Ex Post Evaluation of the Emergency Video Relay Regulation

An ex post evaluation of the impact of the emergency video relay regulation on deaf British Sign Language users

Published 30 May 2025

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1. Overview

This publication is part of Ofcom's ex post evaluation programme, which seeks to understand the impact of our regulation on consumer and market outcomes, an important aspect of ensuring that Ofcom is delivering for people and businesses in the UK.

This evaluation report looks at the emergency video relay regulation set out in General Condition C5.11 – C5.12 which came into effect on 17 June 2022. The emergency video relay regulation, among other things, required providers of fixed and mobile telephony services and providers of internet access services (collectively referred to as the "regulated providers") to provide or contract to provide emergency video relay. The key policy objective behind the regulation was to ensure equivalence of access to emergency communications to everyone in the UK, including deaf BSL users.

Regulated providers can choose to deliver the emergency video relay service themselves, contract directly with an emergency video relay supplier, or contract through another organization acting as a wholesaler.

Regulated providers must use an emergency video relay service that has been approved by Ofcom. Ofcom approved Sign Language Interactions' ("SLI")[1] emergency video relay service, 999 BSL, in a statement published in January 2022.[2] BT contracts with SLI and currently acts as the sole wholesale provider of emergency video relay for all regulated providers.

This evaluation report assesses the impact of the emergency video relay regulation on deaf BSL users, taking into account the key policy objective of this regulation.

What we have found

We found that 999 BSL has been sufficiently promoted amongst deaf BSL users to raise awareness of, and engagement with, the 999 BSL service. 999 BSL received around 20,000 calls in 2024 and the 999 BSL app has been downloaded 26,632 times as of February 2025.

The evidence we have examined suggests that 999 BSL is delivering beneficial outcomes and is an essential service for deaf BSL users. We judge that at least two lives are saved per year because of the 999 BSL service's availability.

We found that, since its inception, 999 BSL has faced various challenges such as the significant negative impact of nuisance callers on caller waiting times. We consider that many of the challenges faced by 999 BSL are unique to its function as an emergency video relay service for deaf BSL users. These challenges have affected SLI's ability to ensure video calls to the 999 BSL service were picked up at the same rate of speed as 999 Voice calls which arguably in turn affects equivalence of access to emergency communications for deaf BSL users. Encouragingly, however, we find that SLI have taken effective steps to address these challenges.

We found that industry is supportive of the emergency video relay regulation or generally recognises that the now-implemented regulation does not impose a disproportionate impact on their business. We note that industry raised some concerns about their experience of the regulation's implementation.

[1] SLI has since been acquired by Sorenson but still operates as its own subsidiary.

[2] See Ofcom, Emergency video relay: Decision to approve Sign Language Interactions' proposed service, 2022.

2. Introduction and background

Overview of the emergency video relay regulation

Ofcom has a duty under the Communications Act 2003 to further the interests of citizens and consumers in relation to communications matters. This includes having regard to the needs of disabled citizens. In June 2021, Ofcom required that providers of fixed and mobile telephony services and providers of internet access services provide or contract to provide a 24/7 video relay service, approved by Ofcom, for deaf BSL users to communicate with the emergency services.

Video relay involves a deaf BSL user signing via a video link to an interpreter in a call centre using a connected device such as a smartphone, tablet or PC. The interpreter translates what is signed to the hearing person (in this case the emergency services) and signs the response from the emergency services back to the deaf BSL user.

Figure 1 - Diagram of an emergency video relay call

Our proposal for emergency video relay was initially part of a package of measures published in 2019 under '*Fair treatment and easier switching for broadband and mobile customers*' ("Initial Consultation").[3] We published this set of proposals in response to changes in European rules which aimed to protect customers and help make sure they get a fair deal.

In response to the Initial Consultation, several implementation issues were raised. These included questions about whether data for emergency video relay calls should be zero rated i.e. provided for free, how the emergency video relay provider and any wholesaler would be certain of recovering their costs, and what would happen if there were multiple approved emergency video relay services. As a result, a further consultation[4] on this proposed regulation was published in February 2021 (the "Further Consultation") and, following consultation, the regulation was finalised in a Statement[5] published in June 2021 (the "Statement").

[3] See Ofcom, Fair treatment and easier switching for broadband and mobile customers, 2019.
[4] See Ofcom, Emergency video relay: Further consultation, 2021.
[5] See Ofcom, Emergency video relay: Statement, 2021.

Alternative emergency services for BSL users

Before the introduction of emergency video relay, the two main ways for deaf or speech-impaired people who could not make voice calls to contact the emergency services were text relay and emergency SMS.

Text relay can be used on a textphone or a connected device such as a PC, tablet or smartphone. A relay assistant in a call centre voices over what is typed by the deaf person and types what is said by the hearing person.

Emergency SMS allows users to send SMS (text) messages to 999, and to receive replies in the same format. Both these services rely on written English. Census data showed that many prelingually deaf BSL users struggle with English[6], and working in written English under stress can lead to misunderstandings with potentially fatal consequences.

The other option in an emergency was for a user to make noise or bang on the handset after making a voice 999 call and if the caller's location could be tracked, the police would attend to assess the situation and then summon the appropriate emergency service. However, using this method could cause a significant delay in providing the appropriate emergency service to the user.

Ofcom's assessment was that these alternative methods did not provide equivalent access to emergency communications for deaf BSL users.

We considered that emergency video relay would provide equivalent access for deaf BSL users by allowing them to use their first language to call for help in an emergency. Emergency video relay was also expected to make emergency communications faster and more accurate for deaf BSL users.

Ofcom's role

Ofcom's discretionary powers to require emergency video relay derive from the Communications Act 2003 (the "Act"), as amended by the regulations implementing the EECC Directive.[7] Under section 51(1)(a) of the Act, Ofcom can set conditions to protect the interests of end-users of public electronic communications services. This includes a broad power under section 51(2)(c) to set conditions specifically for services provided to disabled end-users.

It should be noted that Ofcom required regulated providers to provide or contract to provide emergency video relay but did not mandate how the industry should implement the provision of emergency video relay. The Statement clarified that implementation was the responsibility of the regulated providers. They could choose to deliver the emergency video relay service themselves, contract directly with an emergency video relay supplier, or contract through another organisation acting as a wholesaler. The emergency video relay service however would need to be a service approved by Ofcom.

To ensure that the emergency video relay service delivered equivalence for deaf BSL users, we set certain approval criteria (the "Approval Criteria") that would need to be met in order for a service to be approved by us[8].

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[6] For further information, see 'Literacy of deaf BSL users' heading in Annex A1.

