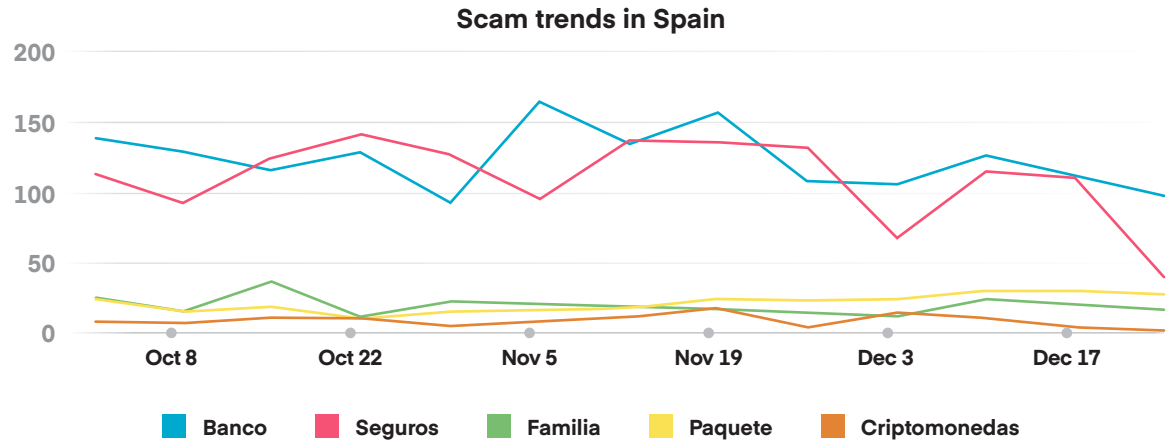
Scam calls impersonating banks were the most-reported type of fraud in Spain during Q4. Insurance (seguros) scams came in a close second. Package (paquete) delivery and cryptocurrency (criptomonedas) scams were also common in Spain, as they are in many other countries.

Also making the list are family member scams (familia), where fraudsters pose as a daughter, son, grandchild, or other family member in trouble and in need of an urgent money transfer.

France

POPULATION

67 Million

REGULATOR

Autorité de Régulation des Communications Électroniques des Postes (ARCEP) ⊗

10 Calls/Month
Average spam calls per person

47%
Spam flag rate

43%
Nuisance calls

4%
Fraud calls

53%
Other calls
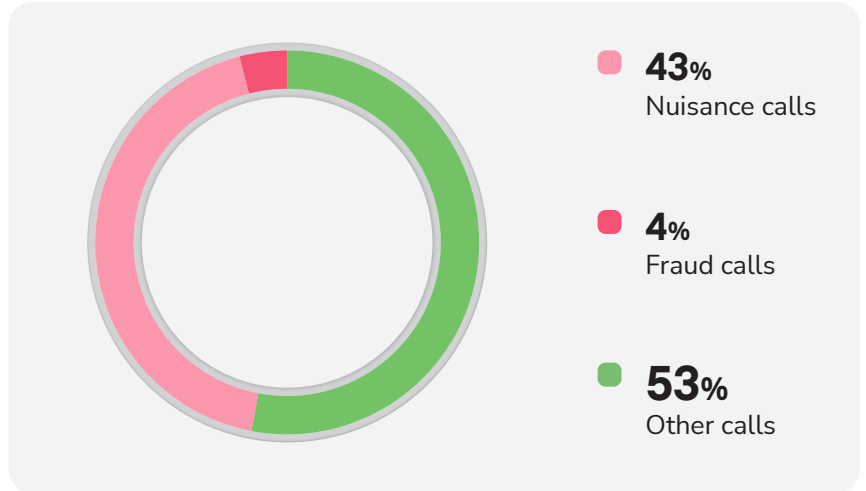
France has highest spam rate in Europe

Residents of both France and Spain receive the same number of unwanted calls each month: an average of 10 per person. But in Q4, France overtook Spain as the European country with the highest spam rate, hitting 47%. That means that nearly half of the unidentified calls received in France were unwanted: either nuisance or fraud.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Scam trends in France

■ EDF	■ Bank card	■ Banque (Bank)	■ CPF	■ Police	■ Family scam
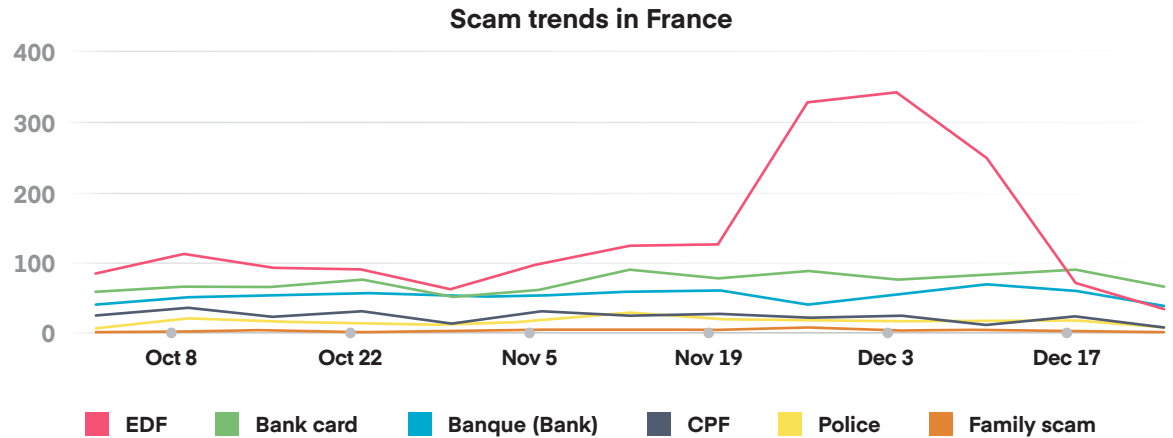
The most prolific phone scam in France in Q4 impersonated the French electric utility company EDF Energy. With this scam, imposters lure victims with government-funded energy subsidies, solar panel installation, and other schemes to save money on energy costs. Also popular were scams impersonating bank officials, and ploys to cheat citizens out of their Compte Personnel de Formation (CPF) funds, which are provided by the French government to pay for professional training courses.

The "Hello mom" scam that has been popular in Germany is now showing up in France. With this trick, the scammer pretends to be a son or daughter and sends an SMS message saying their phone is broken and requests to connect on WhatsApp. An urgent request for money soon follows.
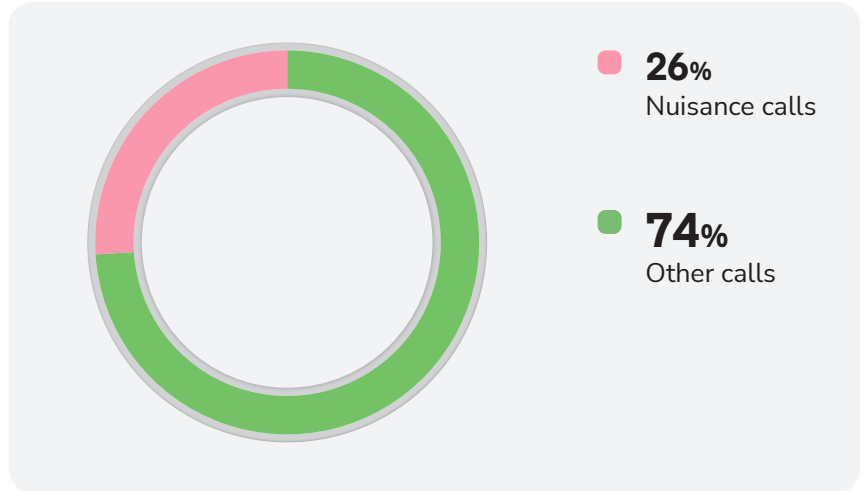
Germany

POPULATION

82 Million

REGULATOR

Bundesnetzagentur (BNetzA) ⊙

2 Calls/Month
Average spam calls per person

26%
Spam flag rate

● **26%** Nuisance calls

● **74%** Other calls
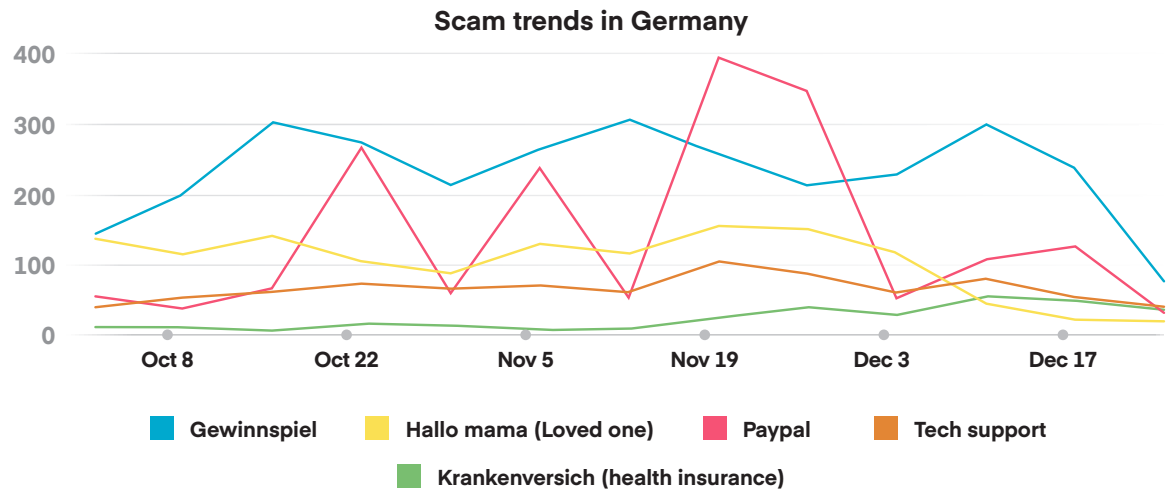
Germans average just 2 spam calls per month

Of the seven featured countries in this report, Germany gets the fewest spam calls. Germans receive an average of only 2 spam calls per person per month.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Scam trends in Germany

Legend:
- **Gewinnspiel** (blue)
- **Hallo mama (Loved one)** (yellow)
- **Paypal** (pink)
- **Tech support** (orange)
- **Krankenversich (health insurance)** (green)

Always popular in Germany are sweepstakes (gewinnspiel) scams, where fraudsters tell citizens they've won a large prize, but they need to pay taxes in order to claim the prize. Payment app scams are on the rise in many countries, and in Germany PayPal scams are popular. Toward the end of Q4 year there was a rise in scam calls selling private health insurance (krankenversich).

The "hallo mama" scam continues to make the rounds in Germany. The ploy begins with an SMS message saying, "Hello mama. I've lost my mobile phone. Please message me on WhatsApp at this number." If the conversation continues on WhatsApp, a request for money inevitably follows.

* Hiya uses a single "spam" warning for both nuisance and fraud calls.
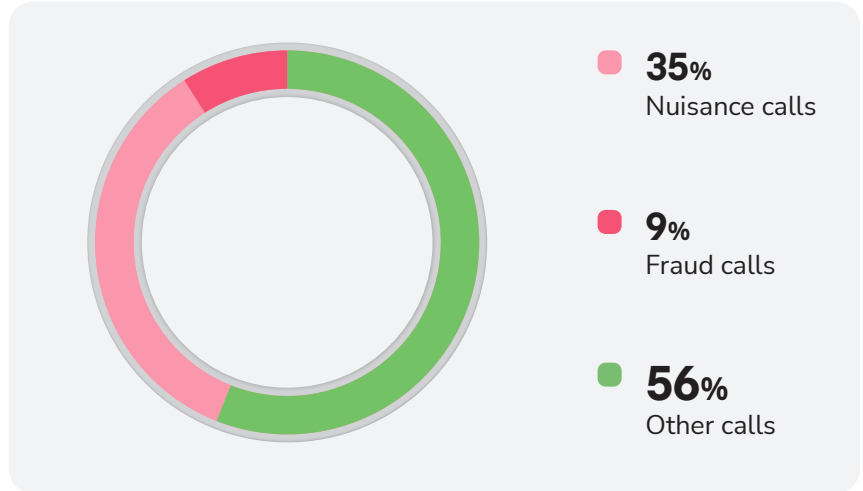
Brazil

POPULATION

206 Million

REGULATOR

Agência Nacional de Telecomunicações (Anatel) ⊙

24 Calls/Month
Average spam calls per person

44%
Spam flag rate

● **35**%
Nuisance calls

● **9**%
Fraud calls

● **56**%
Other calls

Brazillians endure an average of 24 spam calls per month

Brazillians receive an average 24 spam calls per month. That's more than double the rate seen in the other six countries featured in this section. Nearly half of the unidentified calls in the country are spam (44%) and 9% of those unwanted calls are fraud.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Scam trends in Brazil
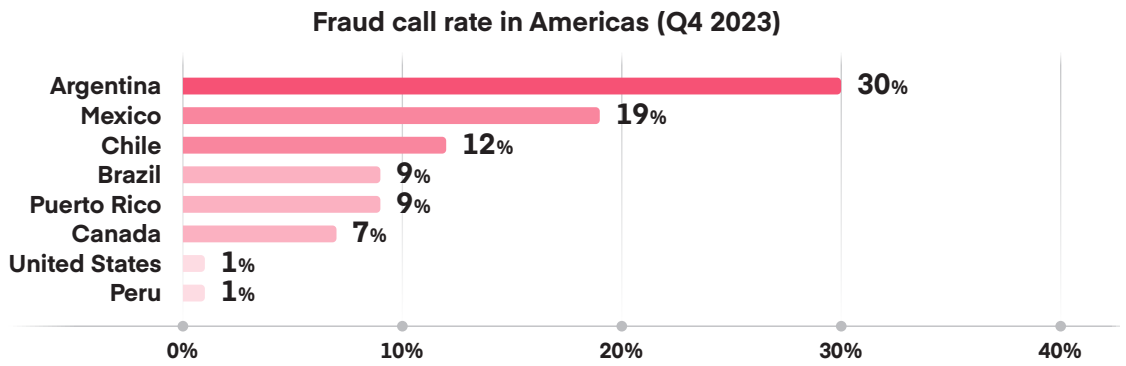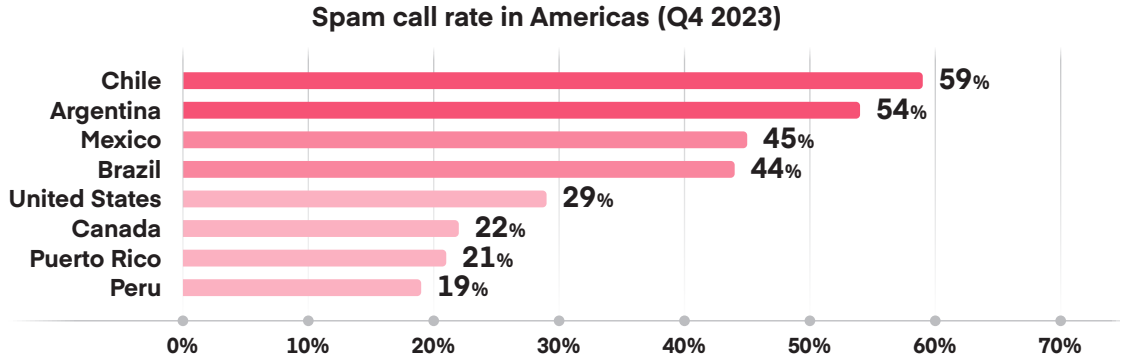

Legend: ■ Banco (Bank)　■ Loved ones
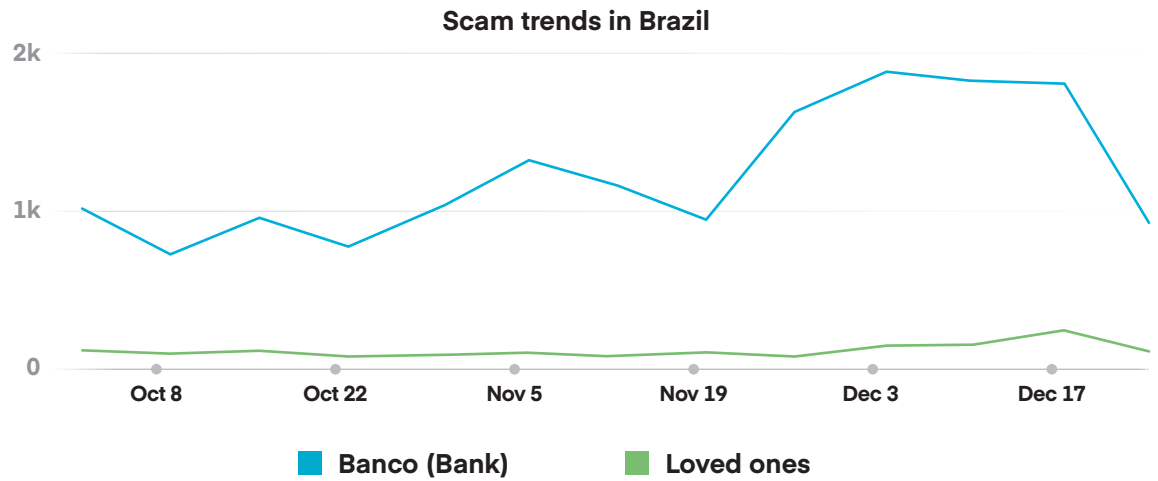
Hiya's data shows that banking scams were by far the most common type of phone scam in Brazil in Q4. Hiya users in Brazil tell of callers impersonating bank employees who ask the call recipient to confirm personal information and passwords. A security awareness group warns of the Brazilian Ghost Hand Attack, where fraudsters convince victims to download a mobile app to protect their account, then remotely take control of the phone — as if a ghost — and remove all the money in the account.

Loved ones scams are popular around the world and Brazil gets its share of these too. A call comes in from a distraught loved one saying "Mother I was robbed" or "Dad, I'm hurt, help me." The panicked parent or grandparent quickly wires money to the child and later discovers they've been scammed.

Americas

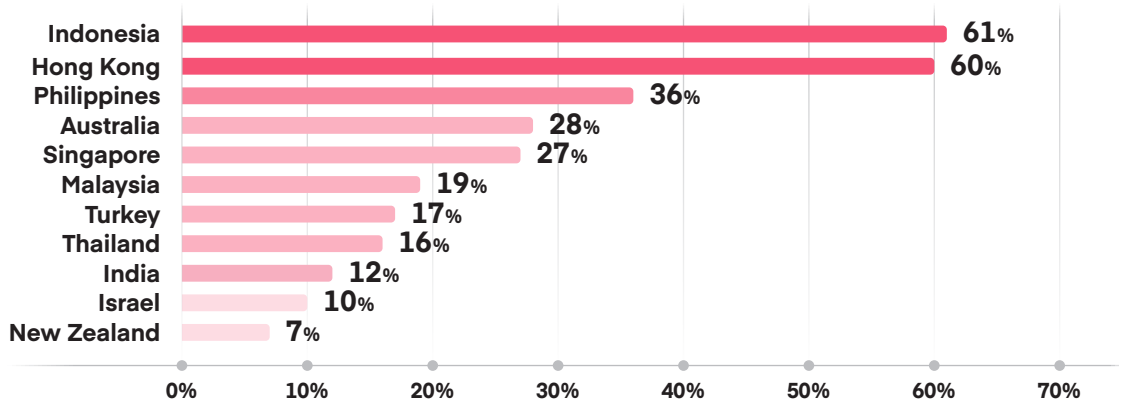Chile tops the Americas with a 59% spam rate, while Argentina sees the highest proportion of fraud calls

Spam call rate in Americas (Q4 2023)
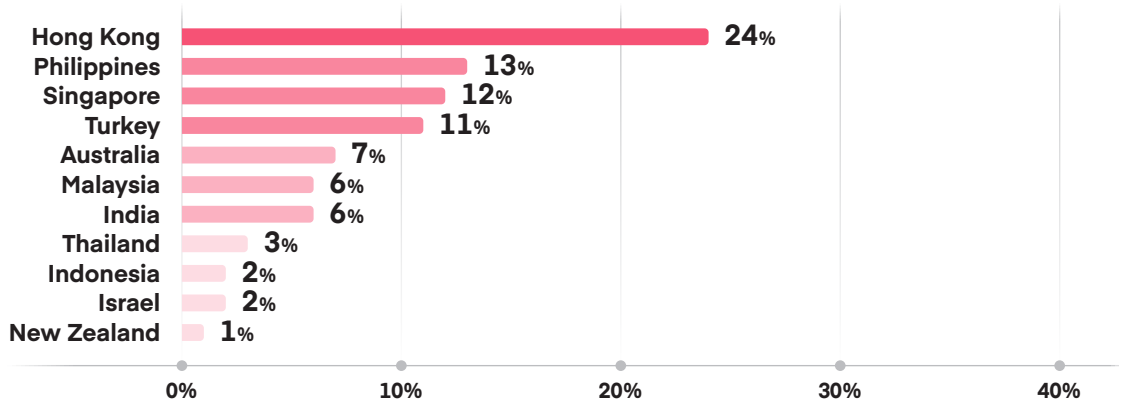
Country	Rate
Chile	59%
Argentina	54%
Mexico	45%
Brazil	44%
United States	29%
Canada	22%
Puerto Rico	21%
Peru	19%

Fraud call rate in Americas (Q4 2023)

Country	Rate
Argentina	30%
Mexico	19%
Chile	12%
Brazil	9%
Puerto Rico	9%
Canada	7%
United States	1%
Peru	1%

Asia/Pacific

Indonesia leads the world with a 61% spam rate. Hong Kong has the highest proportion of fraud calls in the region

Spam call rate in Asia/Pacific (Q4 2023)

Country	Rate
Indonesia	61%
Hong Kong	60%
Philippines	36%
Australia	28%
Singapore	27%
Malaysia	19%
Turkey	17%
Thailand	16%
India	12%
Israel	10%
New Zealand	7%

Fraud call rate in Asia/Pacific (Q4 2023)

Country	Rate
Hong Kong	24%
Philippines	13%
Singapore	12%
Turkey	11%
Australia	7%
Malaysia	6%
India	6%
Thailand	3%
Indonesia	2%
Israel	2%
New Zealand	1%

Europe

France and Spain have the highest spam rates in Europe, while Sweden has the highest proportion of fraud calls

Spam call rate in Europe (Q4 2023)

Country	Rate
France	47%
Spain	46%
Italy	41%
Sweden	32%
Finland	31%
Poland	29%
United Kingdom	28%
Germany	26%
Portugal	23%
Belgium	22%
Denmark	20%
Switzerland	18%
Greece	17%
Czech Republic	15%
Norway	15%
Netherlands	15%
Austria	11%
Slovakia	10%
Hungary	9%
Ireland	6%
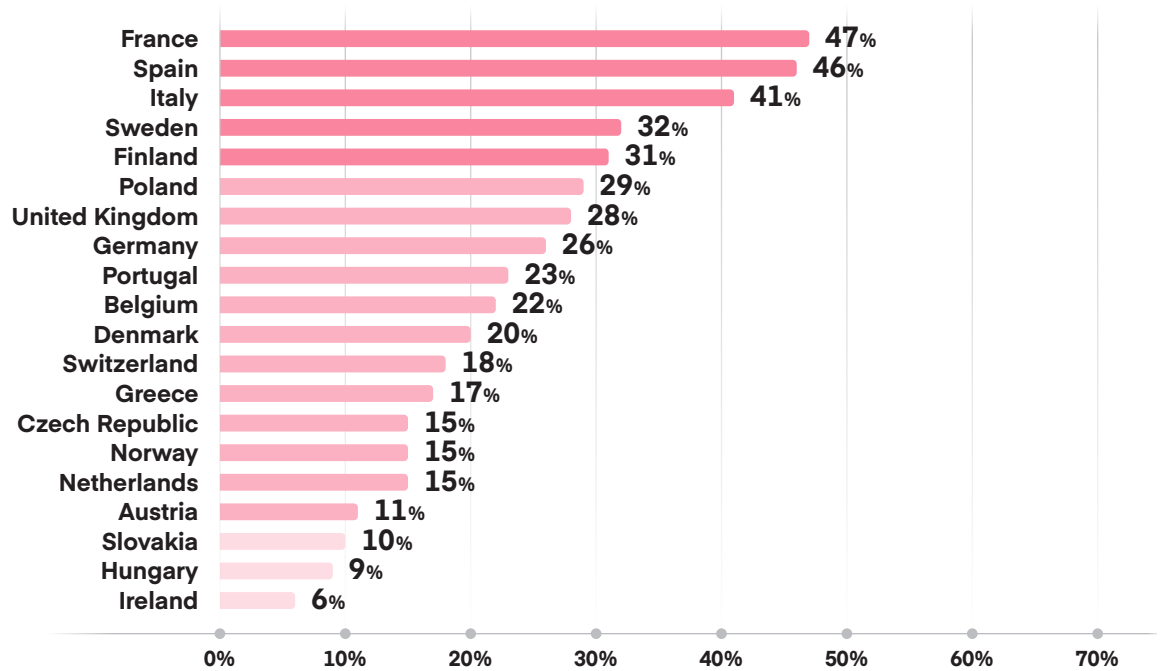
Fraud call rate in Europe (Q4 2023)

Hiya uses a single 'spam' warning for both nuisance and fraud calls in Germany and Italy

Country	Rate
Sweden	9%
Spain	8%
Finland	7%
Poland	6%
France	4%
Netherlands	3%
United Kingdom	3%
Hungary	2%
Austria	2%
Greece	2%
Denmark	2%
Belgium	2%
Portugal	2%
Ireland	1%
Slovakia	1%
Norway	1%
Czech Republic	1%
Switzerland	1%
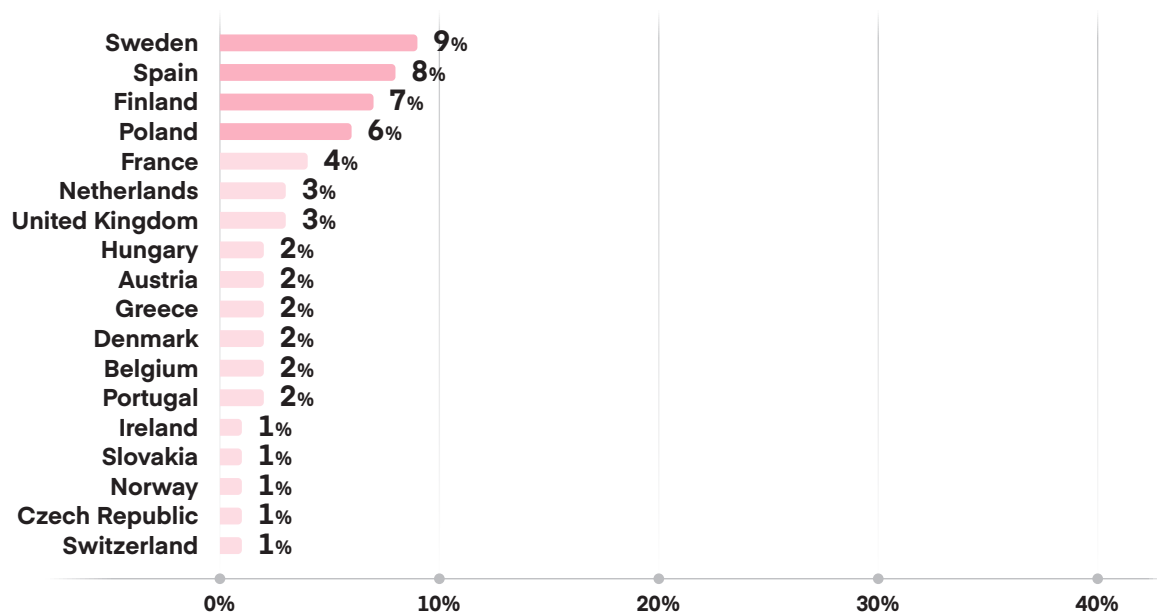
How carriers can fight back against spam

Hiya Protect is a complete call protection solution that enables mobile carriers to protect their subscribers by blocking fraud calls and labeling nuisance calls. It is used by carriers, device manufacturers, and network providers who are looking to create a differentiated voice offering and increase customer satisfaction.

Hiya Protect is powered by the industry's largest and most comprehensive real-time data set, with call event data from more than 250 million users worldwide.

Hiya Protect uses Adaptive AI, the industry's only self-learning spam protection system that adjusts to the latest fraud and nuisance calls. Unlike other solutions, it uses a multi-layer approach to analyze every aspect of a phone call, from the phone number to the call recipient, the enterprise making the call, and the characteristics of the call itself.

Working with Hiya, carriers can meet regulatory requirements designed to protect users from malicious phone calls. Hiya regularly works alongside carriers in conversations with regulatory bodies around the world to ensure that provided capabilities meet or exceed both existing and emerging regulations. This includes the FCC in the US, CRTC in Canada, and Ofcom in the UK.

For more information about Hiya Protect, visit our website, or send us a message.

Individuals who don't have network-based protection through their mobile carrier or device manufacturer can download the Hiya mobile app to their smartphone.

Section two

Top 10
US states

Spam call rates in Q4

Not only is Hiya able to measure spam rates in countries around the world, but user data also reveals which US states get the most — and least — spam calls.

Spam rates in this section are per capita: based on the number of residents in each state. Data comes from the Hiya mobile app, from users who have provided their US area code. States with fewer than 1,000 active users were not included.
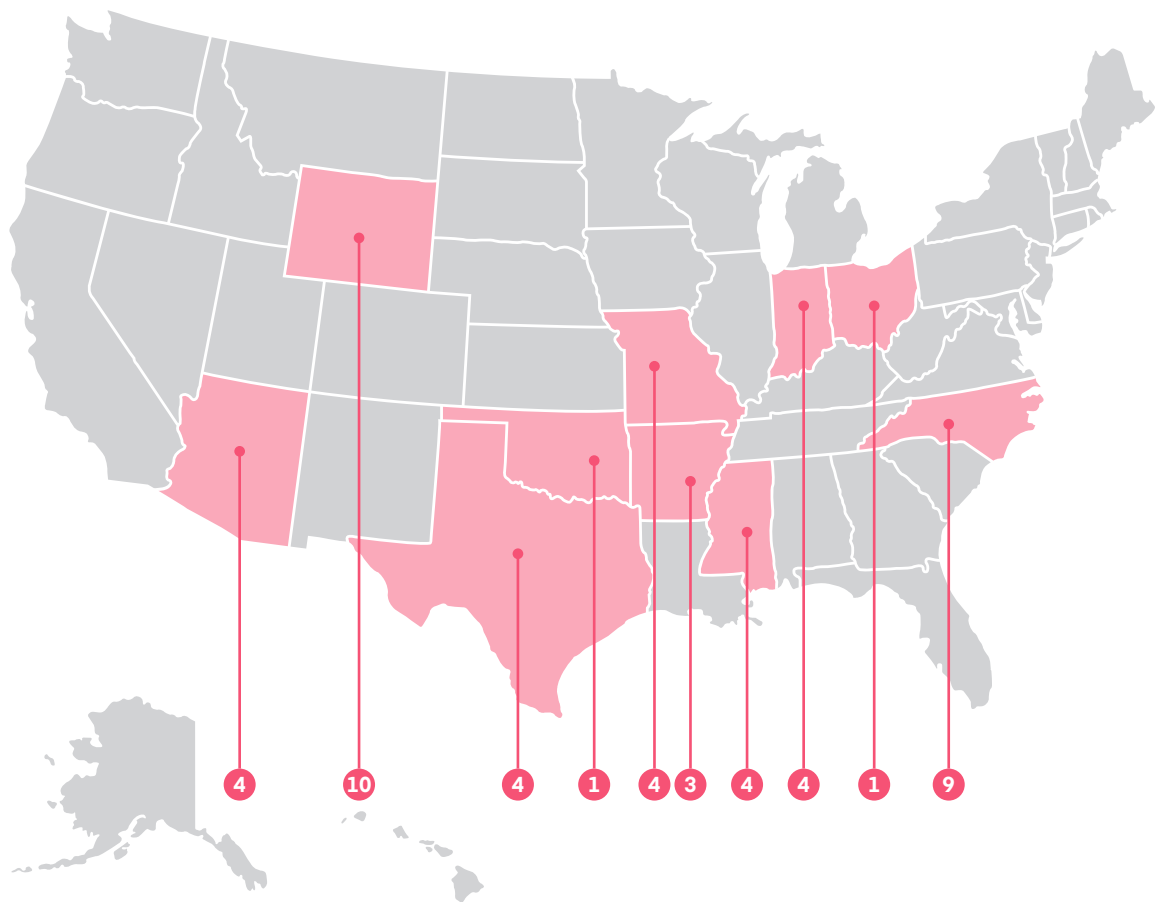
1 Oklahoma 28%		**4** Mississippi 26%	
1 Ohio 28%		**4** Texas 26%	
3 Arkansas 27%		**4** Arizona 26%	
4 Missouri 26%		**9** North Carolina 25%	
4 Indiana 26%		**10** Wyoming 24%	

Spam call rates in Q4

US states with the highest and lowest spam rates

If you hate getting spam calls, don't move to Oklahoma or Ohio. They have the highest spam rates in the US, at 28%. Not far behind is Arkansas, with a spam rate of 27%. If you don't mind the cold, you may consider moving to Alaska. Its spam rate is 13%, less than half the rate of Oklahoma.

Figures below represent the percentage of unwanted calls from non-contacts, which are calls placed from numbers that are not in an individual's local address book.

US States with highest spam rate Q4 2023
(Percentage of unidentified calls flagged as spam)

State	Rate
Oklahoma	28%
Ohio	28%
Arkansas	27%
Missouri	26%
Indiana	26%
Mississippi	26%
Texas	26%
Arizona	26%
North Carolina	25%
Wyoming	24%
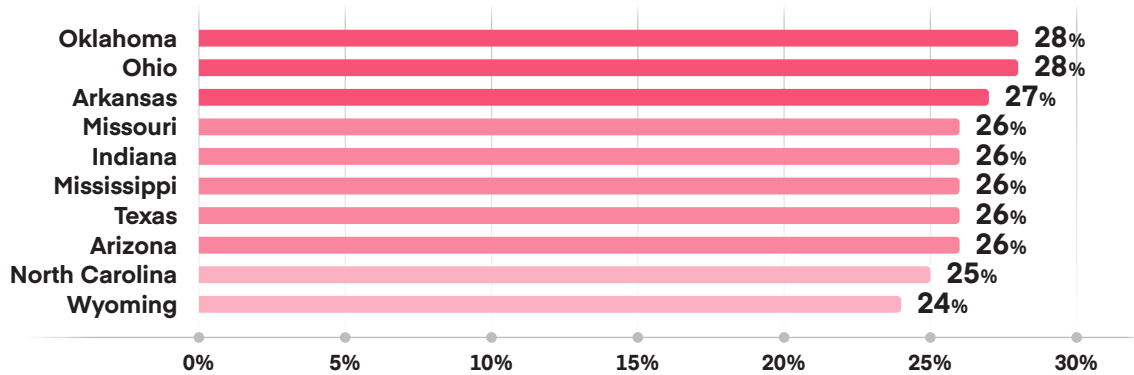
US States with lowest spam rate Q4 2023
(Percentage of unidentified calls flagged as spam)

State	Rate
Alaska	13%
North Dakota	14%
Georgia	14%
South Dakota	15%
Hawaii	15%
New York	16%
Rhode Island	16%
West Virginia	17%
Louisiana	17%
Delaware	17%
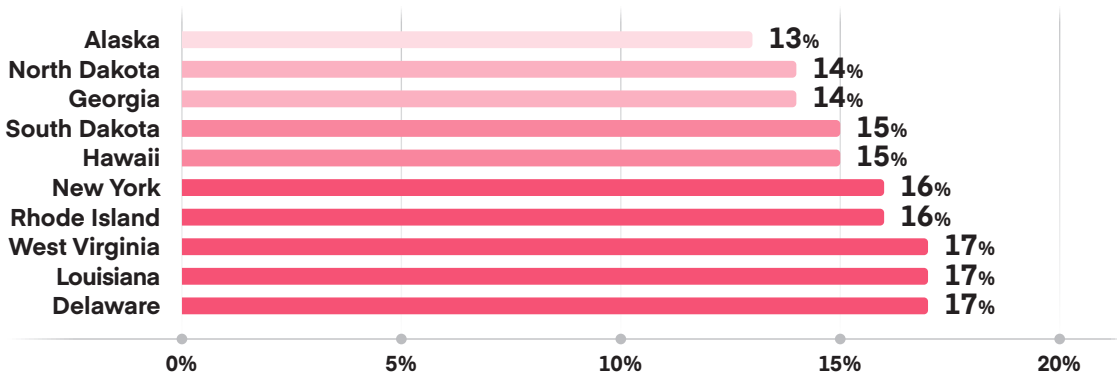
Oklahoma

POPULATION

3.99 million

REGULATOR

FCC ⊙

23.8 Calls/Month
Average spam calls
per person

28.47%
Spam flag rate

27.91%
Nuisance calls

0.56%
Fraud calls

72.53%
Other calls
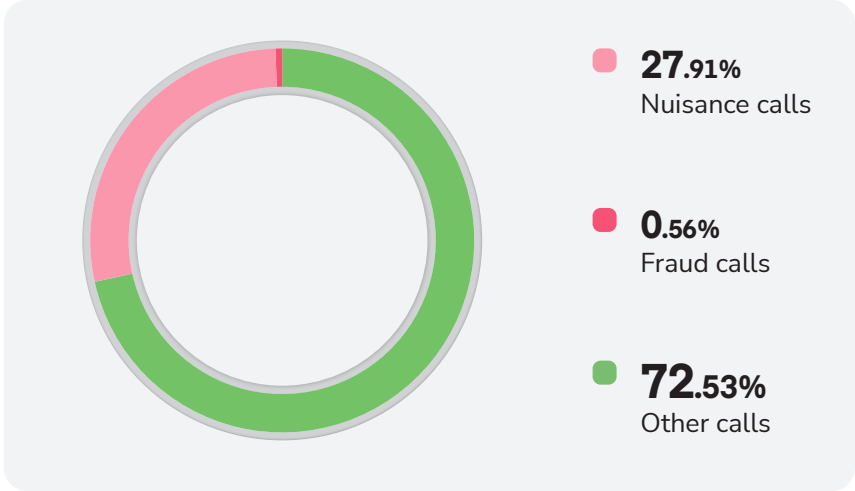
Oklahoma tops the US with highest spam rate

In Q4, Oklahoma had the highest spam rate among the 50 US states. It bumped off New Hampshire, which held the top spot last quarter.

According to the Federal Trade Commision, imposter scams are the most commonly reported type of fraud in Oklahoma. Many scams fall under that general category, but the FTC also lists other scams reported by residents of Oklahoma. Those include healthcare scams and fraud relating to internet/phone/mobile services, investments, and sweepstakes/lotteries.

In November, a county sheriff's office in Oklahoma issued a warning to citizens about ongoing Medicare scam calls. It states that Medicare numbers are often more valuable to criminals than credit card or Social Security numbers. Convincing a victim to reveal their Medicare number allows criminals to bill Medicare for false medical services or supplies.

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Section three

Spam calls
by country

Argentina

PERIOD

Q4
Oct 2023 - Dec 2023

6 **Calls/Month**
Average spam calls
per person

54%
Spam flag rate
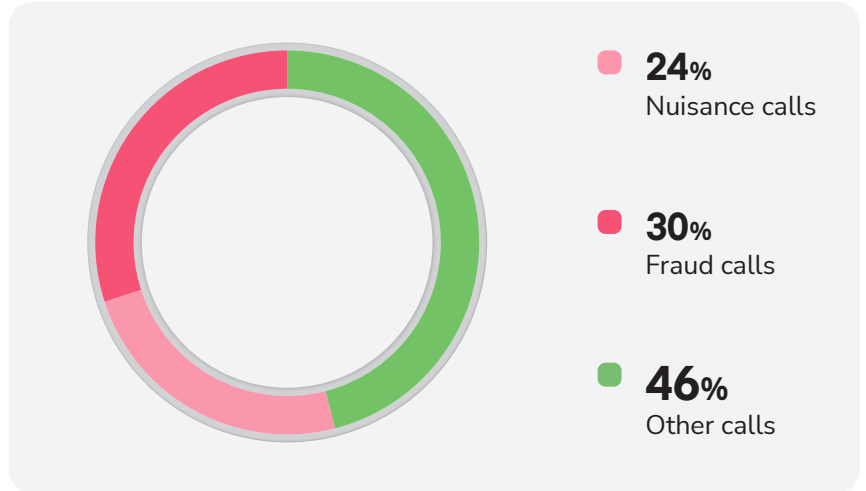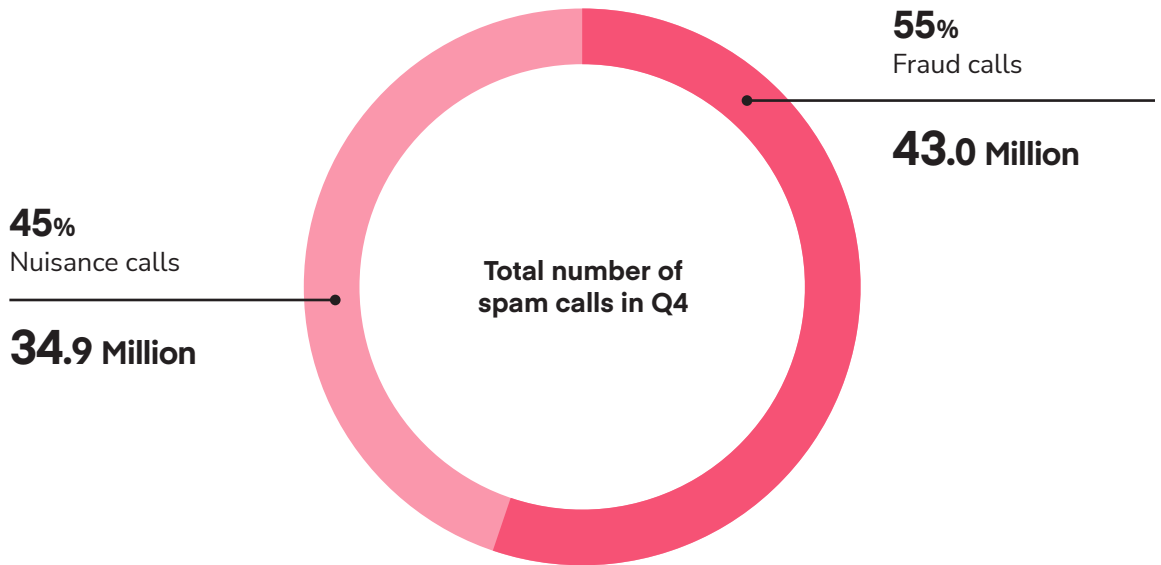
● **24**%
Nuisance calls

● **30**%
Fraud calls

● **46**%
Other calls

55% of all spam calls in Q4 were labeled as fraud

55%
Fraud calls

43.0 Million

45%
Nuisance calls

34.9 Million

**Total number of
spam calls in Q4**

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
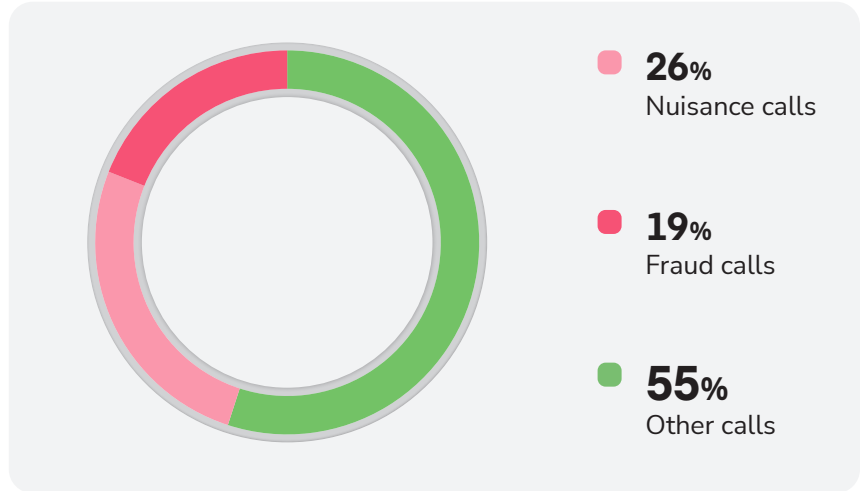address book.