[7] The Electronic Communications and Wireless Telegraphy (Amendment) (European Electronic Communications Code and EU Exit) Regulations 2020

[8] For information on the Approval Criteria specified see Annex 1 of Ofcom, Emergency video relay: Statement, 2021. In January 2023, minor amendments were made to the reporting requirements detailed in the Approval Criteria. Namely, Ofcom requested that in the reporting requirements: data points where communications

Approval of an emergency video relay service

Following the publication of the finalised Approval Criteria in the Statement, we invited applications from parties interested in operating an approved emergency video relay service. In September 2021, SLI applied to Ofcom for approval of its proposed emergency video relay service.

SLI is a company specialising in providing communication support for deaf and deafblind people, including video relay. SLI explained in its application that it had previous experience of delivering new video relay services in a timely way, for example the implementation, in conjunction with SignHealth, of SLI's 24/7 BSL Health Access Service.

In November 2021, we consulted on our assessment of SLI's proposed service against the Approval Criteria[9] and approved SLI's proposed service, named 999 BSL, in a statement published in January 2022.[10] The regulation requiring regulated providers to provide or contract to provide emergency video relay came into effect on 17 June 2022.

Our evaluation approach

Our evaluation sets out to assess the impact of the emergency video relay regulation on deaf BSL users through assessing the impact of the emergency video relay service, introduced because of Ofcom's emergency video relay regulation.

Three main types of evaluations are identified in the Government's Magenta Book guidance for evaluations:[11]

- **Process evaluations** which generally seek to understand what can be learned from how the intervention (in this case the emergency video relay regulation) was delivered, often done by examining the activities involved in the intervention's implementation.
- **Impact evaluations** which generally seek to understand what difference the intervention has made, often seeking to quantify and measure the outcomes generated by the intervention's implementation; and,
- **Value-for-money evaluations** which generally seek to understand whether the intervention is a good use of resources. A basic example of such an evaluation would be a comparison of the quantified cost and benefits associated with the intervention's implementation and operation.

An evaluation may contain elements of all three types of evaluation. However, our approach to evaluating the emergency video relay regulation generally aligns with an impact evaluation. When designing our evaluation approach, we considered that an important reason for evaluating the emergency video relay regulation was because of its significant impact on a vulnerable group, deaf BSL users. We therefore considered it important to focus our evaluation on understanding the impact of the availability of emergency video relay for deaf BSL users.

have been abandoned by the caller within 5 seconds should now be excluded, the requirement to measure the percentage of calls answered within 5 seconds in 15-minute intervals should now cover 24-hour periods, and the average call duration should now be reported on. Also see the Further Consultation.

[9] See Ofcom, Emergency video relay: Proposal to approve Sign Language Interactions' service, 2021.

[10] See Ofcom, Emergency video relay: Decision to approve Sign Language Interactions' proposed service, 2022.

[11] See Government, Magenta Book Guidance, 2020.

In our evaluation approach, we first consider the contextual background of the implementation by industry of the emergency video relay regulation, alongside stakeholders' experience of the implementation and ongoing operation of the emergency video relay service.

We rely on evidence obtained from stakeholders in March 2025. We engaged with stakeholders including BT (the current wholesale provider acting as an intermediary between SLI and regulated providers) and other regulated providers.

We then conduct an analysis to understand the impact of the emergency video relay service, 999 BSL. More specifically, we seek to understand how well 999 BSL has been promoted by stakeholders to raise awareness and ensure engagement with deaf BSL users, to what extent the 999 BSL has delivered outcomes in line with the regulation's objective, and the estimated benefits generated for deaf BSL users by the provision of 999 BSL. Our analysis is based on the following information:

- Monthly 999 BSL performance reports for the period June 2022, when the service launched, to February 2025.[12] ("999 BSL Performance Reports").
- SLI's 999 BSL annual reports for 2022/2023[13] ("999 BSL's 2022/2023 annual report") and 2023/2024[14] ("999 BSL's 2023/2024 annual report") which Ofcom requires[15] that SLI publish; and,
- Information shared during SLI and Ofcom bilateral meetings from the period June 2022, when the service launched, up to and including February 2025 ("Ofcom-SLI bilateral meetings")
- Information shared during an SLI and Ofcom meeting in March 2025 convened for the purpose of our evaluation ("Ofcom's March meeting with SLI").

The rest of this document is set out as follows:

- Section 3 examines how emergency video relay has been implemented by industry.
- Section 4 assesses the impact of the emergency video relay service and the estimated benefits of the provision of the emergency video relay service for deaf BSL users, taking into account the regulation's key policy objective.
- Section 5 presents our evaluation report's conclusions.
- Annex 1 details the calculations used to estimate the benefits generated by the provision of the emergency video relay service in the consultations and Statement's impact assessment and the revised estimation we calculate for this evaluation report.

[12] As part of the Approval Criteria, Ofcom requires an approved emergency video relay service provider to monitor and report to Ofcom, every quarter, on its operation. See Annex 1 of Ofcom, Emergency video relay: Statement, 2021.
[13] See SLI, 999 BSL Emergency Video Relay Service: Annual Report (2022/2023), 2023.
[14] See SLI, 999 BSL Emergency Video Relay Service: Annual Report (2023/2024), 2024.
[15] As part of the Approval Criteria, Ofcom requires that an approved emergency video relay service provider must publish an annual report covering compliance with the Approval Criteria and any related issues as directed by Ofcom. See Annex 1 of Ofcom, Emergency video relay: Statement, 2021.

3. Industry provision of emergency video relay

This section covers the emergency video relay regulation's implementation by industry alongside stakeholders' experience of the implementation and ongoing operation of the emergency video relay service.

As discussed in the previous section, we note that Ofcom did not mandate how industry should implement or provide emergency video relay to customers. These are both matters for industry to decide.

During the implementation period, BT came forward to act as a wholesale provider of emergency video relay for industry

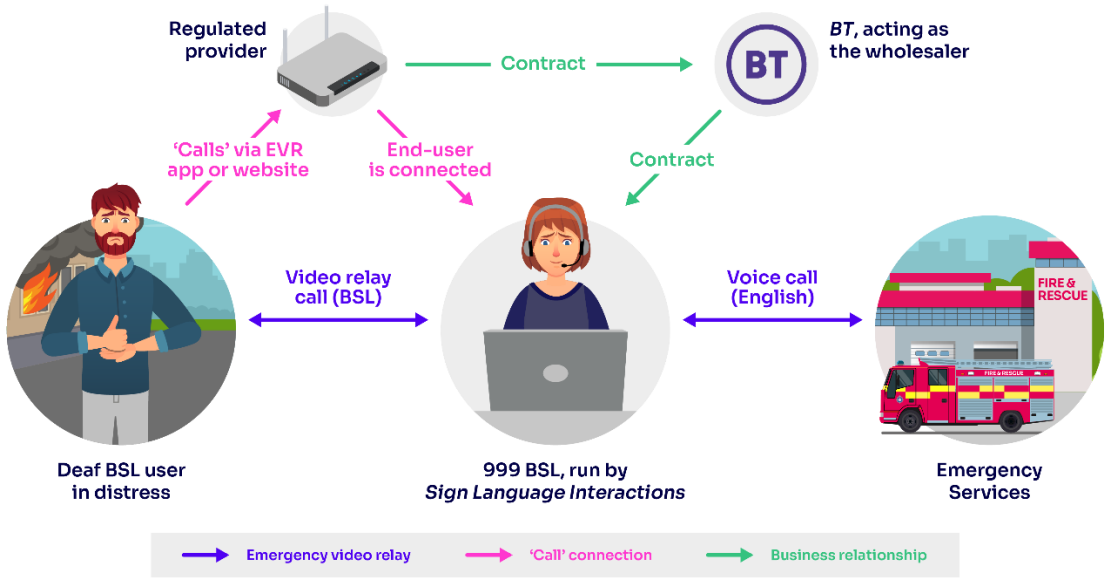
In response to the Further Consultation, various stakeholders raised concerns about how an emergency video relay service could contract with regulated providers to recover their costs. It is not possible for the video relay service supplier to charge based on use. Video calls do not dial on a network and therefore it is not always possible to determine from which regulated provider the emergency video relay call originated. Therefore, cost recovery in the case of emergency video relay posed a challenge requiring a cost sharing agreement among regulated providers.

To guarantee that regulated providers pay their share of the costs, the emergency video relay regulation requires that regulated providers either provide or contract to provide emergency video relay to their customers. If a regulated provider were to choose to contract to provide emergency video relay, they can either directly contract with an emergency video relay supplier or through a wholesaler who contracts with an emergency video relay supplier and then contracts with regulated providers to recover the costs.[16] In the Statement, we acknowledged that contracting directly or via a wholesaler could be an efficient way for the emergency video relay service to be delivered while noting that implementation was a matter for industry rather than for Ofcom.

Following Ofcom's approval of SLI's emergency video relay service in January 2022, BT proposed, in February 2022, to provide emergency video relay wholesale to industry.[17] Since this proposal, BT has acted as the wholesale provider of emergency video relay for all regulated providers.

[16] Ofcom is not party to the contractual agreements between regulated providers, the emergency video relay supplier and, where relevant, a wholesaler. However, as set out in the Approval Criteria, Ofcom does require that provision of emergency video relay is on fair, reasonable, and non-discriminatory terms. For more information on these terms, see Annex 1 of Ofcom, Emergency video relay: Statement, 2021.
[17] See BT, BT proposes to wholesale Emergency Video Relay to Industry, 2022.

Figure 2 - Stakeholders involved in the implementation of emergency video relay



Note: EVR = Emergency video relay

As part of our stakeholder engagement, BT discussed the industry-wide advantages of serving as the wholesale provider for emergency video relay. It noted that having all regulated providers contract with SLI through BT creates economies of scale that wouldn't be possible if each provider contracted individually. Additionally, BT advised that it was able to use its existing billing relationships from the wholesale provision of the 999 Voice service to establish billing for emergency video relay, this then allowing BT to recover the costs of the emergency video relay service from regulated providers. One provider, [✂], found it helpful that BT was able to take the lead in terms of establishing a system and stated this likely made the implementation process easier for regulated providers. Finally, BT observed that, despite initial questioning of rationale from across industry, it has not received further feedback or complaints from regulated providers and therefore believes that this funding model is broadly accepted.

However, two regulated providers, [✂], mentioned concerns in principle around BT being the only wholesaler for emergency video relay. One provider, [✂], noted how the lack of another wholesaler could limit the competitive pressure which may serve to constrain the prices BT is able to charge regulated providers for emergency video relay. We are not aware of any competition concerns around potential excessive pricing due to BT's monopoly position to have materialised post-implementation. Further, we note BT's belief, stated in the previous paragraph, that its funding model is broadly accepted by industry due to a lack of further complaints or feedback from regulated providers.

One regulated provider, [✂], noted that an additional emergency video relay service which is approved and operating could be beneficial if dissatisfaction arises with 999 BSL. We note that this is an 'in principle' concern and are not aware of any problems arising in practice.

The emergency video relay regulation was implemented by the 17 June 2022 deadline

In the Initial Consultation, we consulted on an expected sequence of actions and timings for the implementation of the regulation. Following consultation, our Statement, published in June 2021, restated the timetable with the precise dates for when these actions and timings would take place.

This included setting out that the general conditions relevant to the emergency video relay would come into effect on 17 June 2022.[18]

Figure 3 - Final table for implementation from the Statement

Timing	Action
22 June 2021	Publication of final approval criteria
1 September 2021	Deadline for expressions of interest
1 October 2021	Deadline for formal applications
November 2021	Consultation on any proposal to approve services
January 2022	Publication of a decision by Ofcom to approve one or more services
January-June 2022	Regulated providers contract with a supplier of an approved service, either via a wholesaler or direct
17 June 2022	Regulation came into force

On 17 January 2022, Ofcom approved the emergency video relay service proposed by SLI. BT proposed to act as a wholesaler on 8 February 2022. By 17 June 2022, when the regulation took effect, all regulated providers had contracted to provide emergency video relay through BT as the wholesaler and 999 BSL was available for customers to use. As of publication, we are not aware of any regulated provider expressly refusing to contract with BT or contracting directly with SLI.

While two regulated providers, [✂], were content with how the implementation period went, three regulated providers, [✂], said that the timings of the implementation period for emergency video relay made the implementation of emergency video relay feel rushed. One regulated provider, [✂], said it felt that it did not have sufficient time or ability to negotiate its wholesale relationship with BT. This provider noted that it couldn't negotiate terms which it had issues with, such as BT's ability to raise prices at their own discretion, because of the implementation timings. This provider also noted how it and other regulated providers, in the year before the compliance deadline, had repeatedly raised concerns with Ofcom about the delivery timeframe. Additionally, two regulated providers, [✂], noted that the implementation process would have been smoother if there was more time between Ofcom's approval of the emergency video relay service and the date when the regulation took effect. We note that the implementation timetable was consulted upon before being set out with precise dates in the Statement and Ofcom approved the emergency video relay service as per the timing in the published timetable.