Source:
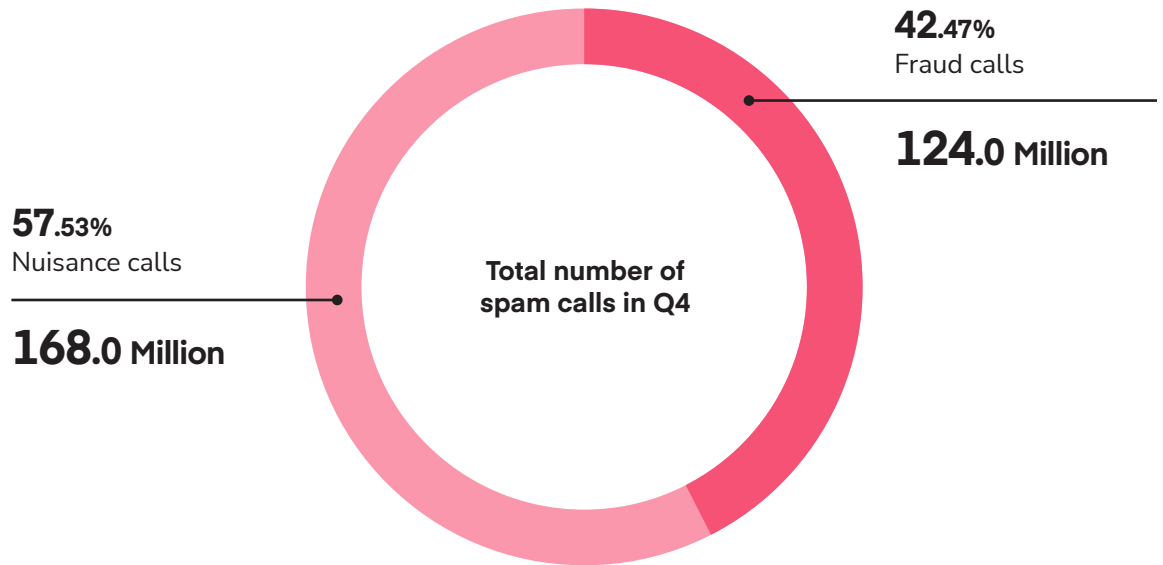Samsung Smart Call users
in Argentina

Brazil

PERIOD

Q4
Oct 2023 - Dec 2023

24 Calls/Month
Average spam calls
per person
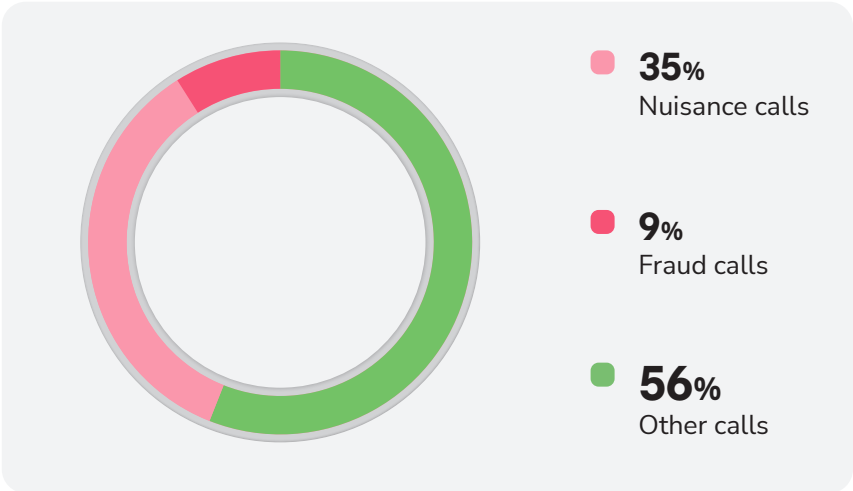
44%
Spam flag rate

35%
Nuisance calls

9%
Fraud calls

56%
Other calls

20% of all spam calls in Q4 were labeled as fraud

20.90%
Fraud calls

265.0 Million

79.10%
Nuisance calls

1,003.00 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Brazil

Canada
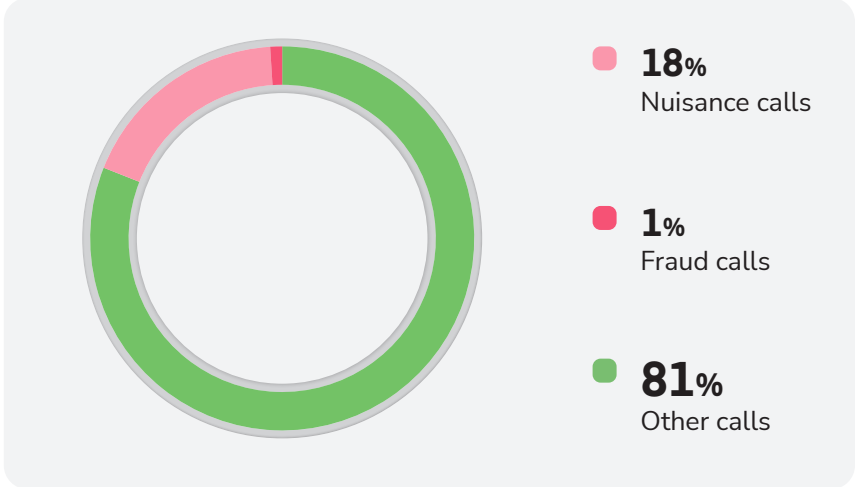
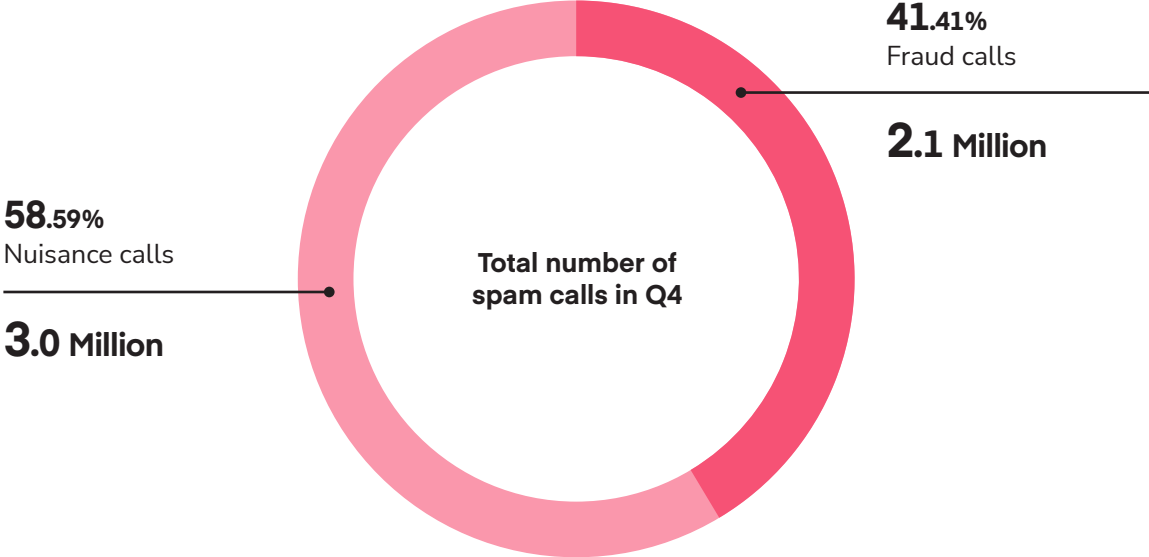**4** **Calls/Month**
Average spam calls
per person

22%
Spam flag rate

- **15**% Nuisance calls
- **7**% Fraud calls
- **78**% Other calls

27% of all spam calls in Q4 were labeled as fraud

27.54%
Fraud calls

72.6 Million

72.46%
Nuisance calls

191.0 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
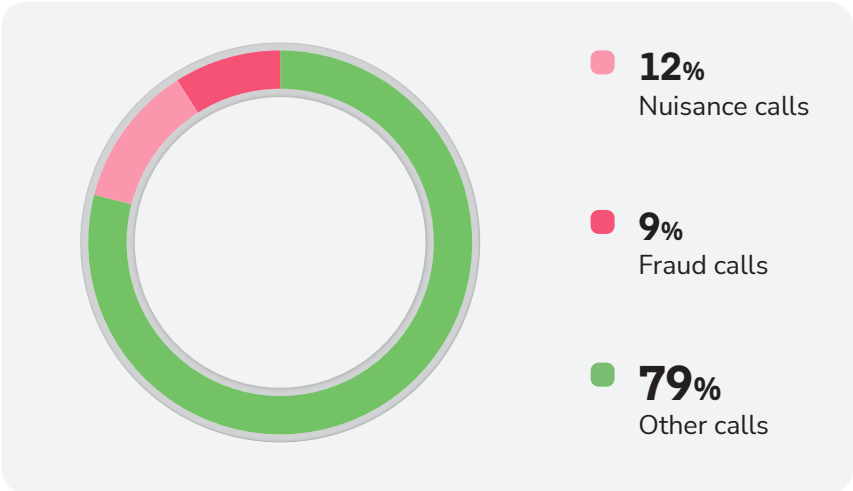address book.

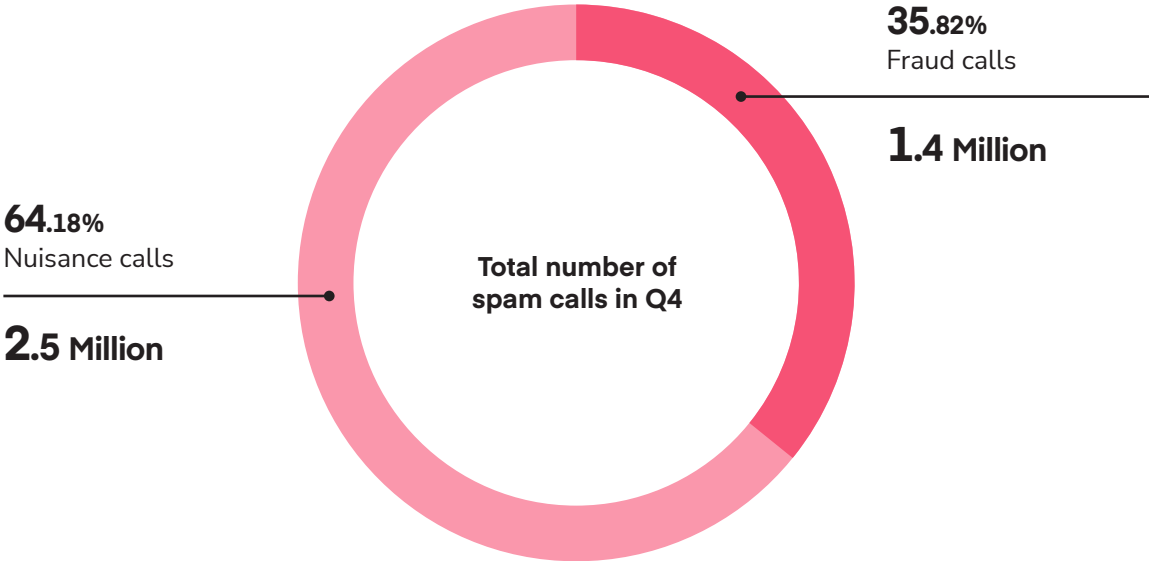Source:
Samsung Smart Call users
in Canada

Chile

PERIOD

Q4
Oct 2023 - Dec 2023

20 Calls/Month
Average spam calls per person

59%
Spam flag rate
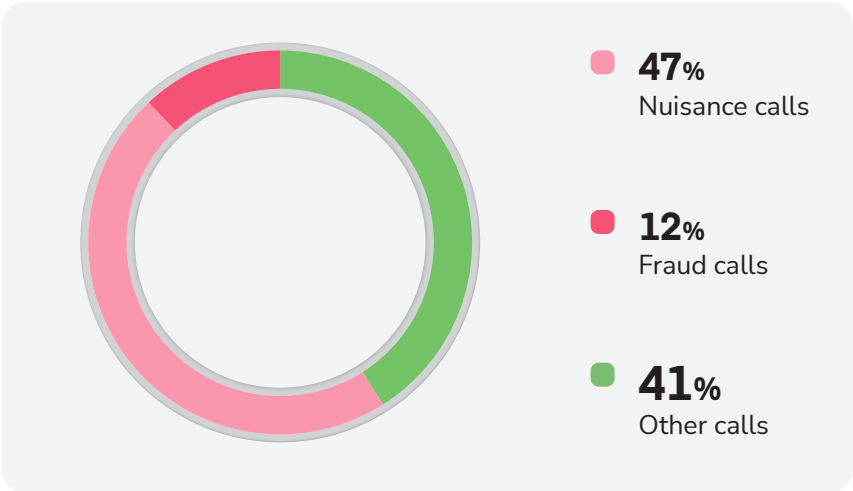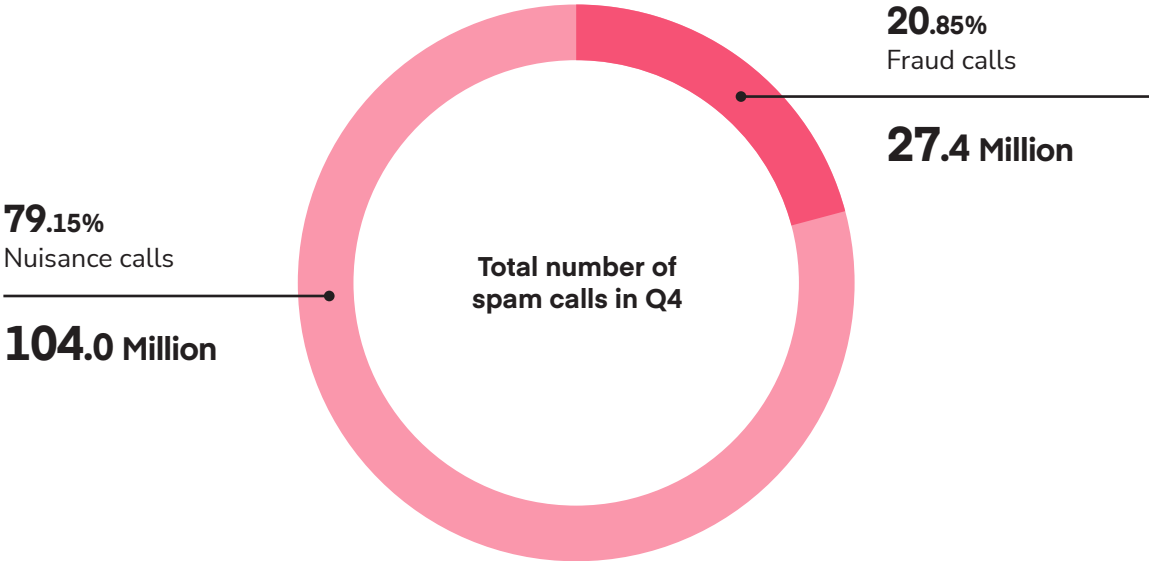
47%
Nuisance calls

12%
Fraud calls

41%
Other calls

20% of all spam calls in Q4 were labeled as fraud

20.85%
Fraud calls

27.4 Million

79.15%
Nuisance calls

104.0 Million

Total number of spam calls in Q4

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Source:
Samsung Smart Call users in Chile

Mexico

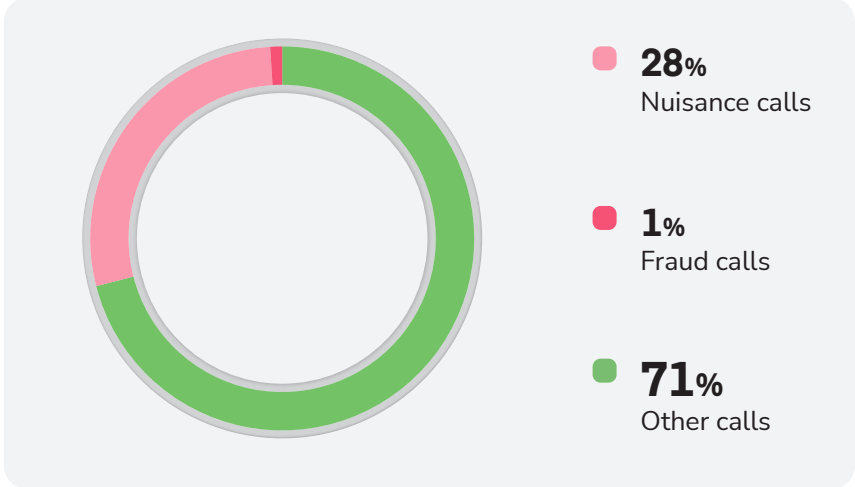**PERIOD**

Q4
Oct 2023 - Dec 2023

15 Calls/Month
Average spam calls per person

45%
Spam flag rate

- **26**%
  Nuisance calls
- **19**%
  Fraud calls
- **55**%
  Other calls

42% of all spam calls in Q4 were labeled as fraud

42.47%
Fraud calls

124.0 Million

57.53%
Nuisance calls

168.0 Million

Total number of spam calls in Q4

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Source:
Samsung Smart Call users in Mexico

Peru

PERIOD

Q4
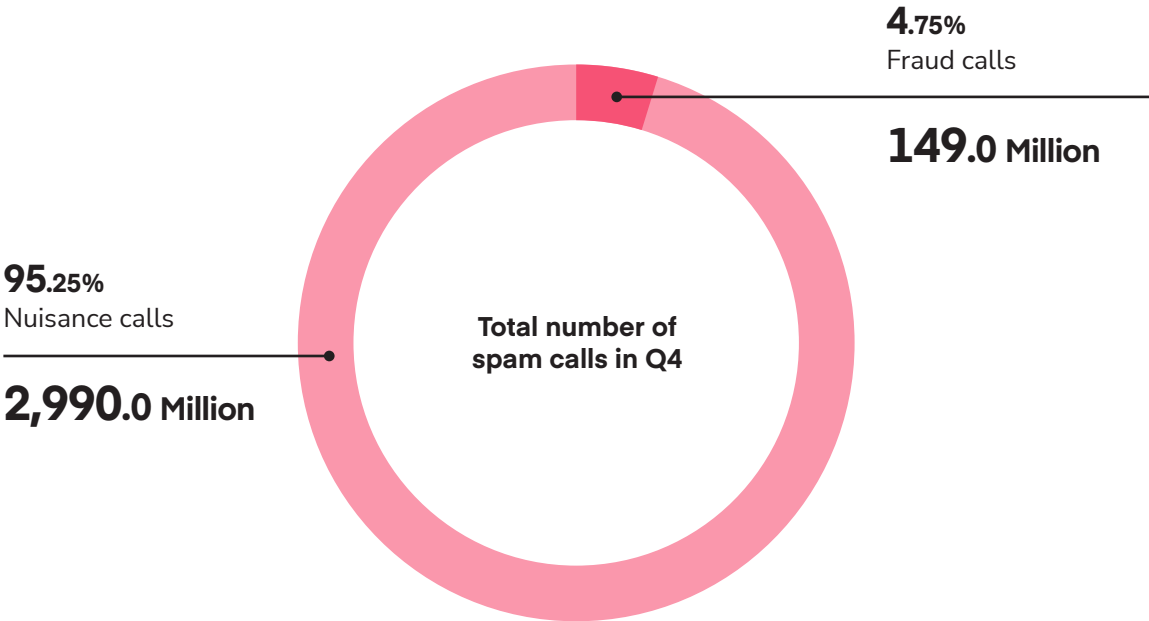**Oct 2023 - Dec 2023**

7 Calls/Month
Average spam calls
per person

19%
Spam flag rate

18%
Nuisance calls

1%
Fraud calls

81%
Other calls

41% of all spam calls in Q4 were labeled as fraud

41.41%
Fraud calls

2.1 Million

58.59%
Nuisance calls

3.0 Million

Total number of spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Peru

Puerto Rico

PERIOD

Q4
Oct 2023 - Dec 2023

4 Calls/Month
Average spam calls
per person

21%
Spam flag rate

12%
Nuisance calls

9%
Fraud calls

79%
Other calls

35% of all spam calls in Q4 were labeled as fraud

35.82%
Fraud calls

1.4 Million

64.18%
Nuisance calls

2.5 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Puerto Rico

United States
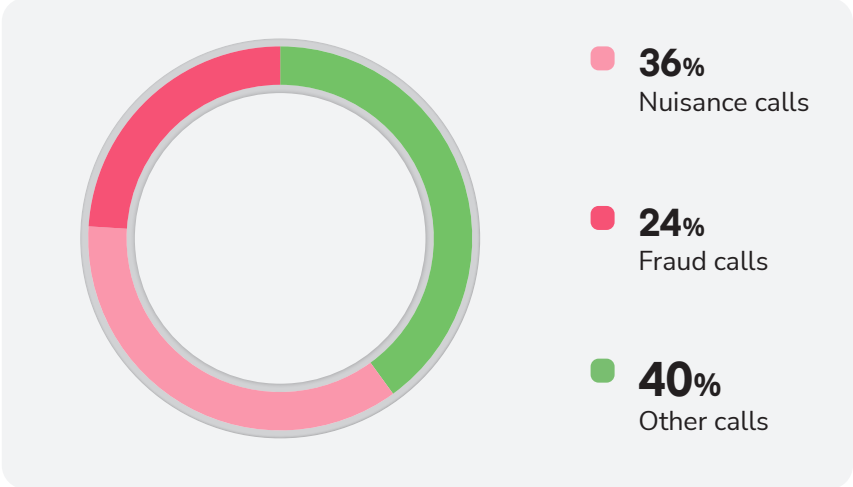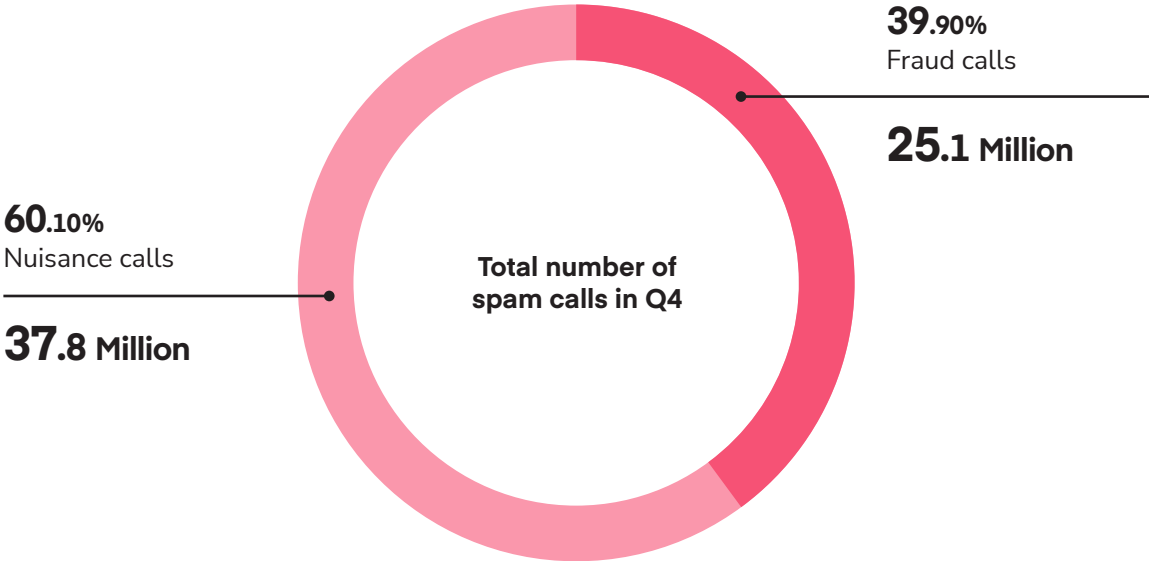
Q4
Oct 2023 - Dec 2023

15 Calls/Month
Average spam calls
per person

29%
Spam flag rate

● **28**%
Nuisance calls

● **1**%
Fraud calls

● **71**%
Other calls

4% of all spam calls in Q4 were labeled as fraud

4.75%
Fraud calls

149.0 Million

95.25%
Nuisance calls

2,990.0 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in United States

Australia
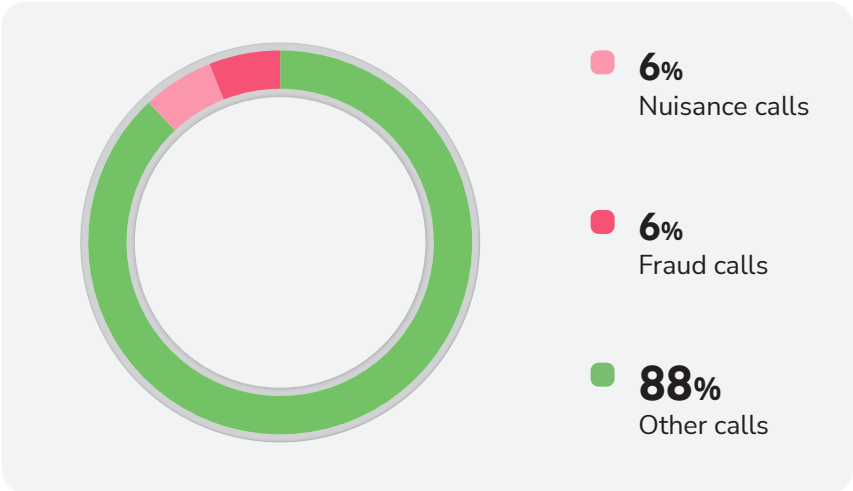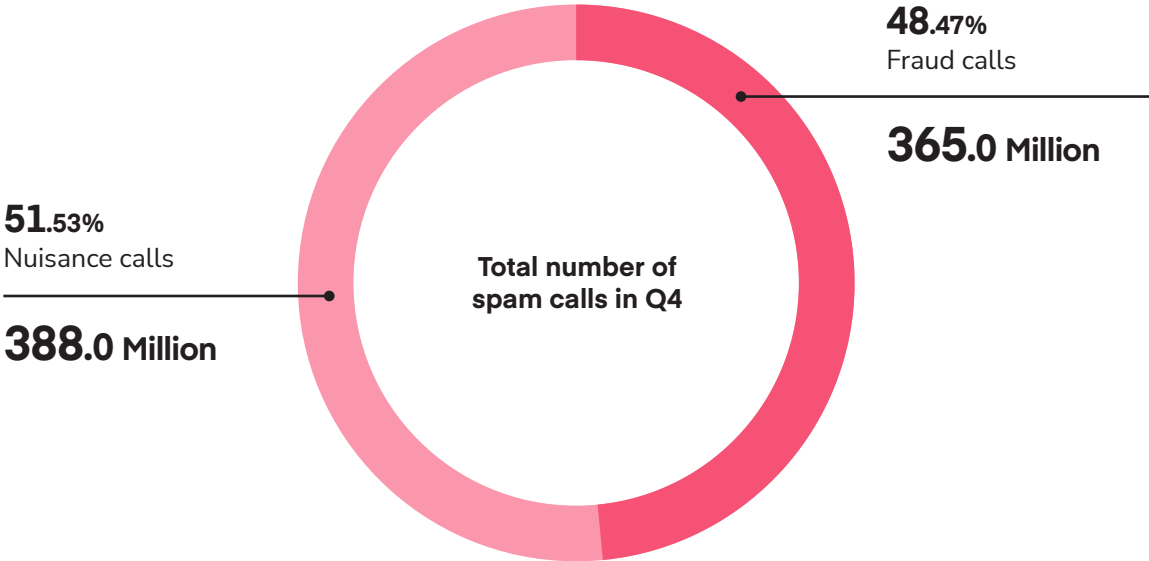
PERIOD