Three regulated providers, [✂], discussed how implementation would have been a smoother process if Ofcom were more involved. One regulated provider, [✂], discussed how it and other regulated providers had asked Ofcom to intervene to assist in moving implementation efforts forward and voiced some frustration that Ofcom's involvement was not swifter and more effective. While implementation was a matter for industry rather than Ofcom, in the Statement we said that we would be happy to attend, if invited, any implementation working group set up by industry.

In general, the ongoing operation of the emergency video relay service is viewed positively by stakeholders

Generally, the regulated providers who commented on the ongoing operation of 999 BSL were happy with the service. Several regulated providers said that the service is not something that they

[18] See Annex 2 of Ofcom, Emergency video relay: Statement, 2021.

have received any complaints about. Two regulated providers, [✂], discussed how the emergency video relay regulation is not something that they have to deal with daily. One regulated provider, [✂], said that the emergency video relay regulation does not generate a notable volume of complaints or queries for its regulatory team. One regulated provider, [✂], said it thought that the provision of emergency video relay was working well. We note that several regulated providers stated that they are not able to monitor usage of 999 BSL by their customers and so could not provide further insight into their customers' experience or usage of the service. This reflects 999 BSL being operated by SLI, a third party to regulated providers. However, three regulated providers, [✂], still highlighted the importance of the emergency video relay regulation and the benefits it generates for deaf BSL users.

One regulated provider, [✂], raised concerns about the absence of user registration and its belief that this contributes to the volume of nuisance calls on the service. This provider noted that Ofcom has previously objected to user registration due to the principle of equivalence of access but the regulated provider cited that emergency SMS, offering a similarly important service to end-users with disabilities, does require an initial registration. This provider suggested that Ofcom should therefore reconsider its view on initial registration. We note that Ofcom's view remains that compulsory registration would not be consistent with the principle of equivalence. This is because hearing people do not need to register to make voice 999 calls.[19] We consider that if the service required users to log in at the time of use, this could lead to harm in time-critical emergency situations e.g. an end-user struggling to remember their password while their house was on fire. It should be noted that emergency SMS does not require users to log in to use the service.

General Condition C5.6 requires that regulated providers take reasonable steps to publicise the emergency video relay service. One regulated provider, [✂], felt that the responsibility to further raise awareness of 999 BSL falls on charities and similar organisations.

Conclusion

We believe that industry is generally supportive of the emergency video relay regulation and its intended objectives or generally recognises that the now-implemented regulation does not impose a disproportionate impact on their business.

Regulated providers did raise some concerns about the implementation of the regulation. These included competition concerns in principle and views that the implementation of emergency video relay felt rushed.

We note these stakeholder experiences and in the next section assess the impact of the emergency video relay service on deaf BSL users and others.

[19] In footnote 111 of the Statement, we noted that there is minimal registration for emergency SMS (users text 'register' to 999). The reason for this is to protect the service from messages sent in error which waste resources. There are up to 500 messages a day from unregistered mobile numbers to 999, most of which are clearly not intended for the emergency services (e.g. "I'm running late"). We considered that the problem of messages sent in error would be very unlikely to arise with emergency video relay because of the way in which the service would be accessed and used.

4. Impact of the emergency video relay service

This section discusses the impact of the provision of the emergency video relay service, 999 BSL, including the benefits that it has delivered to deaf BSL users and others.

Currently, the provision of emergency video relay to deaf BSL users in the UK is only available through the emergency video relay service, 999 BSL, operated by SLI.[20] A deaf BSL user accesses the emergency services by calling, via a video link, 999 BSL using the service's dedicated app or website. A deaf BSL user will then be put through to an SLI interpreter who will relay between the deaf BSL user and the emergency service. Given that 999 BSL is currently the only operating emergency video relay service, we consider that by assessing the impact of the 999 BSL service we can more broadly assess the impact of the emergency video relay regulation.

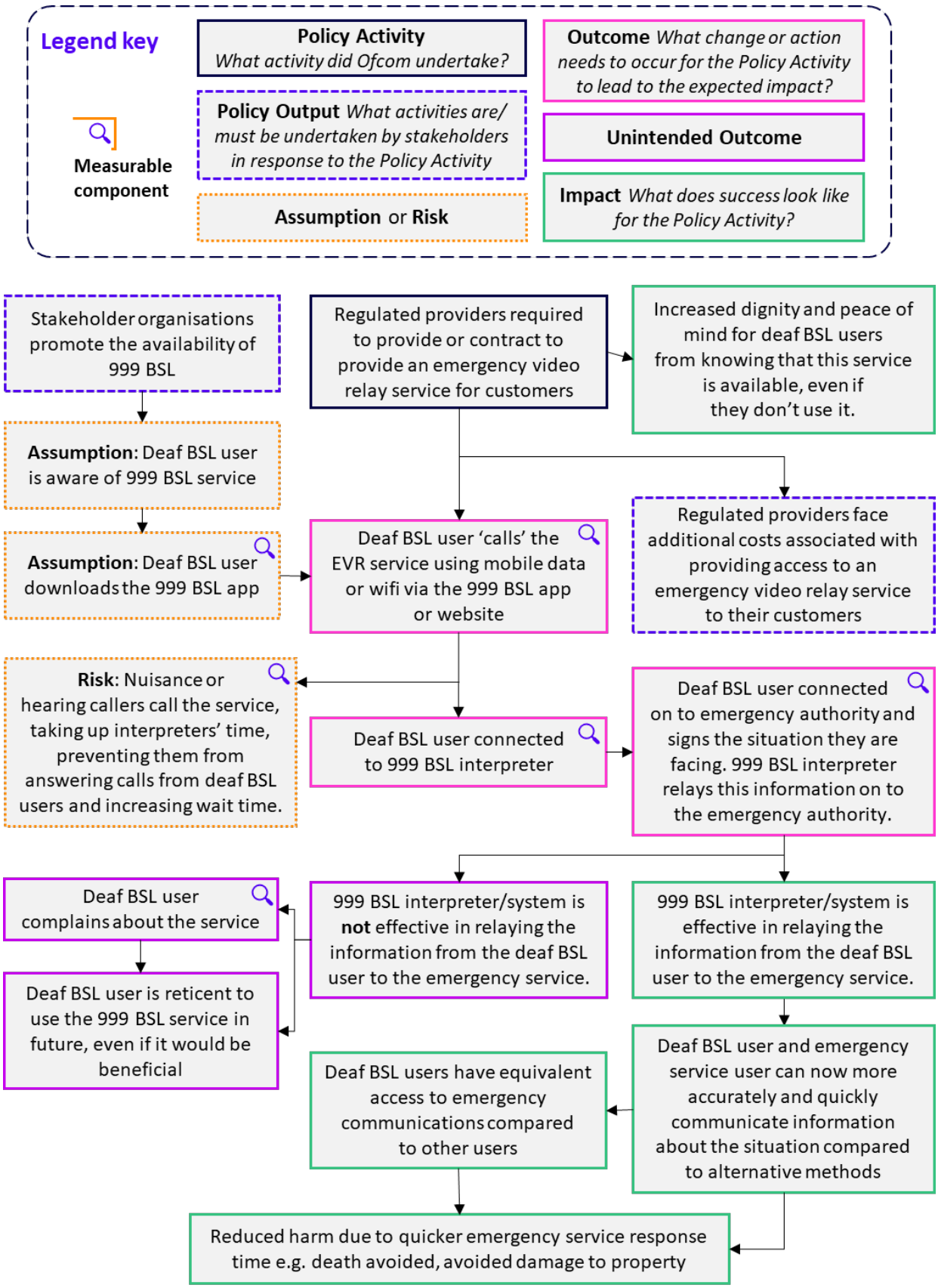
We have used a Theory of Change to structure our approach to understanding 999 BSL's impact.[21] A Theory of Change is a tool which can be used to understand how the imposition of a regulation should lead to its intended impacts. It does this by mapping out the causal chain of outcomes through which a regulation likely acts to deliver its impacts. It also considers how risks, external factors, and assumptions fit into this causal chain and the ways they can influence how the regulation works.

In figure 4, we have visualised the Theory of Change which we have used to understand how the emergency video relay regulation should have delivered benefits to deaf BSL users and others and achieved the key policy objective of giving deaf BSL users equivalent access to emergency communications.

[20] We note that Ofcom cannot apply any restrictions to the number of video relay service providers which can seek and receive approval to operate an approved service.

[21] In the Magenta Book Guidance, Government advises using a Theory of Change as the first step of an evaluation. See page 21 of Government, Magenta Book Guidance, 2020.

Figure 4 – Theory of Change



Note: EVR = Emergency video relay

Data and research questions

We considered which components of our Theory of Change could be measured with the data available or which would be proportionate to request.

The data which we had available was:

- Monthly 999 BSL performance reports for the period June 2022, when the service launched, to February 2025.
- 999 BSL's 2022/2023 annual report and 999 BSL's 2023/2024 annual report.
- Information shared during Ofcom-SLI bilateral meeting; and
- Information shared during Ofcom's March meeting with SLI.

We used the above data to answer the following research questions:

- **Promotion of the emergency video relay service:** *How well has the emergency video relay service been promoted by regulated providers and other stakeholders to raise sufficient awareness and thus engagement with the service?*
- **Provision of the emergency video relay service:** *To what extent has the provision of an emergency video relay service ensured that deaf BSL users have equivalent access to emergency communications, as intended by the policy objective?*
- **Consumer outcomes from the provision of emergency video relay:** *What benefits have been generated for deaf BSL users and others by the service becoming available?*

By addressing these research questions, we believe that we can identify factors which may have influenced how the regulation worked in practice and assess the impact of the emergency video relay service and the benefits that it has delivered to deaf BSL users and others. In the following sections, we will assess each research question in turn.

Promotion of the emergency video relay service

999 BSL has been publicised through efforts made by Ofcom, regulated providers, SLI, emergency authorities, deaf charities and other stakeholder organisations. Regulated providers generally publicised 999 BSL[22] by informing customers about the service on the section of their website containing resources and guidance for vulnerable or disabled customers. Across all types of stakeholders, social media has been used to publicise the service at launch and continues to be used to raise awareness of the service. Additionally, deaf charities, SLI, and Ofcom have put on or attended events for the deaf community to raise awareness of and answer any questions about the service.

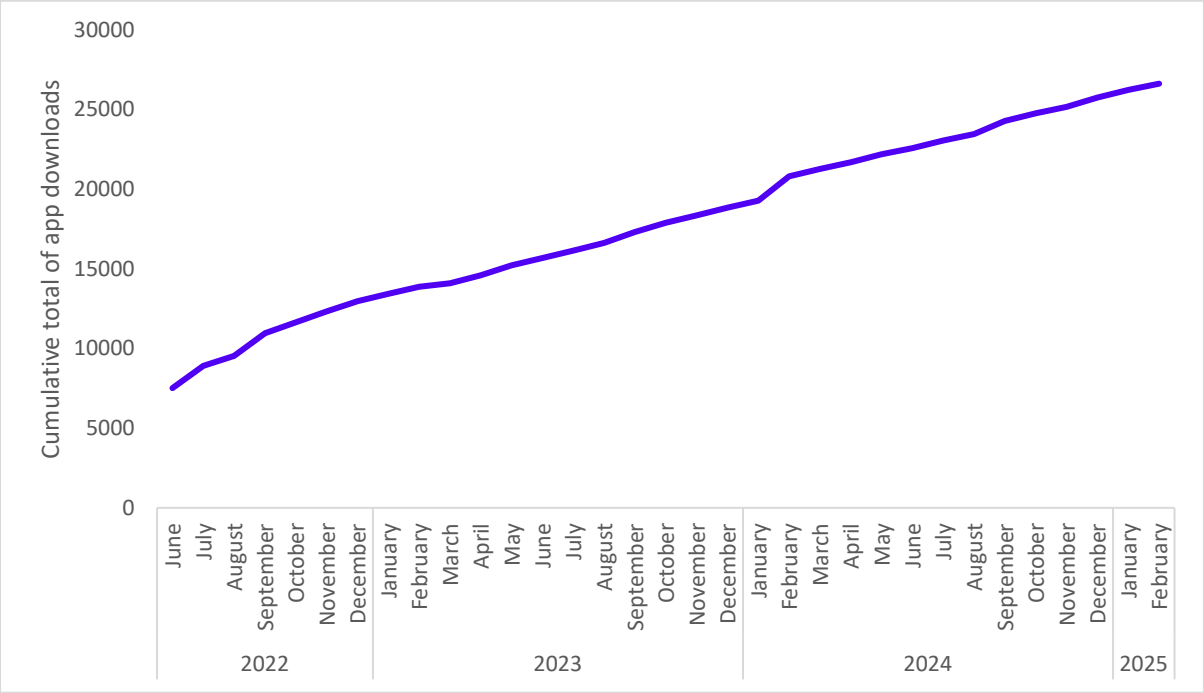
999 BSL has been sufficiently promoted to raise awareness of its availability

Figure 5 shows the cumulative total of Android and iOS app downloads for the 999 BSL mobile application. It provides an indication of the awareness of the service because a user must be sufficiently aware of the service to download the app. The figure may not fully account for deaf BSL

[22] Telecoms providers have an existing duty to publicise the services for disabled end-users that are required by regulatory obligation. See General Condition C5.6 of Ofcom, General Conditions of Entitlement, [website accessed: 07/04/2025].

users aware of 999 BSL because there may be users who are aware of the service but do not download the app, for example if they prefer to access the service through the service's website instead of the app.[23]

Figure 5 – The cumulative total of the combined iOS and Android 999 BSL app downloads



Source: 999 BSL Performance Reports; Note: June 2022 data shown is for period 17 June (service launch date) to 30 June.