Q4
Oct 2023 - Dec 2023
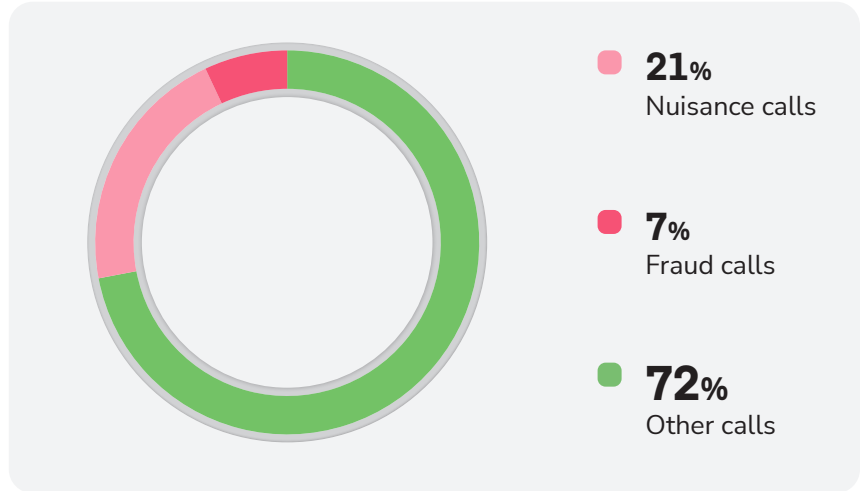
5 Calls/Month
Average spam calls
per person

28%
Spam flag rate

21%
Nuisance calls

7%
Fraud calls

72%
Other calls

25% of all spam calls in Q4 were labeled as fraud

25.81%
Fraud calls

12.0 Million

74.19%
Nuisance calls

34.5 Million

Total number of
spam calls in Q4
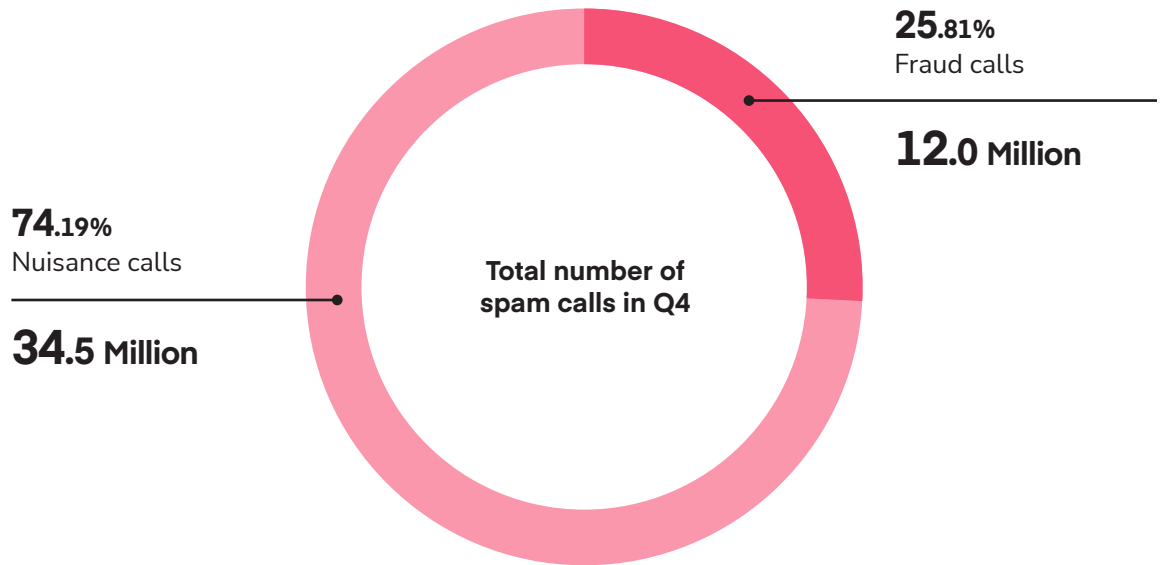
Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Australia

Hong Kong

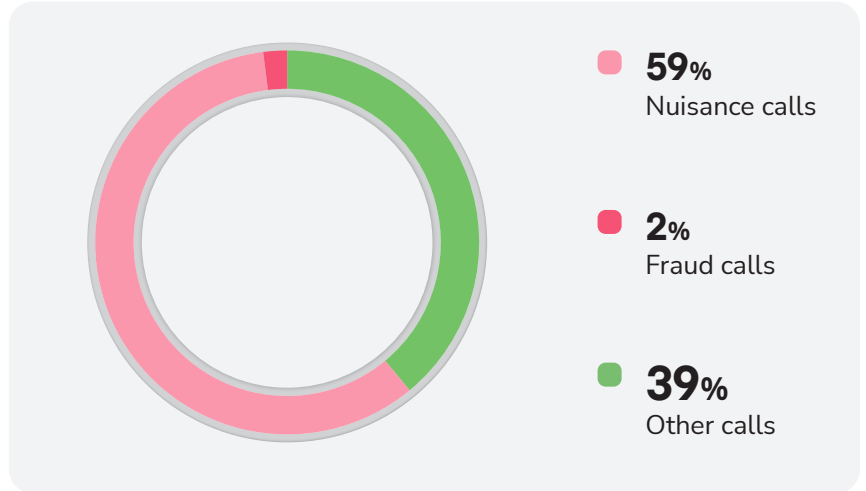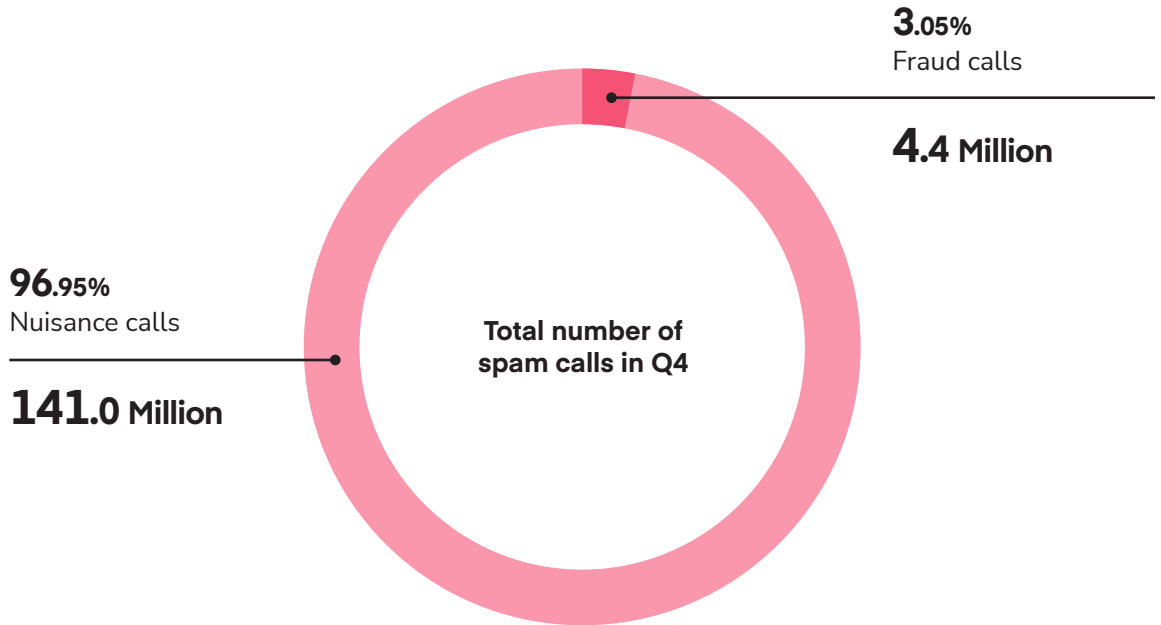**PERIOD**

Q4
Oct 2023 - Dec 2023

23 **Calls/Month**
Average spam calls
per person

60%
Spam flag rate

- **36**% Nuisance calls
- **24**% Fraud calls
- **40**% Other calls

39% of all spam calls in Q4 were labeled as fraud

39.90%
Fraud calls

25.1 Million

60.10%
Nuisance calls

37.8 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
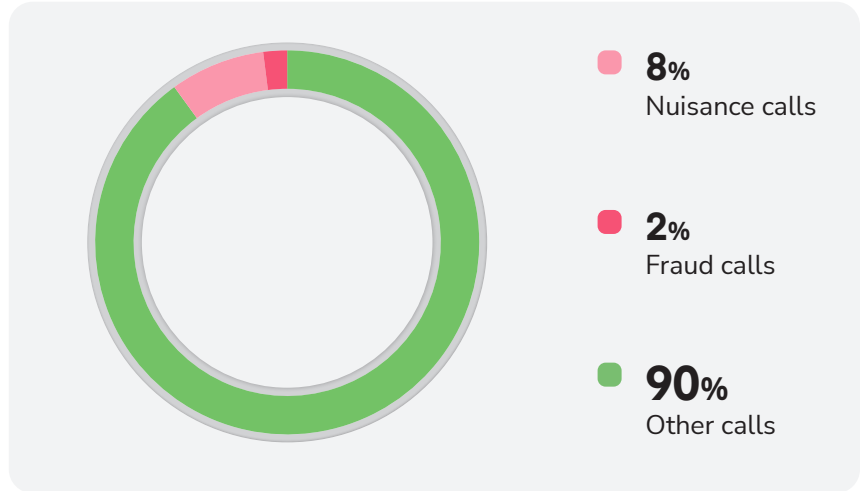Samsung Smart Call users
in Hong Kong

India

PERIOD

Q4
Oct 2023 - Dec 2023

10 Calls/Month
Average spam calls per person

12%
Spam flag rate

- **6**%
  Nuisance calls

- **6**%
  Fraud calls

- **88**%
  Other calls

48% of all spam calls in Q4 were labeled as fraud

48.47%
Fraud calls

365.0 Million

51.53%
Nuisance calls

388.0 Million

Total number of spam calls in Q4

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Source:
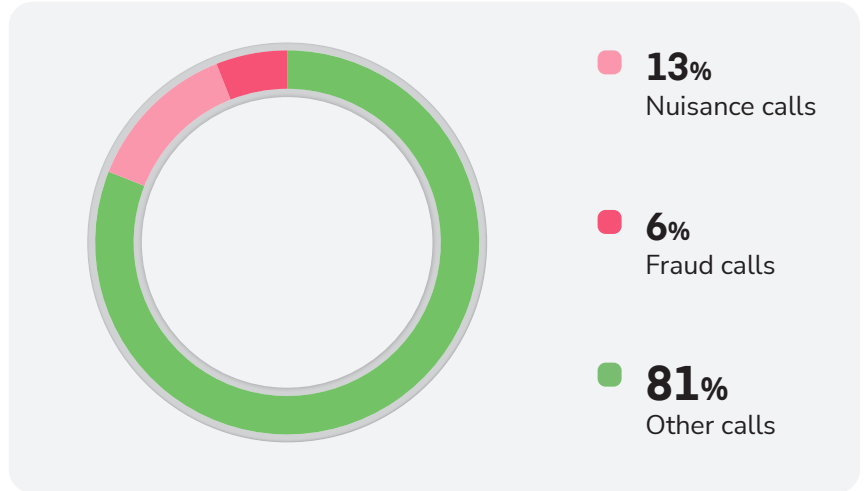Samsung Smart Call users in India

Indonesia

PERIOD

Q4
Oct 2023 - Dec 2023

10 Calls/Month
Average spam calls
per person

61%
Spam flag rate

59%
Nuisance calls

2%
Fraud calls

39%
Other calls

3% of all spam calls in Q4 were labeled as fraud

3.05%
Fraud calls

4.4 Million

96.95%
Nuisance calls

141.0 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Indonesia

Israel

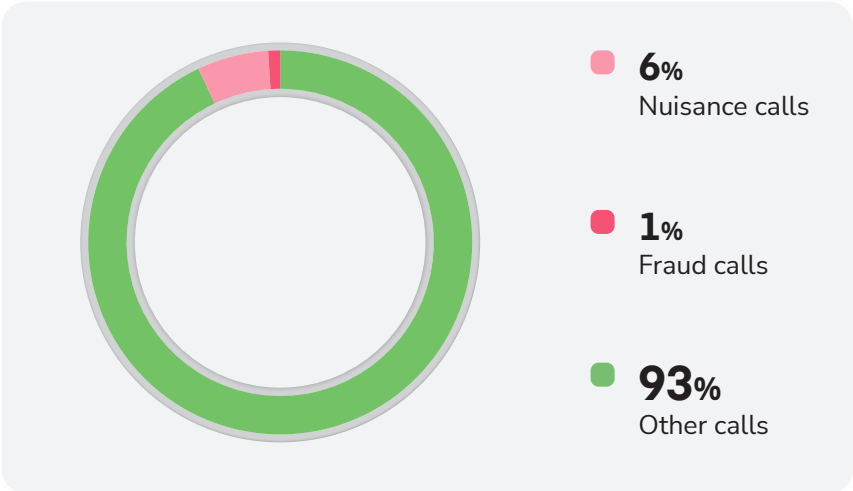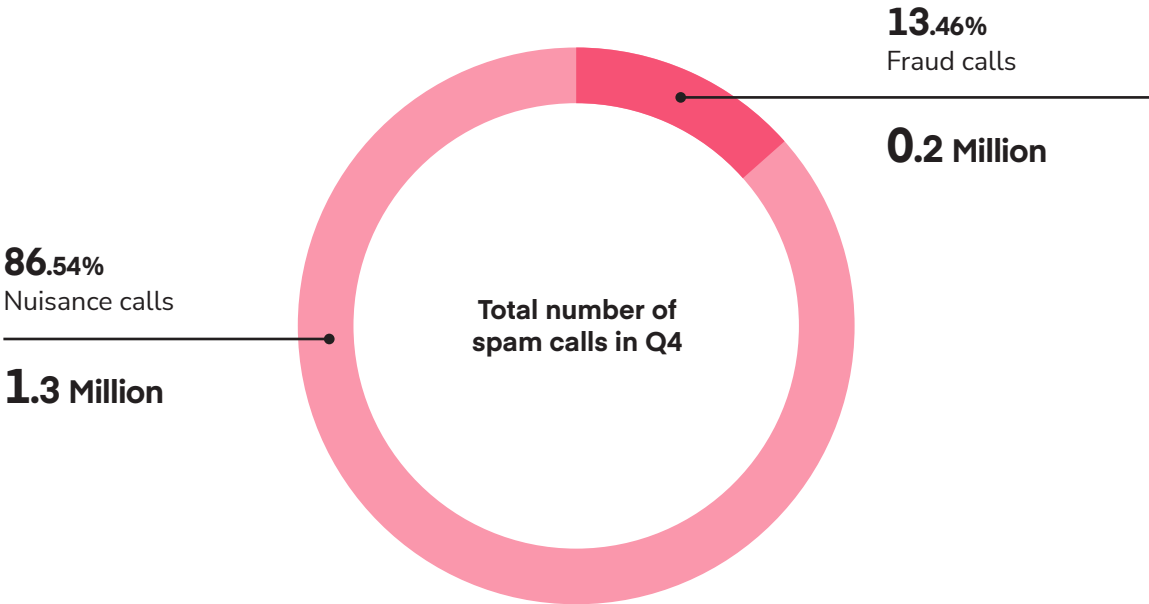**PERIOD**

Q4
Oct 2023 - Dec 2023

4 Calls/Month
Average spam calls
per person

10%
Spam flag rate

8%
Nuisance calls

2%
Fraud calls

90%
Other calls

17% of all spam calls in Q4 were labeled as fraud

17.31%
Fraud calls

2.2 Million

82.69%
Nuisance calls

10.7 Million

Total number of
spam calls in Q4
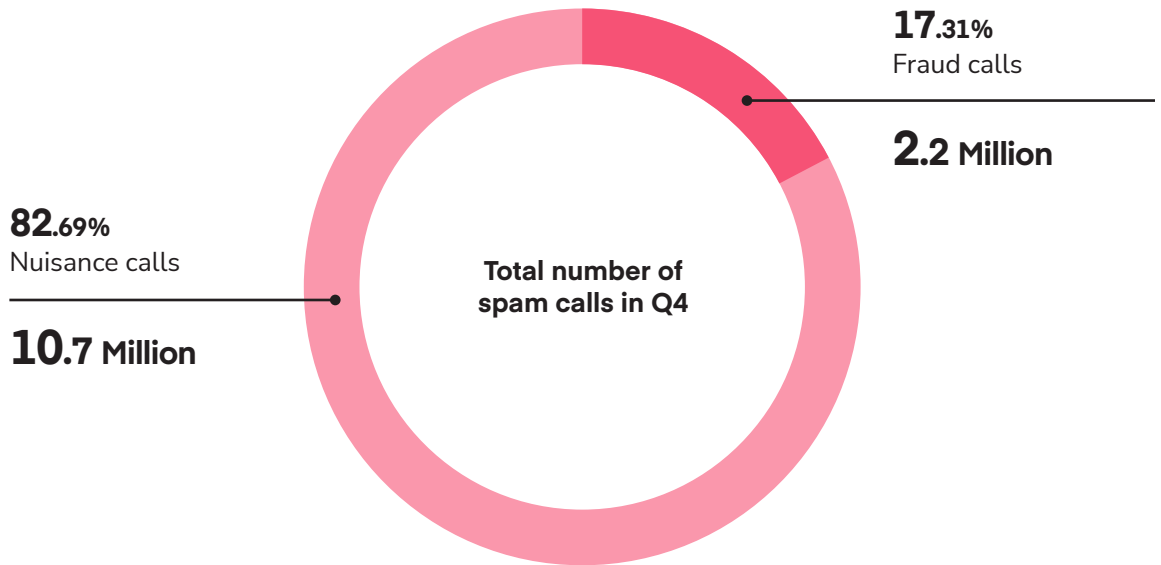
Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
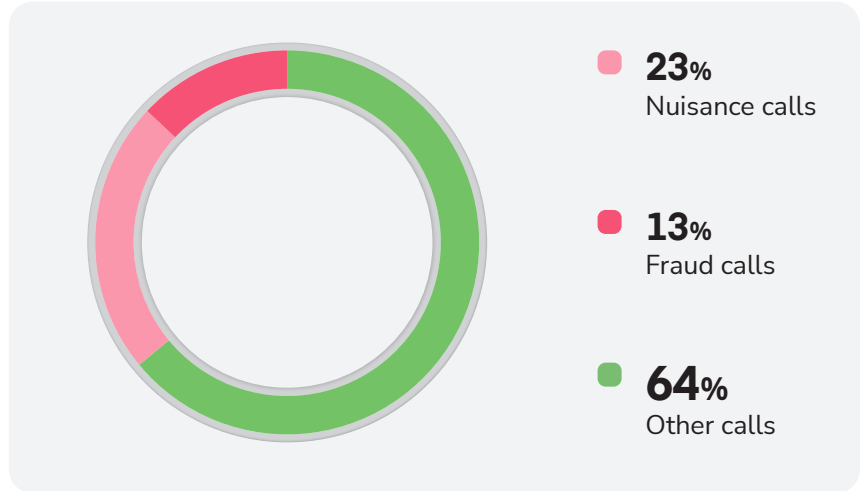Samsung Smart Call users
in Israel

Malaysia

PERIOD

Q4
Oct 2023 - Dec 2023

3 Calls/Month
Average spam calls
per person

19%
Spam flag rate

● **13**%
Nuisance calls

● **6**%
Fraud calls

● **81**%
Other calls

**32% of all spam calls in Q4 were
labeled as fraud**

32.78%
Fraud calls

3.5 Million

67.22%
Nuisance calls

7.2 Million

Total number of
spam calls in Q4
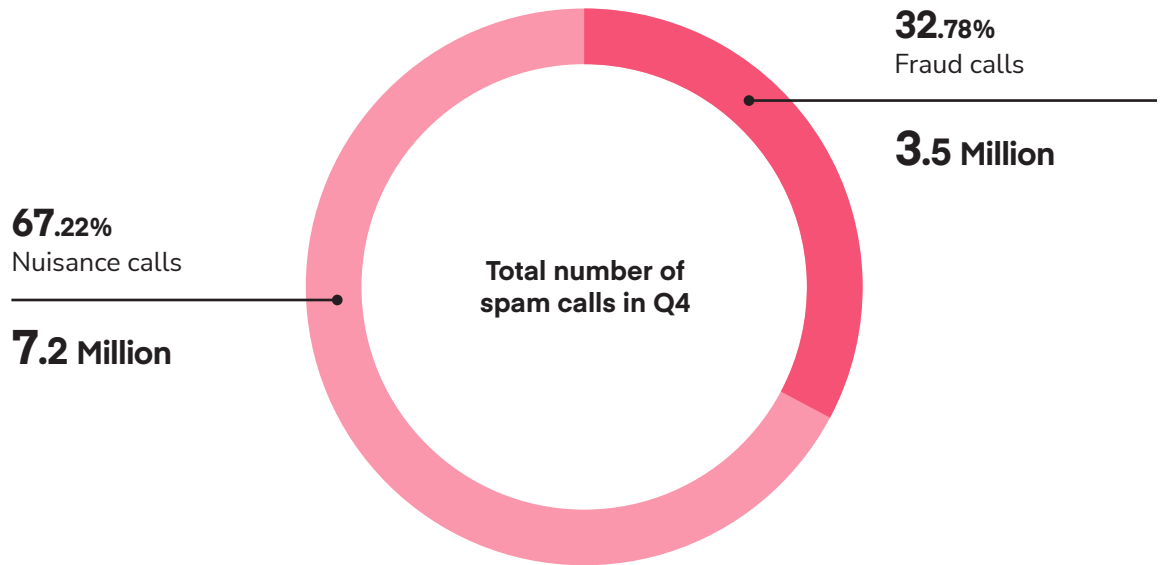
Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Malaysia