The chart above shows that the cumulative total of 999 BSL app downloads has significantly increased since the app became available. The app was downloaded 7,518 times as of June 2022 and downloaded 26,632 times as of February 2025.[24]

Based on the ONS England and Wales 2021 census data, we estimate that there are 24,300 deaf BSL users in the United Kingdom.[25] We therefore believe there's sufficient evidence to suggest that awareness over time has increased such that, as of February 2025, a significant proportion of deaf BSL users in the UK are aware of 999 BSL and able to easily access the service through the app.[26]

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[23] 999 BSL is accessible through both a dedicated app and website as required in the Approval Criteria. We require that end users must be able to access the emergency video relay service through a dedicated app and a dedicated website. See Annex 1 of Ofcom, Emergency video relay: Statement, 2021.

[24] Source: 999 BSL Performance Reports.

[25] Our estimation is calculated by multiplying the 2021 ONS Census figure for the number of people in England and Wales whose main language at home is British Sign Language, 21,635, by 1.12 which is the ratio of the UK population to the England and Wales population based on ONS mid-2023 population estimates. We use this methodology because the number of people whose main language at home is British Sign Language is not measured consistently across the England and Wales, Scotland, and Northern Ireland censuses. Furthermore, we note that estimates of the number of deaf BSL users in the UK vary. For example, the British Deaf Association (BDA) considers that the England and Wales 2021 census significantly undercounts the number of people whose first language is BSL. See BDA, BSL Statistics, [website accessed:07/04/2025]

[26] We note that there are various reasons why the number of cumulative app downloads is higher than the estimated population of deaf BSL users in the UK. As highlighted in footnote 25, using the 2021 ONS census data may result in an underestimation of the deaf BSL user population. Also, the number of app downloads may not wholly reflect unique downloads by deaf BSL users because: there is no restriction on who can

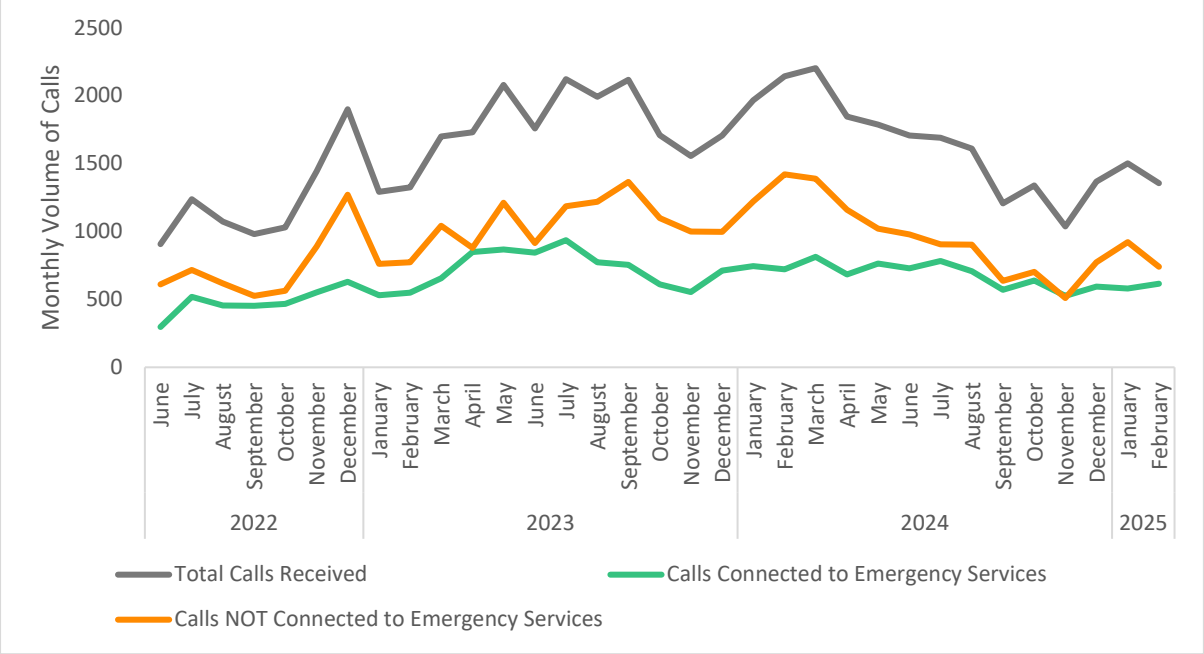
Deaf BSL users are engaging with this service to communicate with the emergency services

Figure 6 shows the monthly volume of calls received by the 999 BSL service. From June 2022, when the service first became available, to March 2024, there was an upward trend in the monthly volume of calls received by 999 BSL. However, from March 2024 onwards the monthly volume of calls of any type have been on a significant downward trend.

Encouragingly, however, this downward trend does not reflect a significant decrease in the monthly volume of calls 999 BSL received from deaf BSL users which were connected on to emergency services. Instead, it reflects there being fewer calls made to 999 BSL which did not serve to connect a deaf BSL user to an emergency service.

We note that the significant drivers of this downward trend from March 2024 appear to be the parallel downward trends in the volume of nuisance calls and calls by hearing people to the 999 BSL service. Later in this document, we discuss the challenges which SLI have faced due to nuisance callers, who represent a significant proportion of calls not connected by 999 BSL to emergency services, and hearing people calling the service. We also discuss the steps which SLI have taken to effectively address both these challenges and other challenges SLI have faced.

Figure 6 – Monthly volume of calls received by 999 BSL



Source: 999 BSL Performance Reports; Note: June 2022 data shown is for period 17 June (service launch date) to 30 June.

download the app so hearing people may be responsible for some downloads; an app downloaded multiple times (e.g. for different devices) by the same person would register as multiple app downloads; and, while SLI has removed from the data a clear instance of an organisation downloading the app en masse, organisation-wide downloading of the app may have occurred. Regardless, we believe there is enough evidence to suggest a significant proportion of the deaf BSL UK population is aware of 999 BSL.

Provision of the emergency video relay service

999 BSL has met all the criteria set by Ofcom except for the criterion that at least 95% of emergency communications must be answered within 5 seconds.