New Zealand

PERIOD

Q4
Oct 2023 - Dec 2023

1 Calls/Month
Average spam calls per person

7%
Spam flag rate

- **6**% Nuisance calls
- **1**% Fraud calls
- **93**% Other calls

13% of all spam calls in Q4 were labeled as fraud

13.46% Fraud calls

0.2 Million

86.54% Nuisance calls

1.3 Million

Total number of spam calls in Q4

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Source:
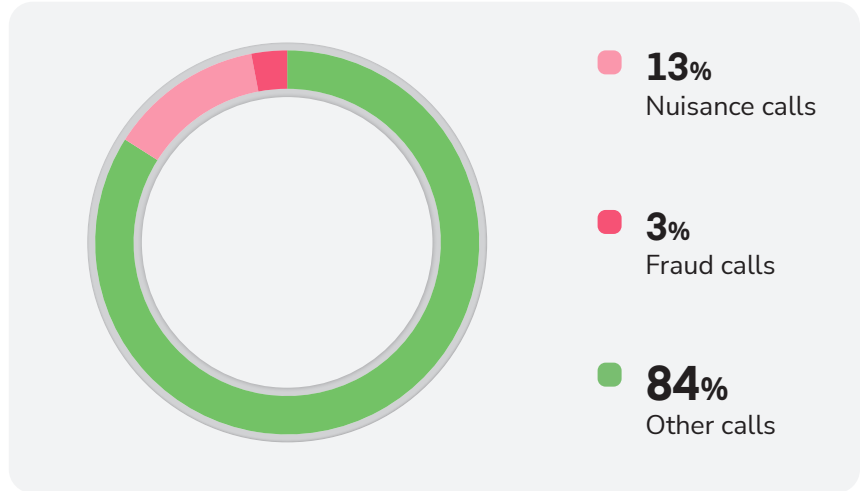Samsung Smart Call users in New Zealand

Philippines

PERIOD

Q4
Oct 2023 - Dec 2023

6 **Calls/Month**
Average spam calls
per person

36%
Spam flag rate
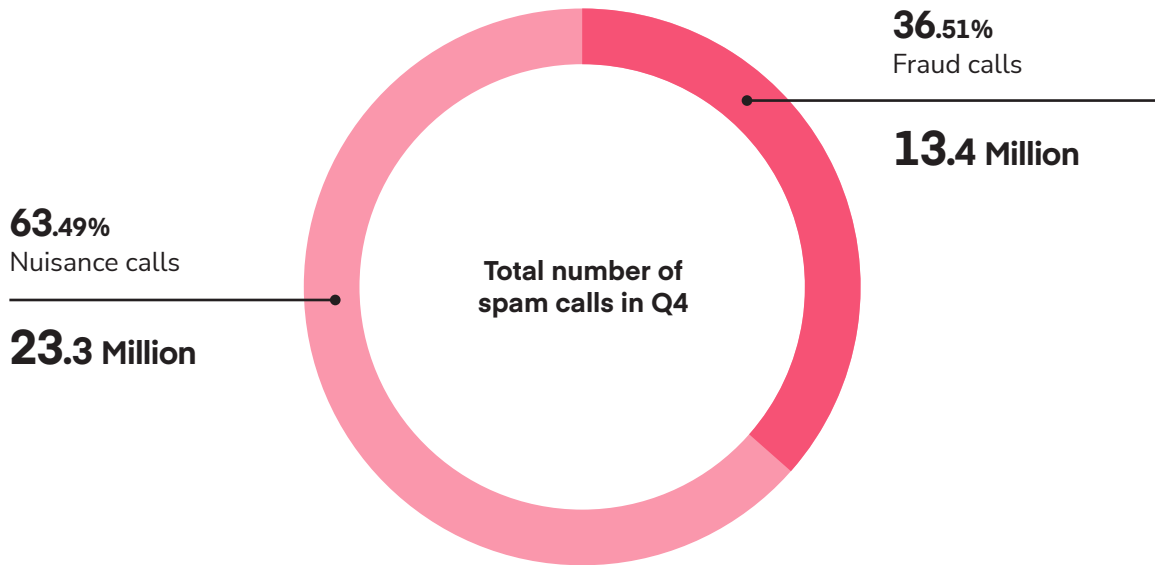
23%
Nuisance calls

13%
Fraud calls

64%
Other calls

**36% of all spam calls in Q4 were
labeled as fraud**

36.51%
Fraud calls

13.4 Million

63.49%
Nuisance calls

23.3 Million

**Total number of
spam calls in Q4**

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Philippines

ASIA/PACIFIC

Singapore

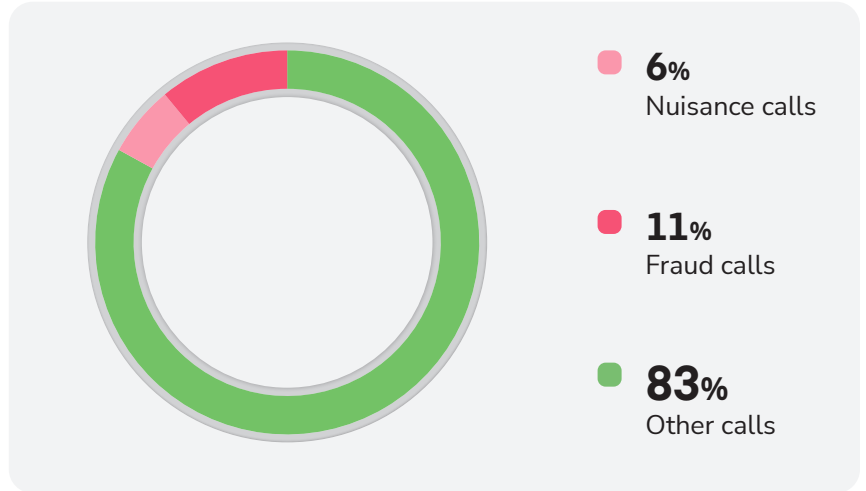**PERIOD**

Q4
Oct 2023 - Dec 2023

3 Calls/Month
Average spam calls
per person

27%
Spam flag rate
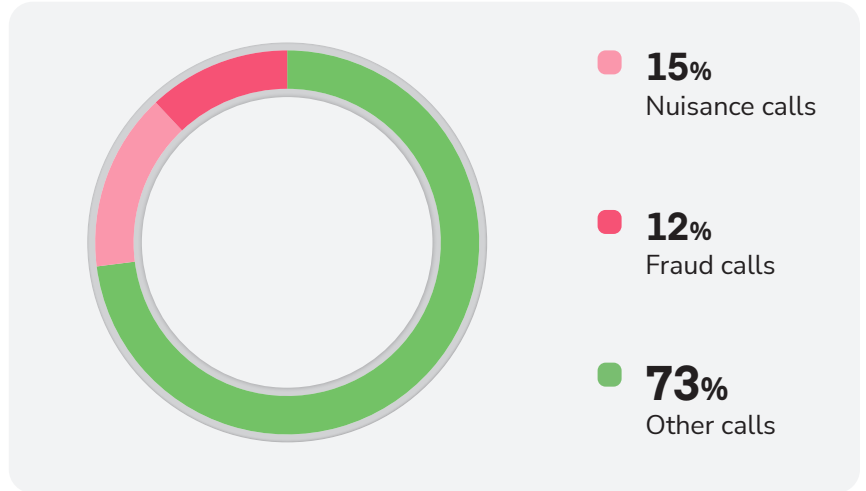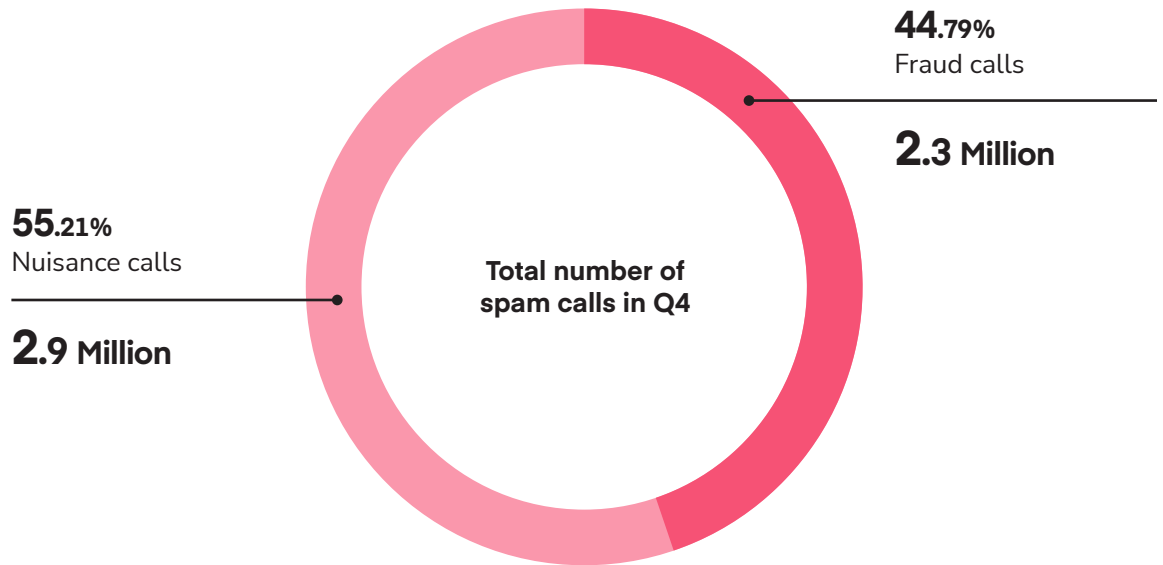
15%
Nuisance calls

12%
Fraud calls

73%
Other calls

44% of all spam calls in Q4 were labeled as fraud

44.79%
Fraud calls

2.3 Million

55.21%
Nuisance calls

2.9 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Singapore

ASIA/PACIFIC

Thailand

PERIOD

Q4
Oct 2023 - Dec 2023

4 Calls/Month
Average spam calls
per person

16%
Spam flag rate
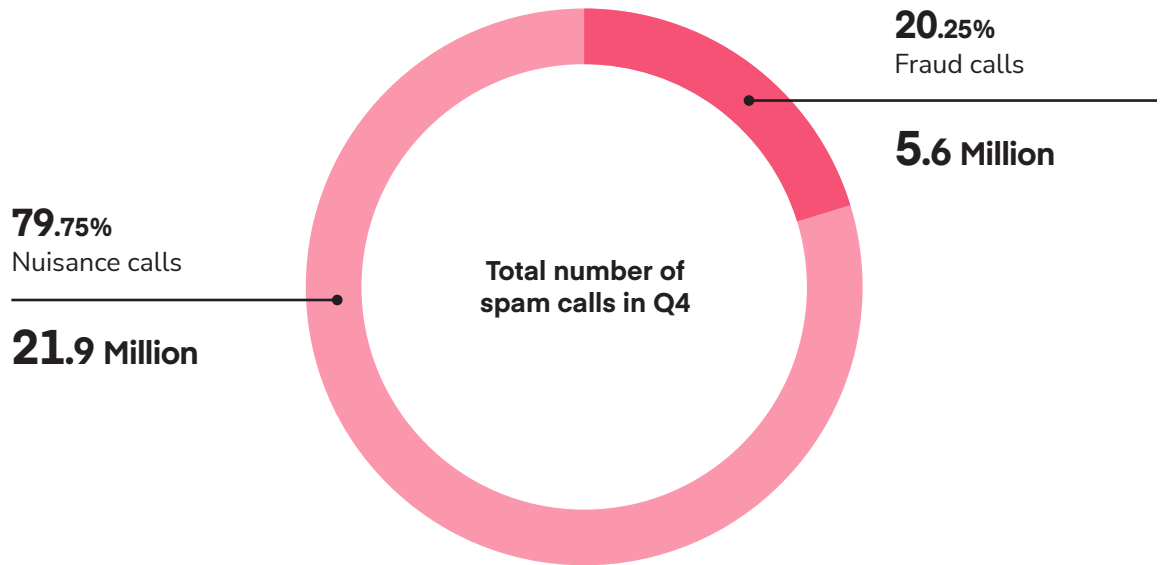
13%
Nuisance calls

3%
Fraud calls

84%
Other calls

**20% of all spam calls in Q4 were
labeled as fraud**

20.25%
Fraud calls

5.6 Million

79.75%
Nuisance calls

21.9 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
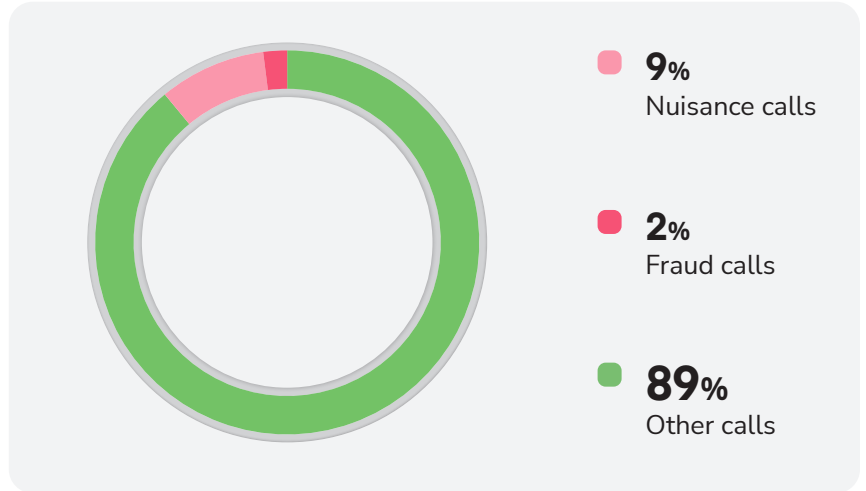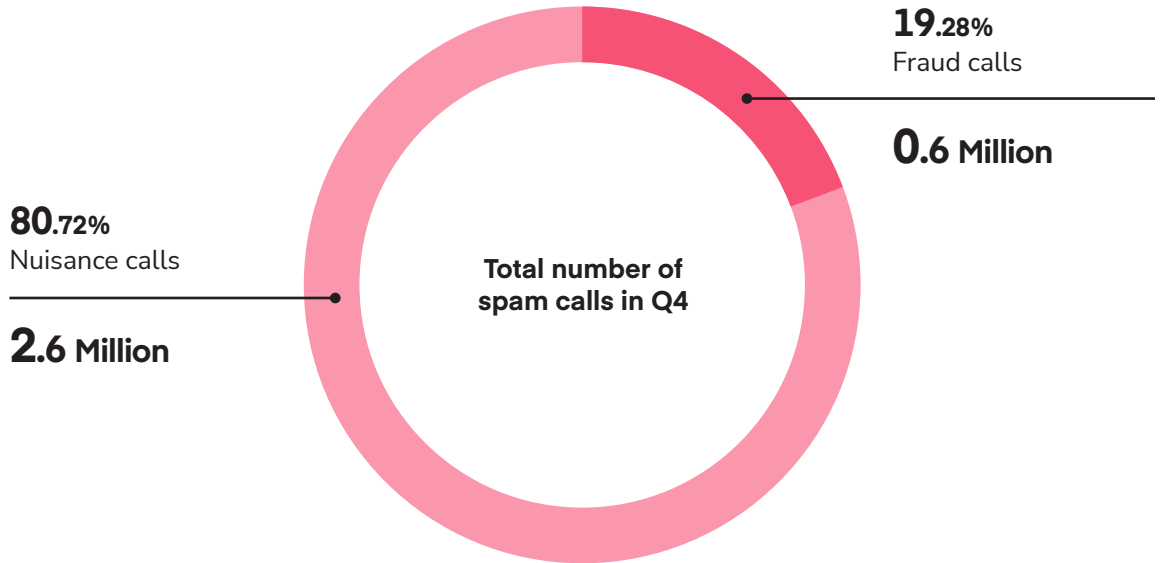address book.

Source:
Samsung Smart Call users
in Thailand

Turkey

PERIOD

Q4
Oct 2023 - Dec 2023

4 Calls/Month
Average spam calls
per person

17%
Spam flag rate

6%
Nuisance calls
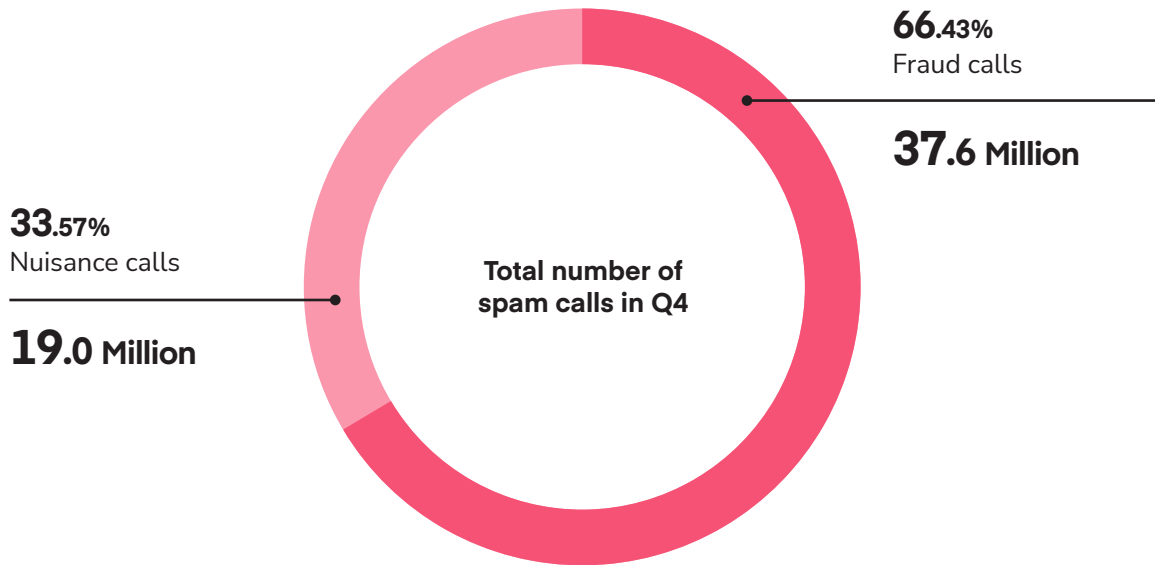
11%
Fraud calls

83%
Other calls

66% of all spam calls in Q4 were labeled as fraud

66.43%
Fraud calls

37.6 Million

33.57%
Nuisance calls

19.0 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
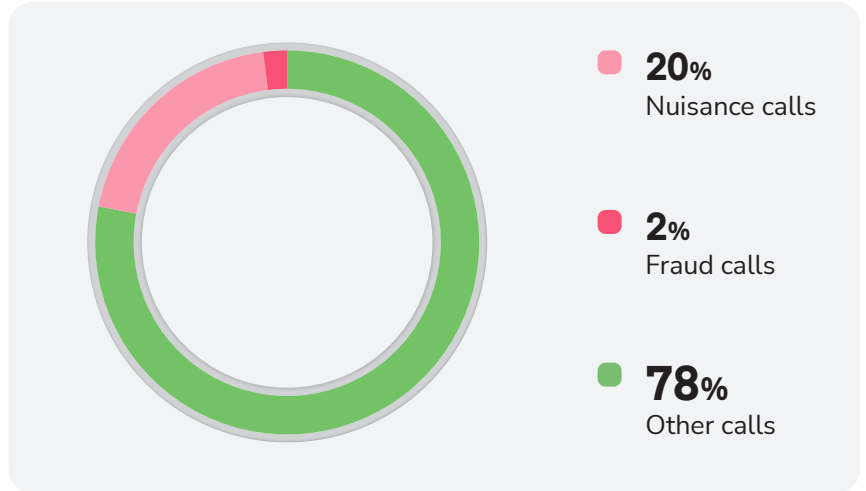in Turkey
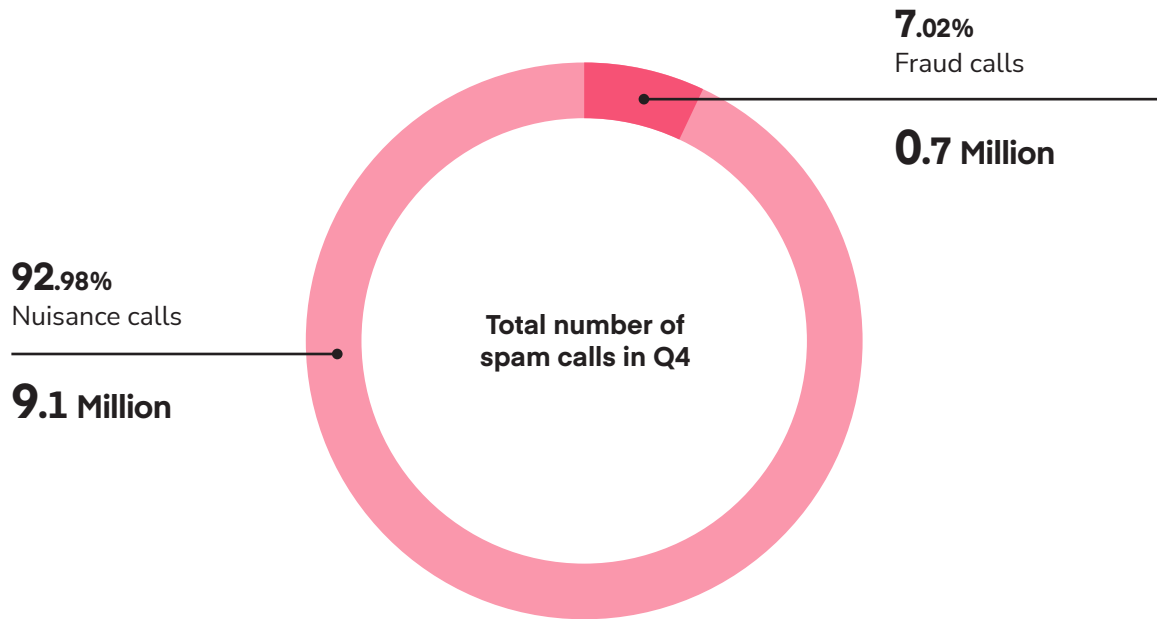
EUROPE

Austria

PERIOD

Q4
Oct 2023 - Dec 2023

1 Calls/Month
Average spam calls
per person

11%
Spam flag rate

9%
Nuisance calls

2%
Fraud calls

89%
Other calls

19% of all spam calls in Q4 were labeled as fraud

19.28%
Fraud calls

0.6 Million

80.72%
Nuisance calls

2.6 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
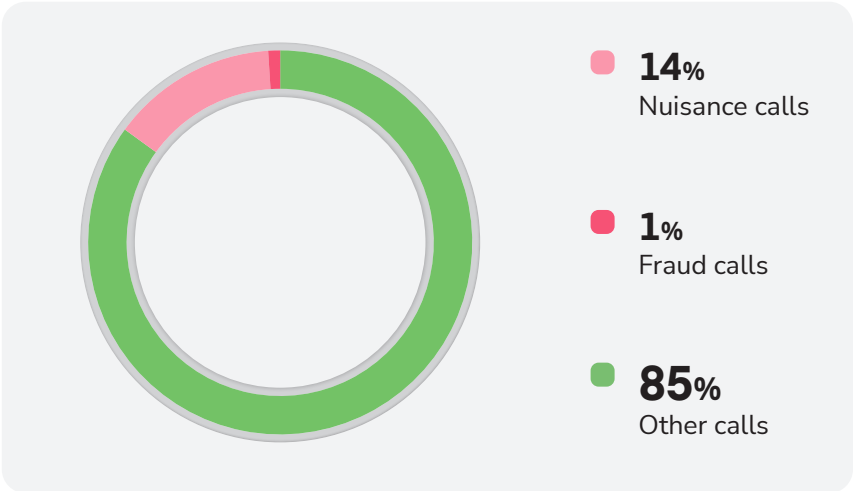address book.

Source:
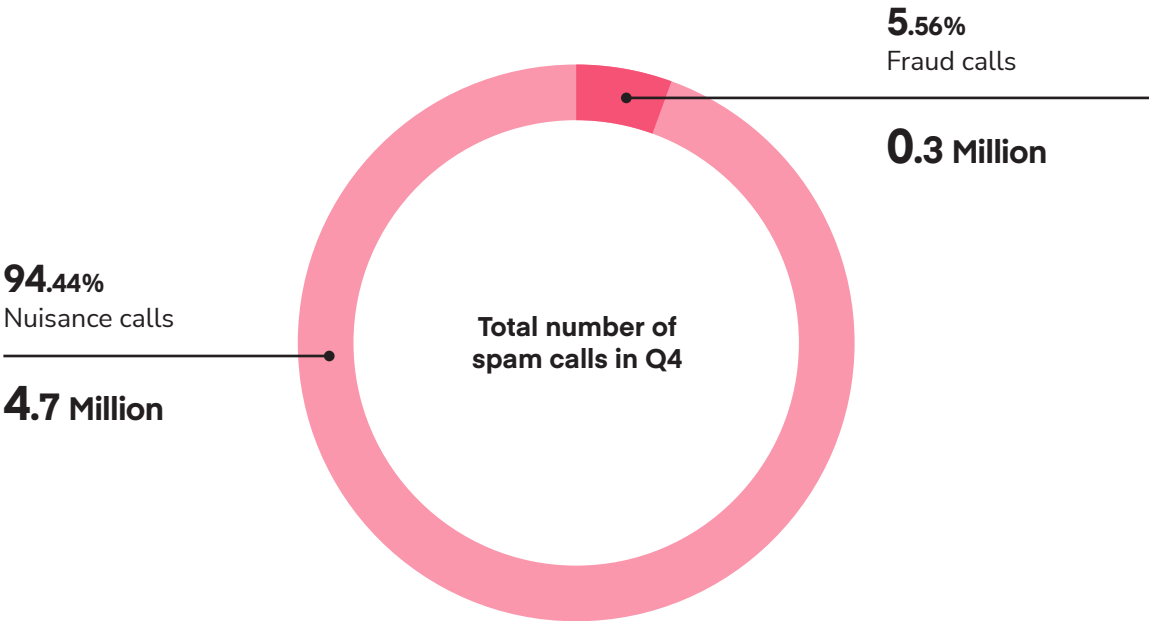Samsung Smart Call users
in Austria

Belgium

PERIOD

Q4
Oct 2023 - Dec 2023

3 Calls/Month
Average spam calls per person

22%
Spam flag rate

- **20**% Nuisance calls
- **2**% Fraud calls
- **78**% Other calls

7% of all spam calls in Q4 were labeled as fraud

7.02%
Fraud calls

0.7 Million

92.98%
Nuisance calls

9.1 Million

Total number of spam calls in Q4

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.

Source:
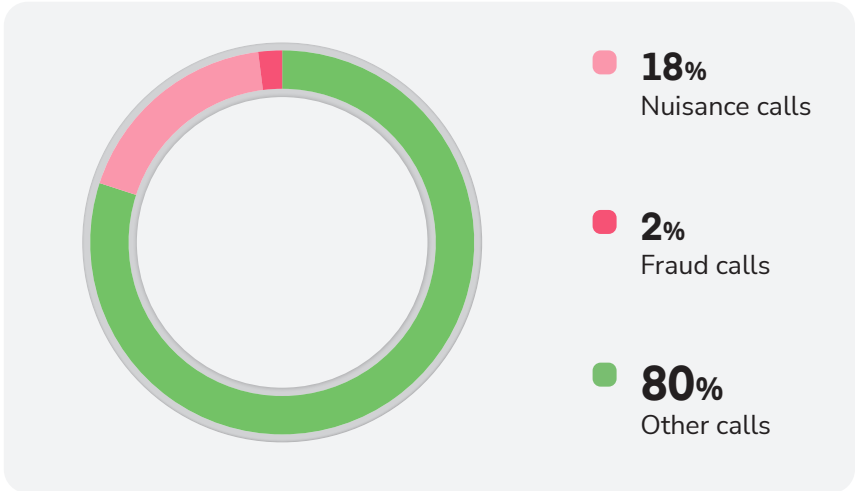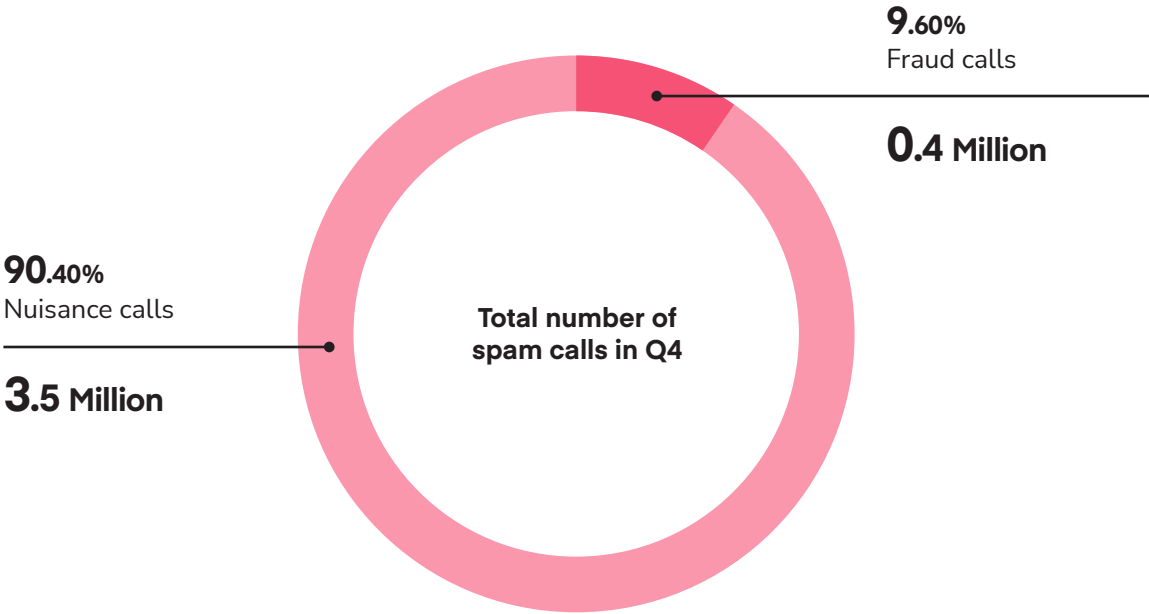Samsung Smart Call users in Belgium

Czech Republic

PERIOD

Q4
Oct 2023 - Dec 2023

2 Calls/Month
Average spam calls
per person

15%
Spam flag rate

14%
Nuisance calls

1%
Fraud calls

85%
Other calls

5% of all spam calls in Q4 were labeled as fraud

5.56%
Fraud calls

0.3 Million

94.44%
Nuisance calls

4.7 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
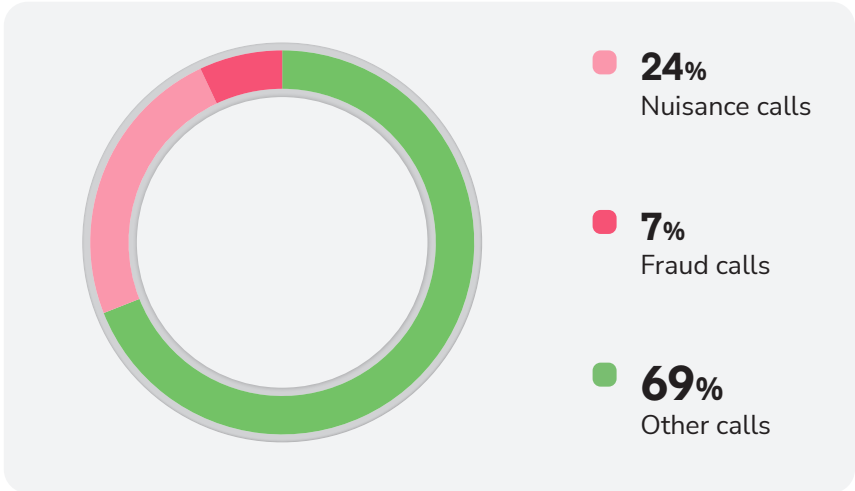address book.

Source:
Samsung Smart Call users
in Czech Republic

Denmark

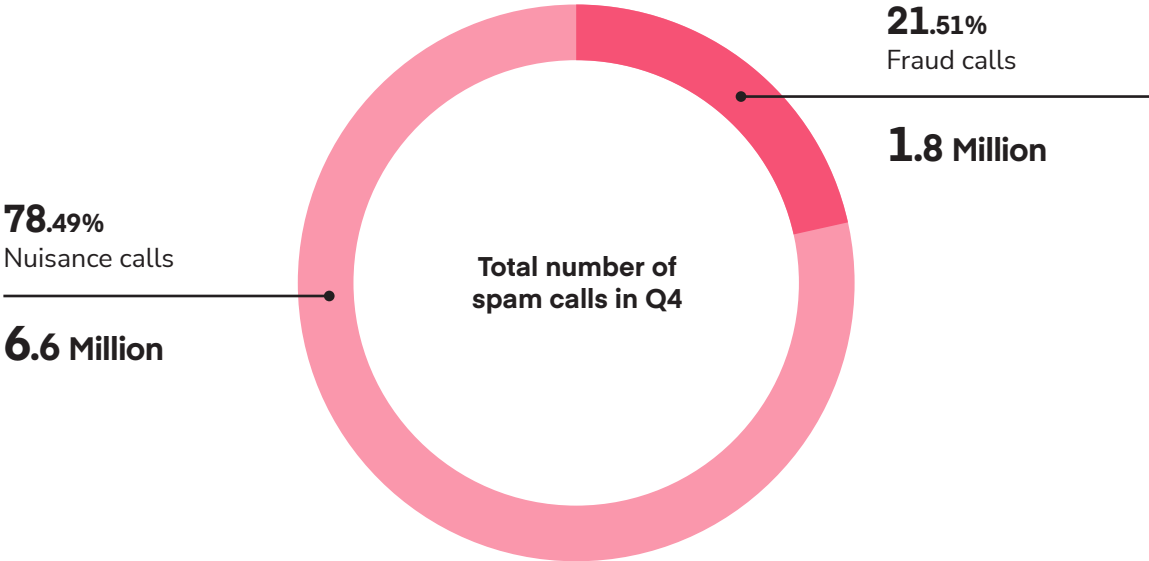**PERIOD**

Q4
Oct 2023 - Dec 2023

3 **Calls/Month**
Average spam calls
per person

20%
Spam flag rate

- **18%** Nuisance calls
- **2%** Fraud calls
- **80%** Other calls

9% of all spam calls in Q4 were labeled as fraud

9.60%
Fraud calls

0.4 Million

90.40%
Nuisance calls

3.5 Million

**Total number of
spam calls in Q4**

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Denmark

Finland

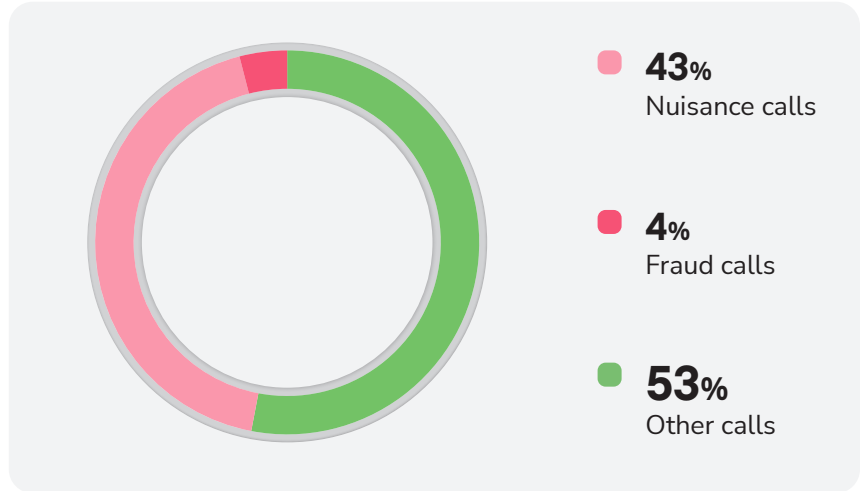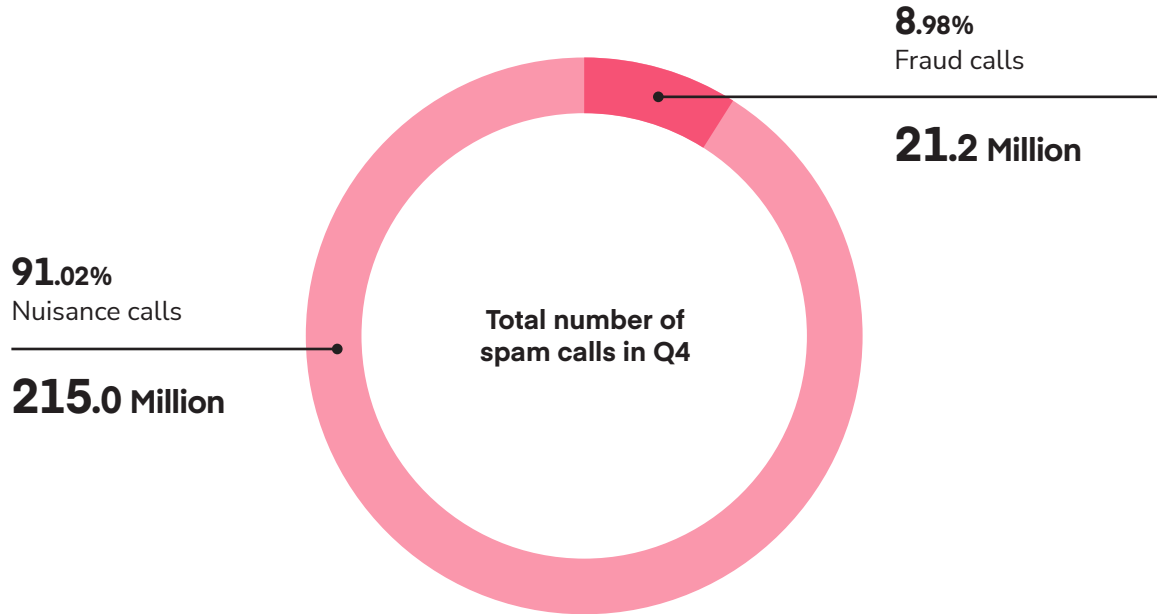**PERIOD**

Q4
Oct 2023 - Dec 2023

4 **Calls/Month**
Average spam calls
per person

31%
Spam flag rate

● **24**%
Nuisance calls

● **7**%
Fraud calls

● **69**%
Other calls

21% of all spam calls in Q4 were labeled as fraud

78.49%
Nuisance calls

6.6 Million

Total number of
spam calls in Q4

21.51%
Fraud calls

1.8 Million

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.
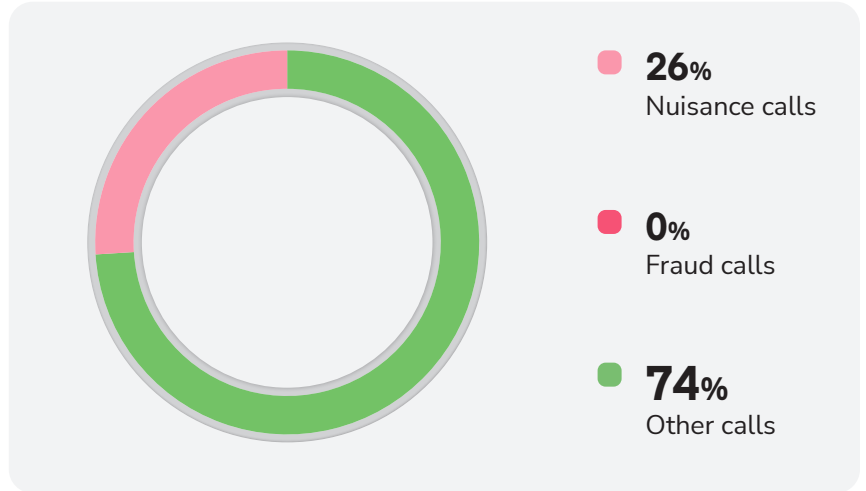
Source:
Samsung Smart Call users
in Finland

EUROPE

France

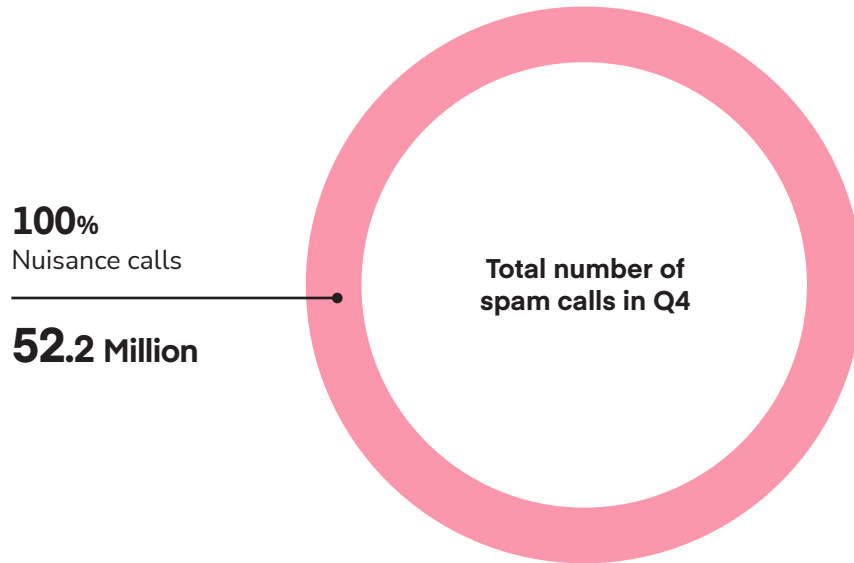**PERIOD**

Q4
Oct 2023 - Dec 2023

10 Calls/Month
Average spam calls
per person

47%
Spam flag rate

43%
Nuisance calls

4%
Fraud calls

53%
Other calls

**8% of all spam calls in Q4 were
labeled as fraud**

8.98%
Fraud calls

21.2 Million

91.02%
Nuisance calls

215.0 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
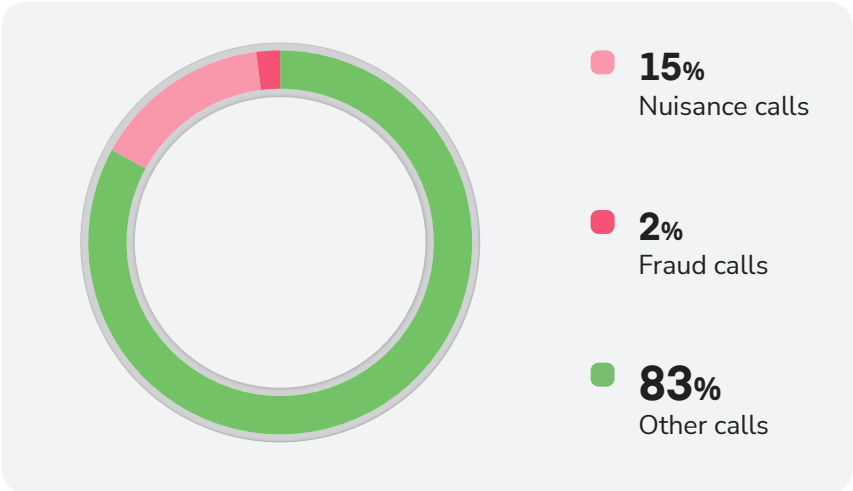address book.

Source:
Samsung Smart Call users
in France

Germany

PERIOD

Q4
Oct 2023 - Dec 2023

2 Calls/Month
Average spam calls
per person

26%
Spam flag rate

● **26**%
Nuisance calls

● **0**%
Fraud calls

● **74**%
Other calls

0% of all spam calls in Q4 were labeled as fraud

100%
Nuisance calls

52.2 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
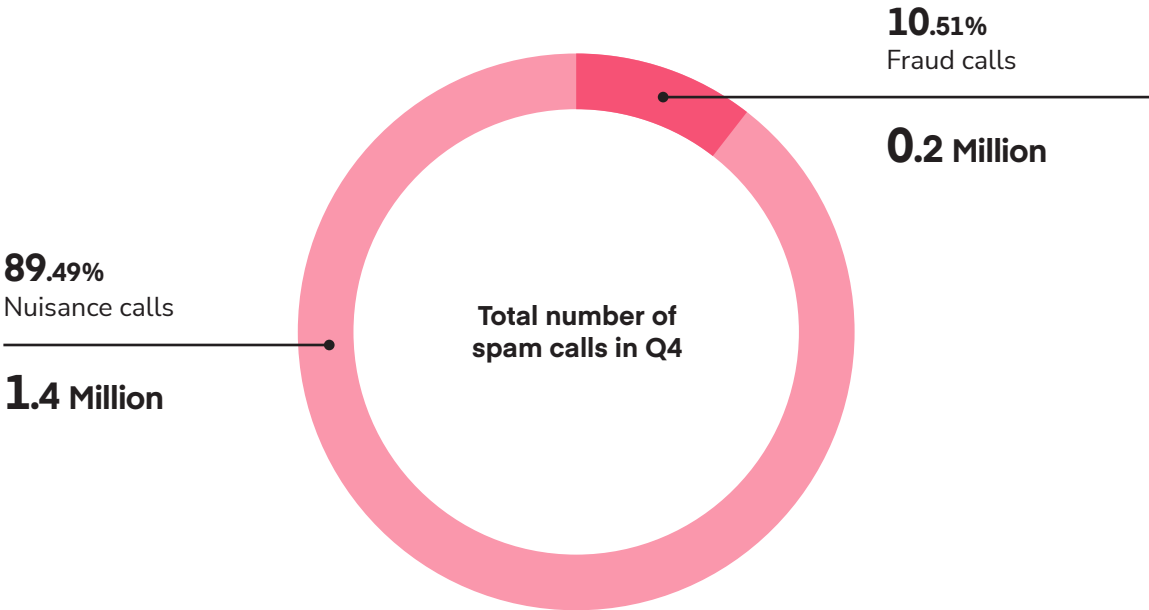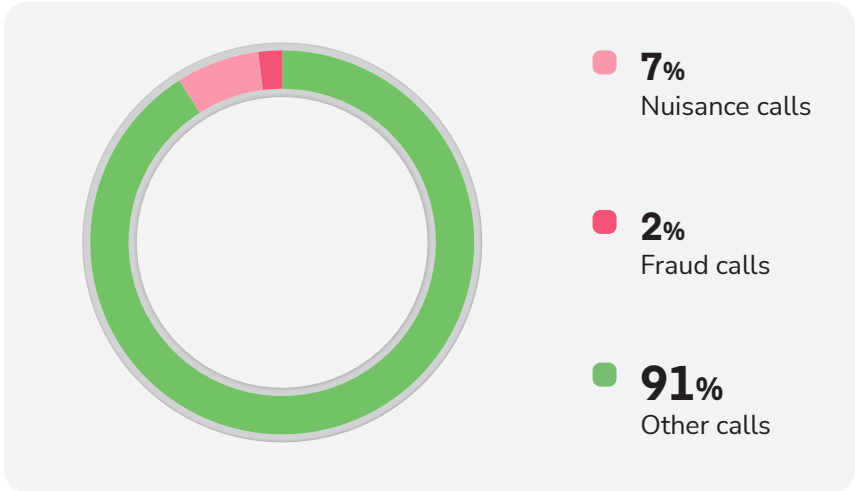Samsung Smart Call users
in Germany