The Approval Criteria is aimed at ensuring that deaf BSL users have equivalent access to emergency communications as intended by the emergency video relay regulation's key policy objective. We therefore consider how 999 BSL has performed in relation to the Approval Criteria to the extent that it enables us to understand whether the key policy objective has been achieved and, consequently, assess the regulation's impact for deaf BSL users.

The extent to which 999 BSL's provision of emergency video relay has contributed to deaf BSL users' equivalence of access to emergency communications is supported by the following evidence:

- For the purpose of our evaluation report, we consider that 999 BSL has met the criteria set out in the Approval Criteria in every area (notably setting up and running a 24/7/365 functioning service) except for one element of 'Quality of Service'.[27]
- SLI, as of February 2025, only received 3 complaints about 999 BSL since the service became available.[28]
- The median waiting time for a call to be answered by a 999 BSL interpreter reported in SLI's 2022/2023 and 2023/2024 reports were four seconds and three seconds, respectively.[29]

However, as shown in figure 7, our ability to conclude that the 999 BSL service has ensured equivalence is limited by the service not having yet met the requirement that the percentage of calls answered within 5 seconds of the call starting ("PCA-5") is greater than 95% as measured in 15-minute intervals ("PCA-5 requirement").

We note that, as discussed later in this section, 999 BSL's PCA-5 percentage has been steadily improving over time and the PCA-5 is now close to the target. In the most recent months of our data collection period the PCA-5 reached 91% in January 2025 and 90% in September, November and December 2024. The PCA-5 dropped to 87% in February 2025, the latest month of the data collection period.[30]

The threshold for the PCA-5 requirement was set at 95% to be in line with the 95% value which Ofcom sets as the PCA-5 requirement for 999 Voice. We required that both services meet the same threshold to ensure that an approved emergency video relay service provides equivalence of access to emergency communications for deaf BSL users.[31]

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[27] In the Approval Criteria there are seven general headings of compliance which an emergency video relay service is required to meet to be approved by Ofcom. These are: 1) General compliance, 2) Accountability and reporting, 3) Access, 4) Operational matters, 5) Quality of Service, 6) Adequate resources, and 7) Provision of fair, reasonable, and non-discriminatory terms. See Annex 1 of Ofcom, Emergency video relay: Statement, 2021.

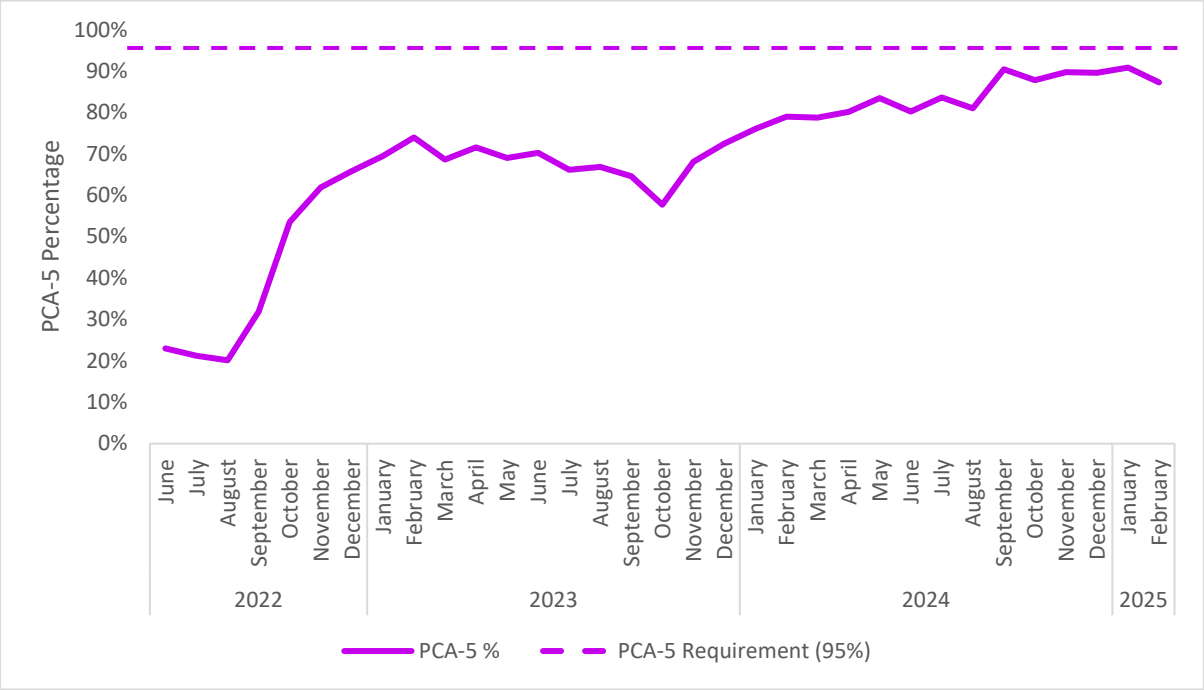
[28] Source: 999 BSL Performance Reports.

[29] Source: 999 BSL's 2022/2023 Annual Report; 999 BSL's 2023/2024 Annual Report.

[30] Source: 999 BSL Performance Reports

[31] Data on 999 Voice's PCA-5 is not publicly available. We did not deem it proportionate to request or disclose this information because, regardless of whether BT, who operate 999 Voice, meet this requirement, an emergency video relay service must meet the PCA-5 requirement to ensure equivalence of access to emergency communications for deaf BSL users as set out in the Approval Criteria.

Figure 7 – Monthly PCA-5 metric for SLI's 999 BSL service



Source: 999 BSL Performance Reports; Note: June 2022 data shown is for period 17 June (service launch date) to 30 June.