Greece

PERIOD

Q4
Oct 2023 - Dec 2023

4 Calls/Month
Average spam calls
per person

17%
Spam flag rate

● **15**%
Nuisance calls

● **2**%
Fraud calls

● **83**%
Other calls

10% of all spam calls in Q4 were labeled as fraud

10.51%
Fraud calls

0.2 Million

89.49%
Nuisance calls

1.4 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
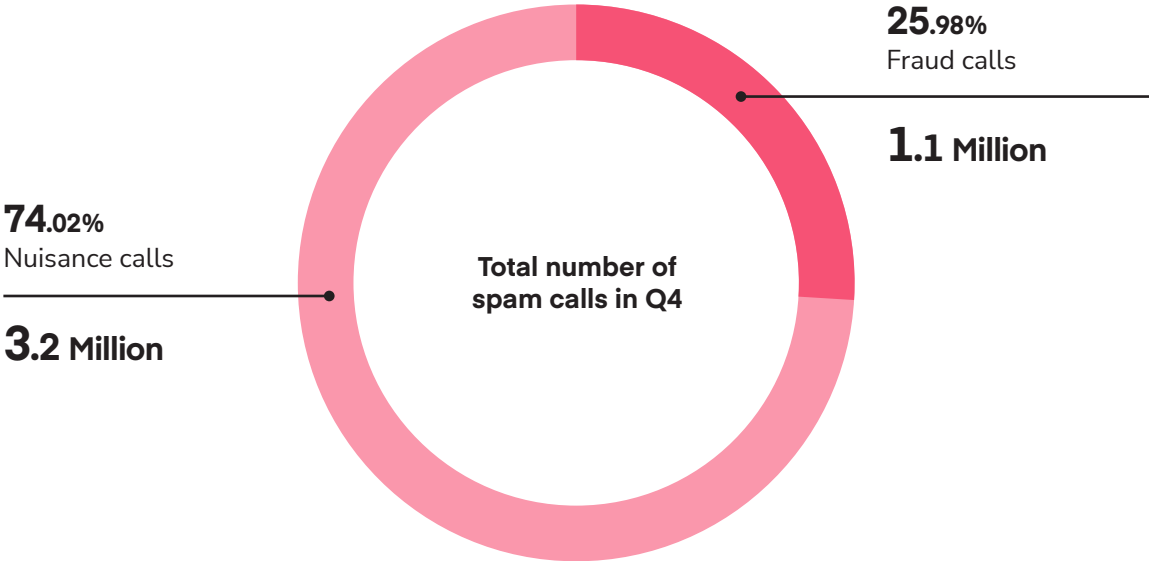in Greece

EUROPE

Hungary

PERIOD

Q4
Oct 2023 - Dec 2023

1 Calls/Month
Average spam calls
per person

9%
Spam flag rate

7%
Nuisance calls

2%
Fraud calls

91%
Other calls

**25% of all spam calls in Q4 were
labeled as fraud**

25.98%
Fraud calls

1.1 Million

74.02%
Nuisance calls

3.2 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.
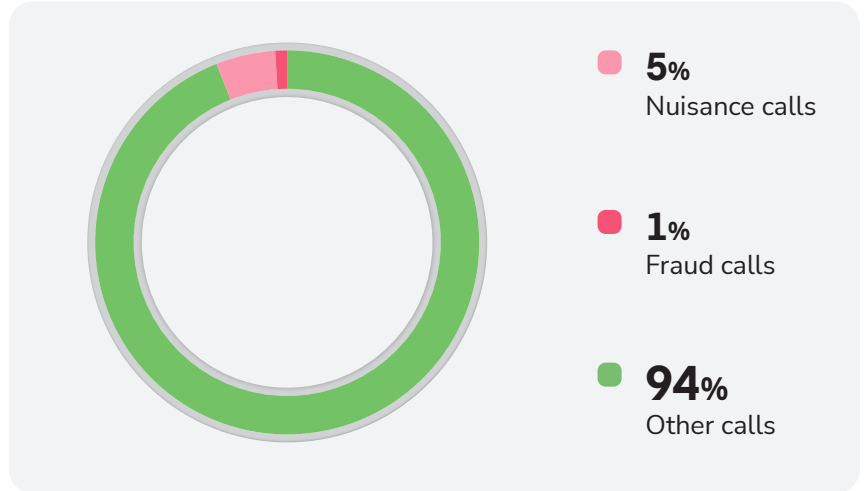
Source:
Samsung Smart Call users
in Hungary

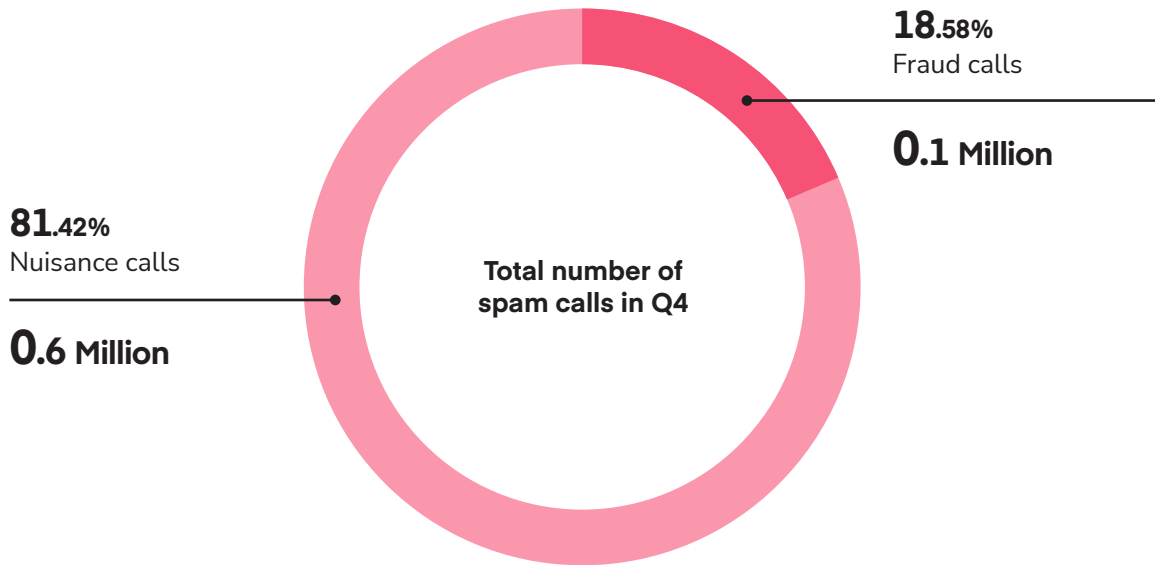# Ireland

hiya

PERIOD

Q4
Oct 2023 - Dec 2023

1 Calls/Month
Average spam calls
per person

6%
Spam flag rate

5%
Nuisance calls

1%
Fraud calls

94%
Other calls

**18% of all spam calls in Q4 were
labeled as fraud**

18.58%
Fraud calls

0.1 Million

81.42%
Nuisance calls

0.6 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

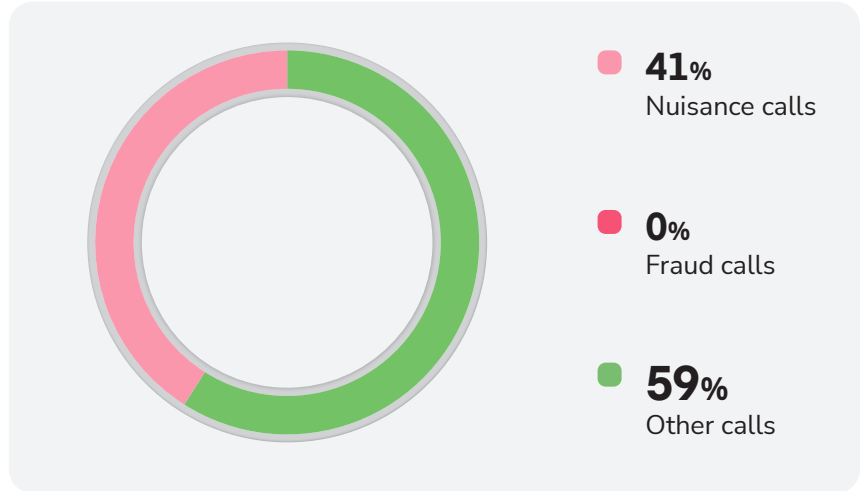Source:
Samsung Smart Call users
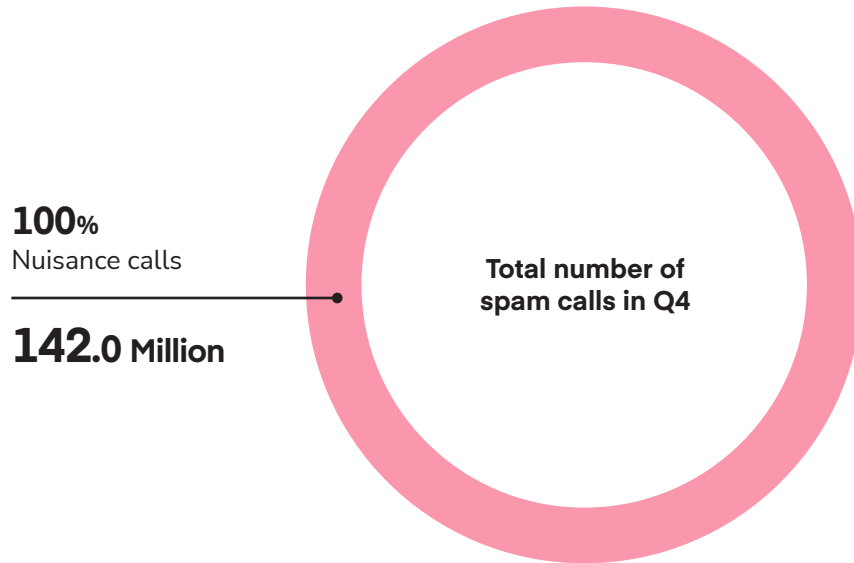in Ireland

Italy

PERIOD

Q4
Oct 2023 - Dec 2023

8 Calls/Month
Average spam calls per person

41%
Spam flag rate

● **41**%
Nuisance calls

● **0**%
Fraud calls

● **59**%
Other calls

0% of all spam calls in Q4 were labeled as fraud

100%
Nuisance calls

142.0 Million

Total number of spam calls in Q4

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.
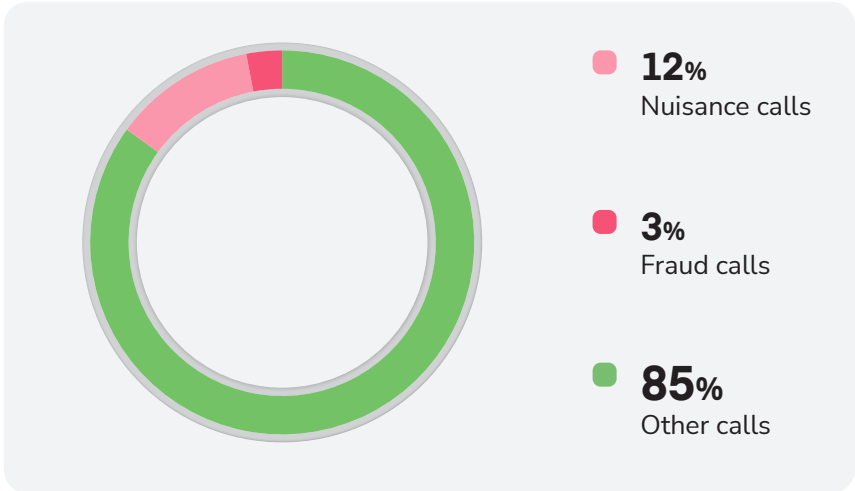
Source:
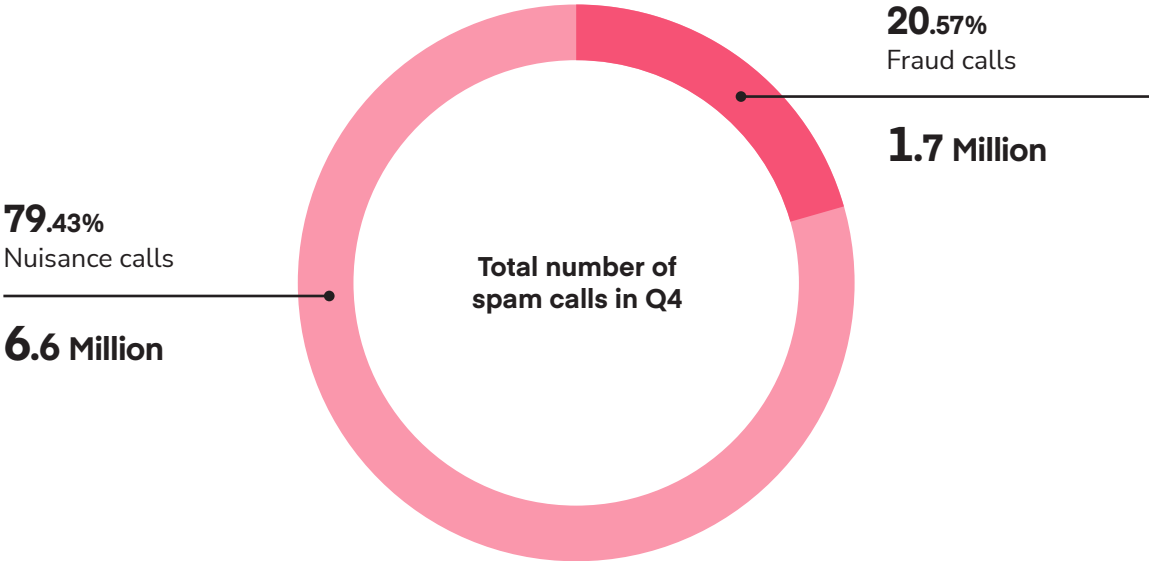Samsung Smart Call users in Italy

Netherlands

PERIOD

Q4
Oct 2023 - Dec 2023

1 Calls/Month
Average spam calls per person

15%
Spam flag rate

12%
Nuisance calls

3%
Fraud calls

85%
Other calls

20% of all spam calls in Q4 were labeled as fraud

20.57%
Fraud calls

1.7 Million

79.43%
Nuisance calls

6.6 Million

Total number of spam calls in Q4

Spam ratios represent the number of unwanted calls from "non-contacts," which are calls placed from numbers that are not in an individual's local address book.
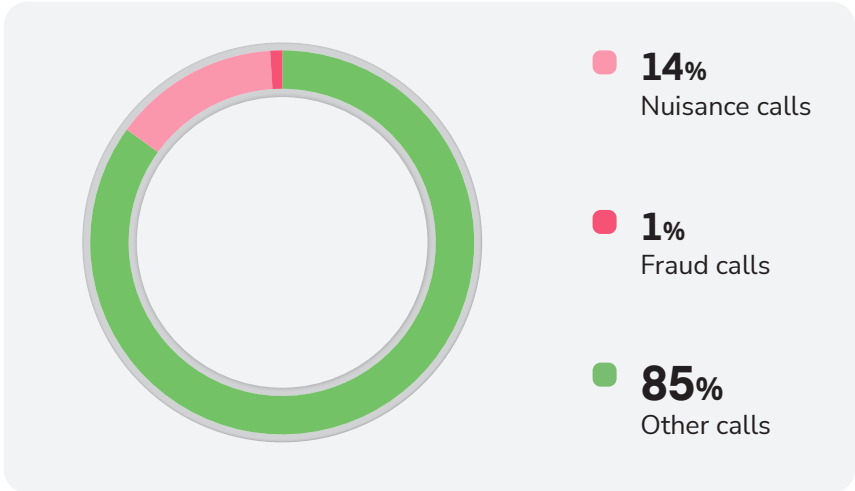
Source:
Samsung Smart Call users in Netherlands
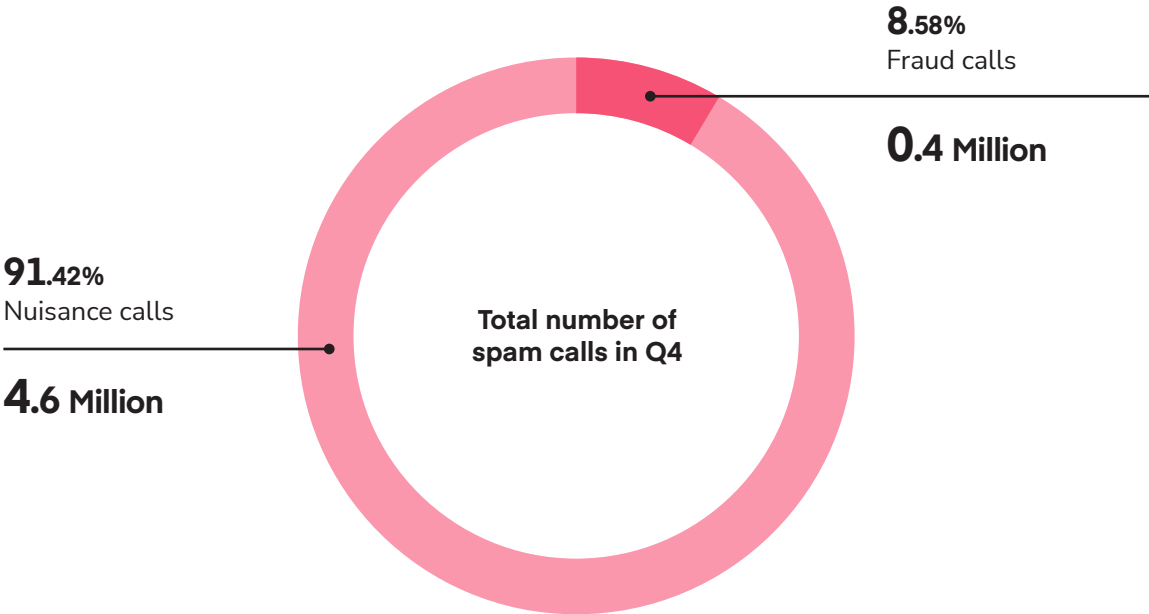
EUROPE

Norway

PERIOD

Q4
Oct 2023 - Dec 2023

2 Calls/Month
Average spam calls
per person

15%
Spam flag rate

● **14**%
Nuisance calls

● **1**%
Fraud calls

● **85**%
Other calls

8% of all spam calls in Q4 were labeled as fraud

8.58%
Fraud calls

0.4 Million

91.42%
Nuisance calls

4.6 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

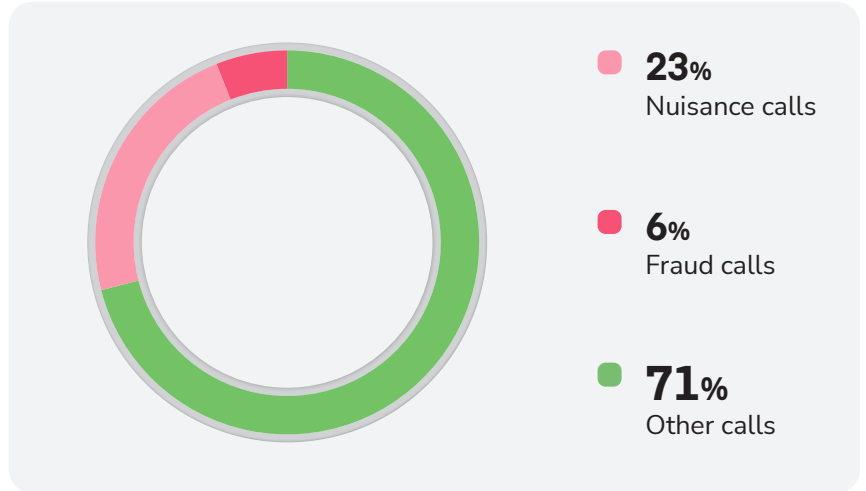Source:
Samsung Smart Call users
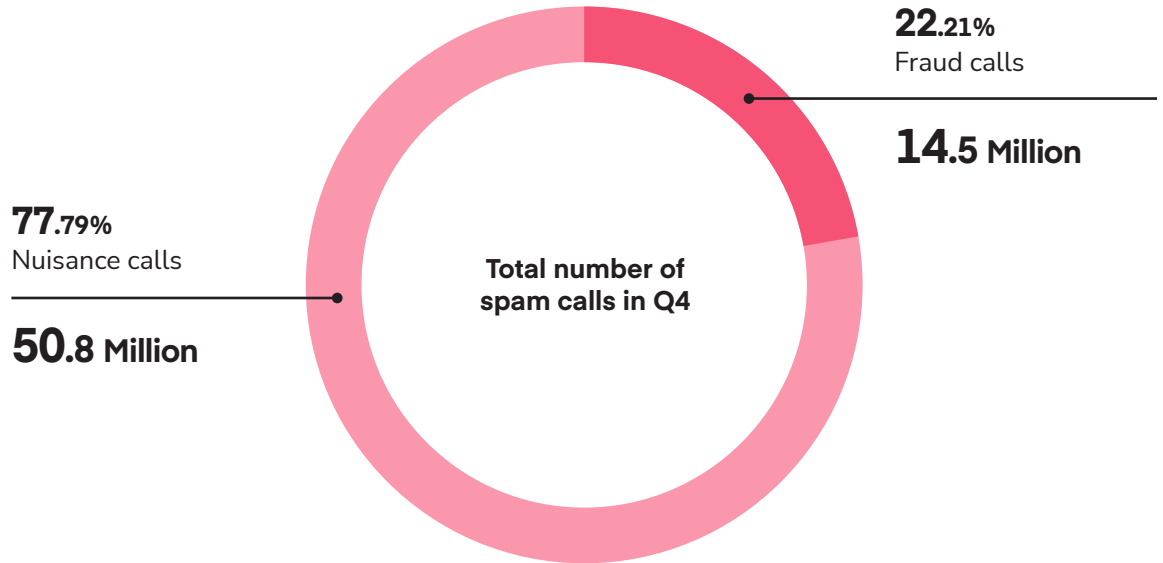in Norway

Poland

PERIOD

Q4
Oct 2023 - Dec 2023

6 Calls/Month
Average spam calls
per person

29%
Spam flag rate

- 23% Nuisance calls
- 6% Fraud calls
- 71% Other calls

22% of all spam calls in Q4 were labeled as fraud

22.21%
Fraud calls

14.5 Million

77.79%
Nuisance calls

50.8 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in Poland
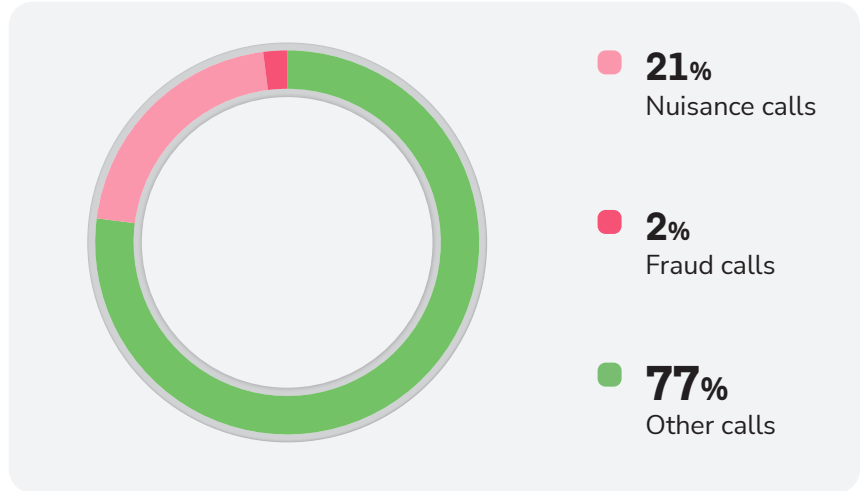
EUROPE

Portugal

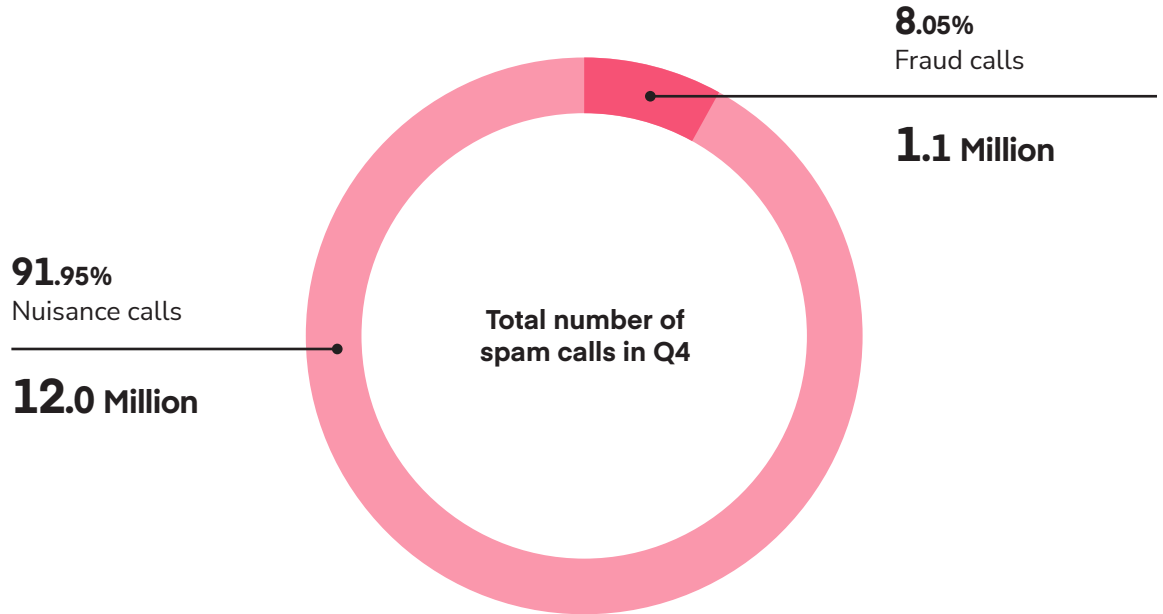PERIOD

Q4
Oct 2023 - Dec 2023

4 Calls/Month
Average spam calls
per person

23%
Spam flag rate

● **21**%
Nuisance calls

● **2**%
Fraud calls

● **77**%
Other calls

8% of all spam calls in Q4 were labeled as fraud

8.05%
Fraud calls

1.1 Million

91.95%
Nuisance calls

12.0 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.
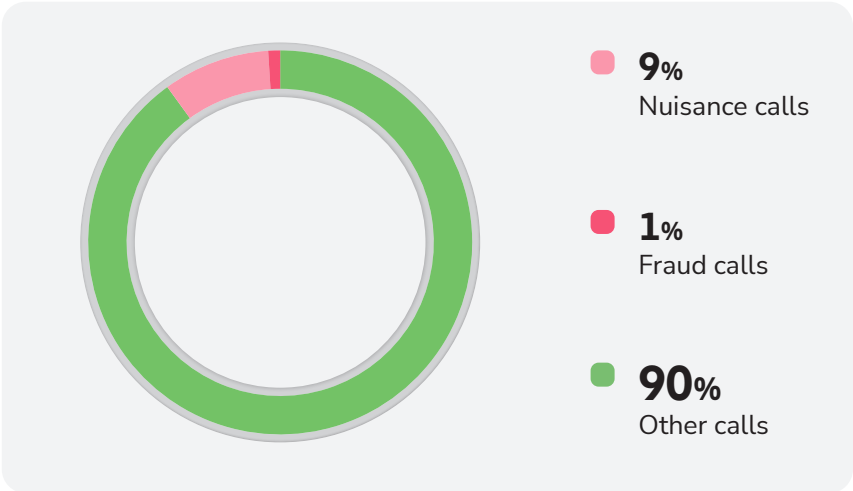
Source:
Samsung Smart Call users
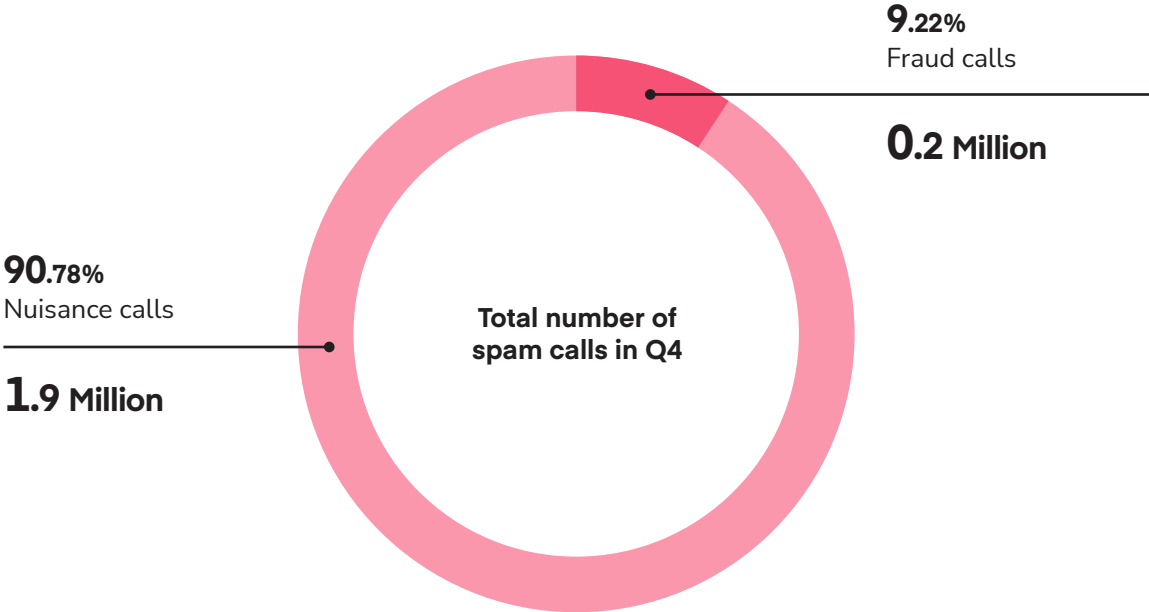in Portugal

EUROPE

Slovakia

PERIOD

Q4
Oct 2023 - Dec 2023

1 Calls/Month
Average spam calls
per person

10%
Spam flag rate

9%
Nuisance calls

1%
Fraud calls

90%
Other calls

**9% of all spam calls in Q4 were
labeled as fraud**

9.22%
Fraud calls

0.2 Million

90.78%
Nuisance calls

1.9 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.
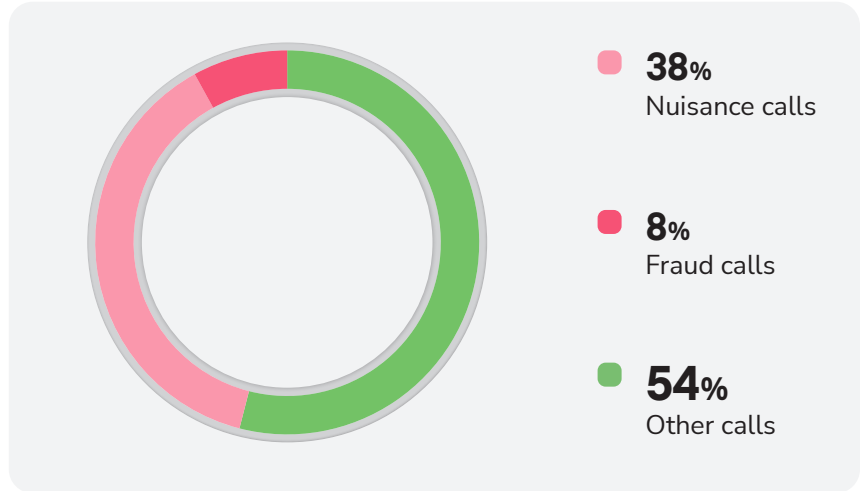
Source:
Samsung Smart Call users
in Slovakia

EUROPE

Spain

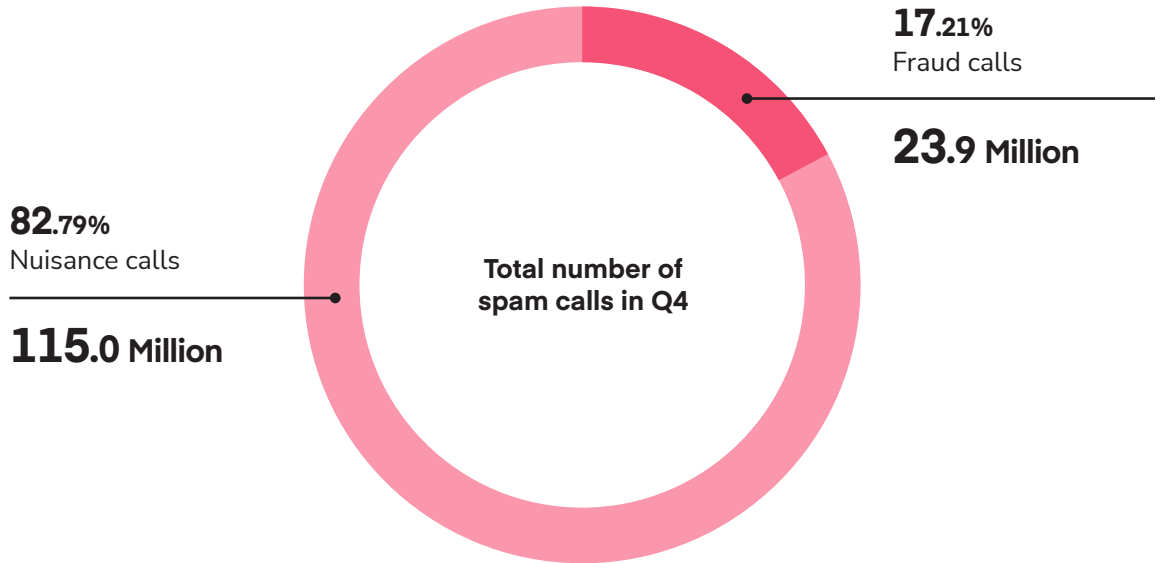**PERIOD**

Q4
Oct 2023 - Dec 2023

10 Calls/Month
Average spam calls
per person

46%
Spam flag rate

38%
Nuisance calls

8%
Fraud calls

54%
Other calls

17% of all spam calls in Q4 were labeled as fraud

17.21%
Fraud calls

23.9 Million

82.79%
Nuisance calls

115.0 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
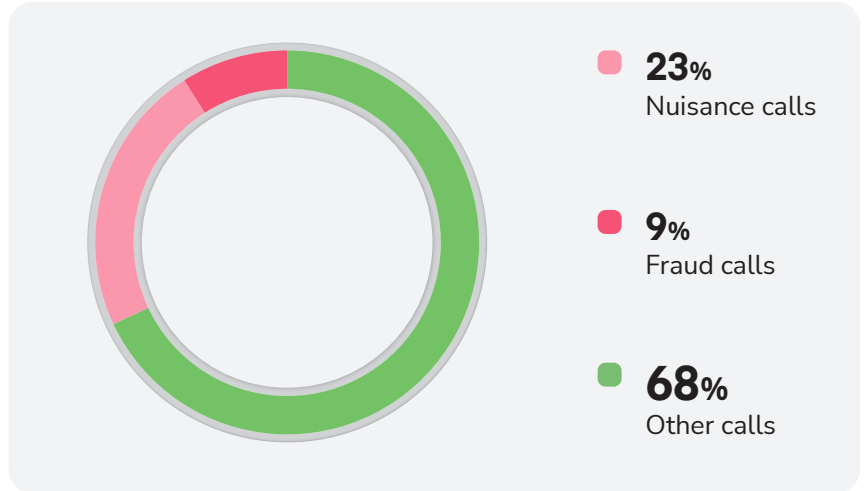Samsung Smart Call users
in Spain

EUROPE

Sweden
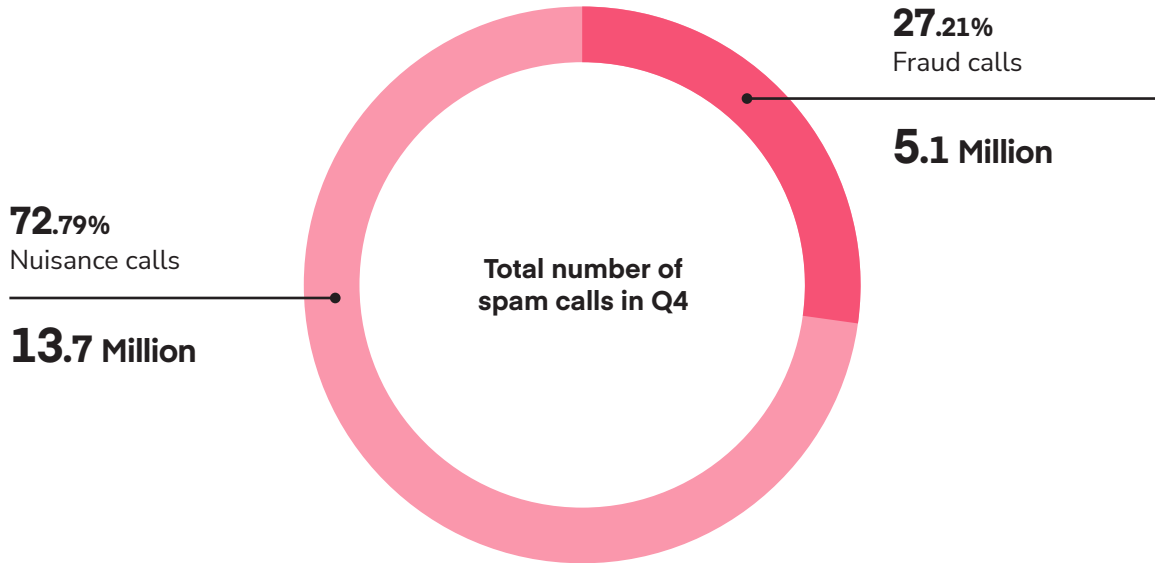
PERIOD

Q4
Oct 2023 - Dec 2023

5 Calls/Month
Average spam calls
per person

32%
Spam flag rate

● **23%**
Nuisance calls

● **9%**
Fraud calls

● **68%**
Other calls

27% of all spam calls in Q4 were labeled as fraud

27.21%
Fraud calls

5.1 Million

72.79%
Nuisance calls

13.7 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
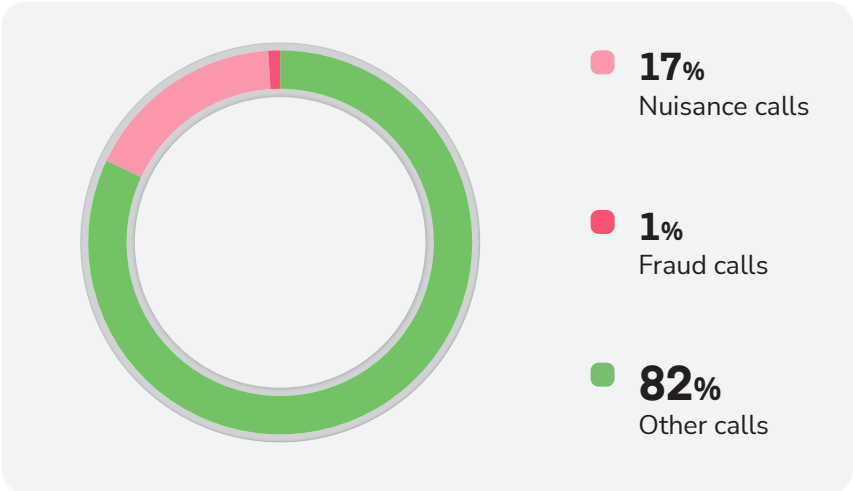address book.

Source:
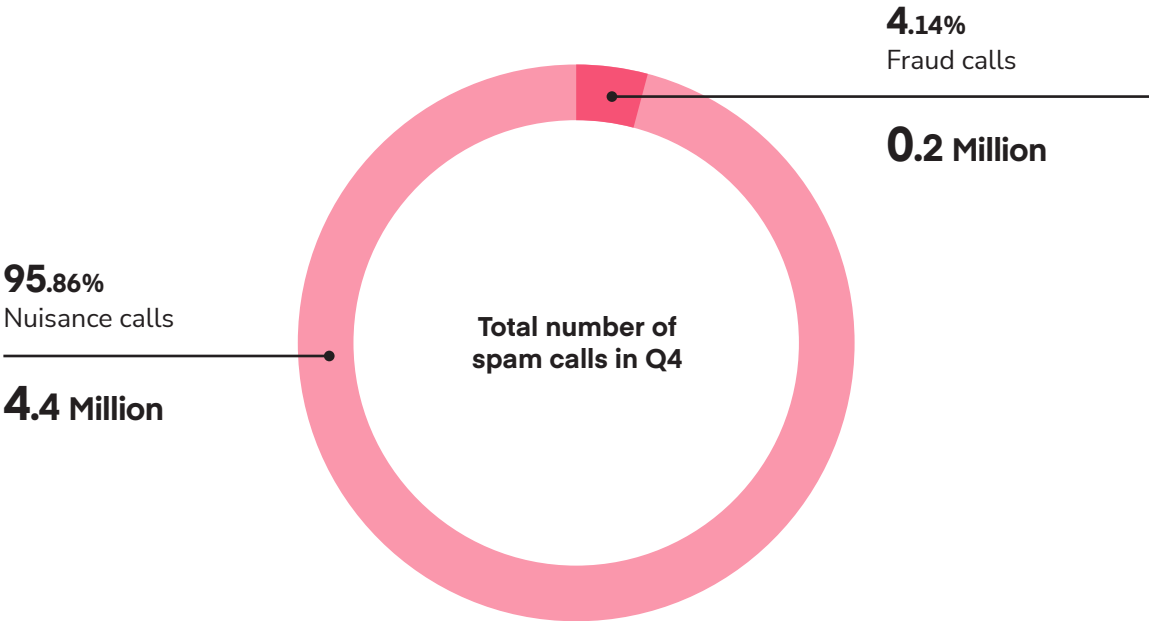Samsung Smart Call users
in Sweden

Switzerland

PERIOD

Q4
Oct 2023 - Dec 2023

2 Calls/Month
Average spam calls
per person

18%
Spam flag rate

17%
Nuisance calls

1%
Fraud calls

82%
Other calls

4% of all spam calls in Q4 were labeled as fraud

4.14%
Fraud calls

0.2 Million

95.86%
Nuisance calls

4.4 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.
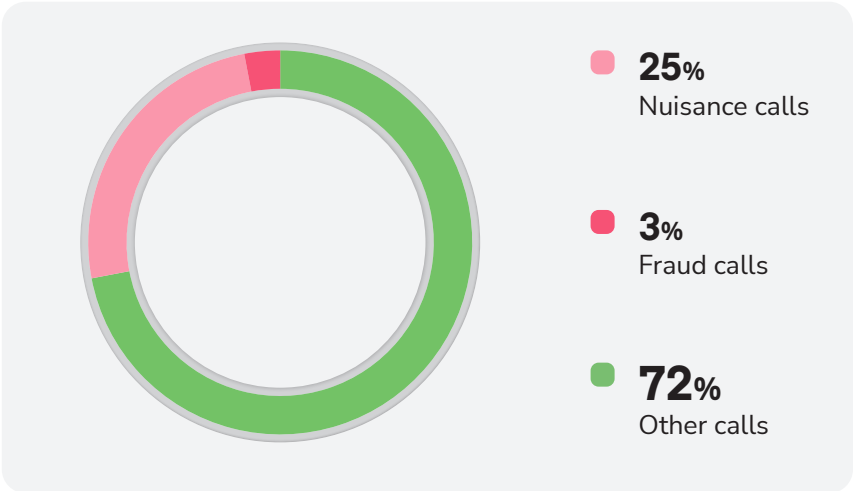
Source:
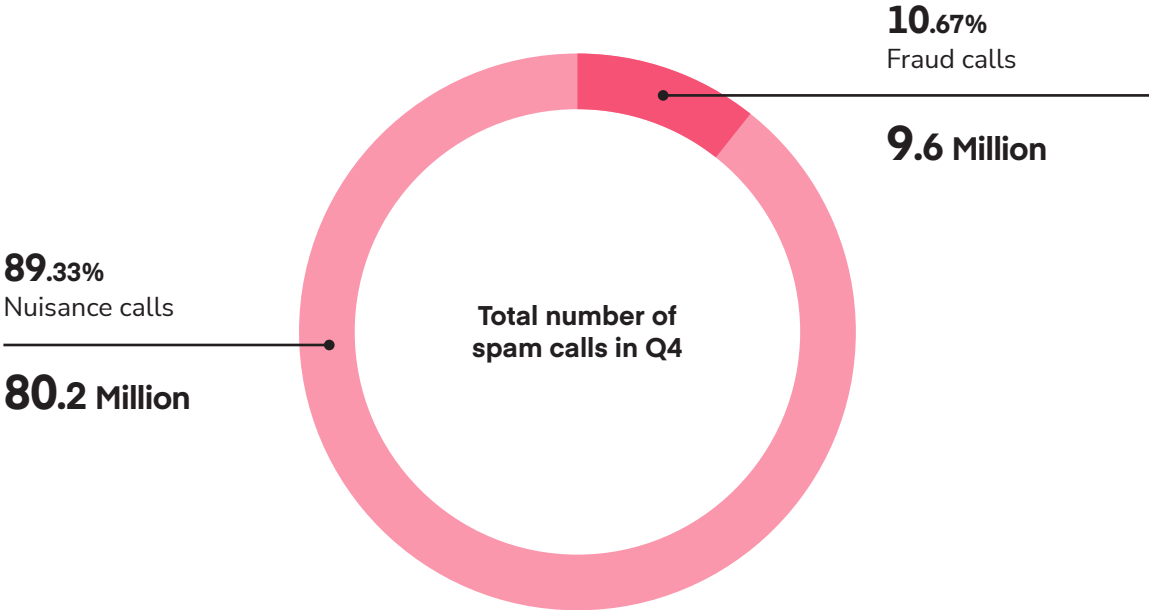Samsung Smart Call users
in Switzerland

United Kingdom

PERIOD

Q4
Oct 2023 - Dec 2023

hiya

4 Calls/Month
Average spam calls
per person

28%
Spam flag rate

● **25**%
Nuisance calls

● **3**%
Fraud calls

● **72**%
Other calls

10% of all spam calls in Q4 were labeled as fraud

10.67%
Fraud calls

9.6 Million

89.33%
Nuisance calls

80.2 Million

Total number of
spam calls in Q4

Spam ratios represent
the number of unwanted
calls from "non-contacts,"
which are calls placed
from numbers that are
not in an individual's local
address book.

Source:
Samsung Smart Call users
in United Kingdom

ABOUT HIYA

Hiya is trusted by global businesses, carriers and consumers to provide secure, engaging connections and stop unwanted calls. Built on the world's leading Voice Security Platform, Hiya connects businesses with their customers, helps carriers secure their networks, and protects people from spam and fraud calls.

Hiya's leading SaaS applications, Hiya Connect and Hiya Protect, improve the voice experience with trust, identity and intelligence. Powering call protection and identity services for AT&T, EE, Samsung, Ericsson and more, Hiya Protect outsmarts sophisticated scammers with machine-trained trust models and makes voice more intelligent via real-time, global analytics. With a reach of hundreds of millions of users worldwide, Hiya Connect enables enterprises to deliver an unsurpassed, differentiated customer experience through secure and branded calls, and optimizes business results with call performance intelligence.