SLI have faced various challenges which have affected 999 BSL's ability to meet the PCA-5 requirement

Information from 999 BSL's 2022/2023 and 2023/2024 annual reports, Ofcom-SLI bilateral meetings, and Ofcom's March meeting with SLI highlights the challenges which the 999 BSL service has faced to meet the PCA-5 requirement, these include:

a) **Nuisance callers:** In 999 BSL's 2022/2023 annual report, SLI noted how hearing nuisance callers, especially those repeatedly calling the service in short periods of time, have the most significant negative impact on their ability to meet the PCA-5 requirement. In this report, SLI highlighted an extreme case where they received more than 150 calls from the same nuisance caller in a very short period of time. Furthermore, we found that in 26 out of the 33 months of 999 BSL's operation from June 2022 to February 2025, nuisance callers were the most common reason why the interpreter did not connect the call to an emergency service.[32]

   In 999 BSL's 2022/2023 annual report, SLI noted how their interpreter resourcing is low relative to 999 Voice, reflecting the difference in call volumes received by the services. In 2023, 999 BSL received, on average, approximately 60 calls per day while 999 Voice received, on average, approximately 100,000 calls per day.[33] SLI noted how their comparatively low resourcing makes their service more sensitive to high volumes of

[32] Based on an internal analysis conducted on data from 999 BSL's Monthly Performance Reports. The calculated figure excludes any instance where the reason the call was not connected to BT was that the caller hung up before the call was answered, classified under 'other' or not provided by the SLI interpreter.
[33] This is based on an internal analysis conducted using 999 Voice data (source: London Fire Consultants, Emergency Call Statistics for 2023, [website accessed 15/05/2025]) and 999 BSL call data (Source: 999 BSL 2022/2023 annual report and 999 BSL 2023/2024 annual report).

calls within a short period of time compared to 999 Voice. In Ofcom's March meeting with SLI, SLI also discussed how one nuisance caller can potentially block up all the available interpreters, because the caller may disconnect and redial while the interpreter is still providing the call information to the emergency services. Consequently, we note how a single or very small number of nuisance callers can block up 999 BSL's available interpreting resource which can negatively affect their PCA-5.[34]

Additionally, SLI reported cases where nuisance callers engaged in lewd acts on screen or expressed hateful comments based on the interpreter's appearance or characteristics over text or voice.[35] This could negatively affect the wellbeing of interpreters and their preparedness for subsequent calls.

b) **Hearing callers:** In 999 BSL's 2022/2023 and 2023/2024 annual reports, SLI said that hearing callers regularly call 999 BSL believing that the service is a channel for anyone to contact the emergency authorities using video communication. These types of calls occur much less frequently than nuisance calls.[36] However, in emergency situations the engaged interpreter is not free to answer other deaf BSL callers until the hearing caller has been passed on to the required emergency service and all the legs of the call are complete. [37] This can still therefore affect the PCA-5.

c) **Interpreter behaviour and training:** In 999 BSL's 2022/2023 annual report they said that a challenge their interpreters have faced is staying alert following an extended period where there has not been a call to the service. SLI compared the experience of a 999 Voice call handler, who can expect to face a new call seconds after the previous one finished, to a 999 BSL interpreter who may, in an extreme case, face several hours' wait from one call finishing to the next one starting.

d) **Video remote interpreting**: SLI highlighted how they are affected by the challenge of video remote interpreting in Ofcom's March meeting with SLI.

An emergency video relay service provides BSL translation and relay facilities for the purposes of requesting and receiving emergency relief.[38] Video remote interpreting is different from video relay interpreting because video remote interpreting involves an individual, remotely or in-situ, acting as an interpreter when both the deaf BSL user and the English language user are present in the same location. Therefore, video relay interpreting becomes video remote interpreting, in this scenario, when the emergency service arrives at the scene of the incident and if the interpreter makes the professional

[34] In addition to the direct impact of nuisance callers on the PCA-5, nuisance callers take up 999 BSL staff time. SLI estimated that, on average, 45 hours per month is spent by interpreters on nuisance calls or administrative tasks related to nuisance callers. Source: Ofcom's March meeting with SLI.
[35] Source: 999 BSL's 2022/2023 Annual Report; 999 BSL's 2023/2024 Annual Report.
[36] In 2024, there were more than 3 times as many calls to 999 BSL which were recorded as nuisance calls compared to good faith calls by hearing people. This is based on an internal analysis conducted on data from 999 BSL's Monthly Performance Reports.
[37] Source: 999 BSL's 2022/2023 Annual Report.
[38] This reflects the wording of the European Electronic Communications Code in which Article 2(38) defines an emergency communication as a "communication by means of interpersonal communications services between an end-user and the Public Safety Answering Point with the goal to request and receive emergency relief from emergency services." See Article 2(38), Directive (EU) 2018/1972 of the European Parliament and the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast), December 2018.

judgement that they need to remain on the call, for example if life-saving care is being given.[39]

SLI highlighted how calls involving video remote interpreting can take longer than video relay calls which can prevent staff from being able to answer other callers. SLI noted that video remote interpreting calls make up approximately 2% of the calls which they receive. [40] We note that this challenge is uniquely faced by an emergency video relay service. SLI said that addressing this challenge would require emergency services having their own video remote interpreting services available. This would then mean that 999 BSL interpreters would be in fewer situations where they need to make the judgement on whether they need to act as a remote interpreter.

SLI have acted to effectively address the challenges they've faced.

In 999 BSL's 2022/2023 and 2023/2024 annual reports, Ofcom-SLI bilateral meetings, and Ofcom's March meeting with SLI, SLI discussed the actions they've taken in response to the challenges detailed previously, these are:

e) **Nuisance callers**

- SLI have collaborated with and continue to collaborate with BT, Emergency Authorities, Ofcom, regulated providers and other stakeholders to agree on the appropriate action to take against nuisance callers.[41]
- SLI has worked with Ofcom and regulated providers to draft a letter which regulated providers can send to warn hearing nuisance callers about the repercussions of continuing to abuse the 999 BSL service[42], in particular the potential for their mobile or broadband contract to be terminated because of their actions.[43]

b) **Hearing callers**

In 999 BSL's 2023/2024 annual report, SLI said:

- They have updated the 999 BSL website to make it clearer that the service is only for deaf BSL users.
- They have conducted an analysis to work out which external websites were commonly directing hearing people to use the service. Based on these results, they followed up with the organisations whose websites' wording needed to reflect more clearly 999 BSL's intended audience.

c) **Interpreter behaviour and training**

In 999 BSL's 2022/2023 annual report, SLI said:

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[39] In the Further Consultation, we state that the emergency video relay supplier will need to develop operational procedures that take account of the needs of deaf end-users and allow interpreters to use their professional judgement about the appropriate point at which to exit an emergency communication once the emergency services have arrived.
[40] Source: Ofcom's March meeting with SLI.
[41] Source: 999 BSL's 2022/2023 Annual Report; 999 BSL's 2023/2024 Annual Report.
[42] Source: 999 BSL's 2023/2024 Annual Report.
[43] If a nuisance caller is in breach of the terms and conditions of the contract they have agreed to when purchasing mobile or broadband services from their network provider.

- They have recruited a lead 999 BSL interpreter whose responsibilities include supporting the other interpreters, ensuring compliance with internal procedures, and identifying and addressing any issues with interpreter performance.
- They have implemented best practices guidance for how interpreters can ensure they are quickly answering calls, for example on how to maintain alertness during extended periods without an incoming call.

d) **General**

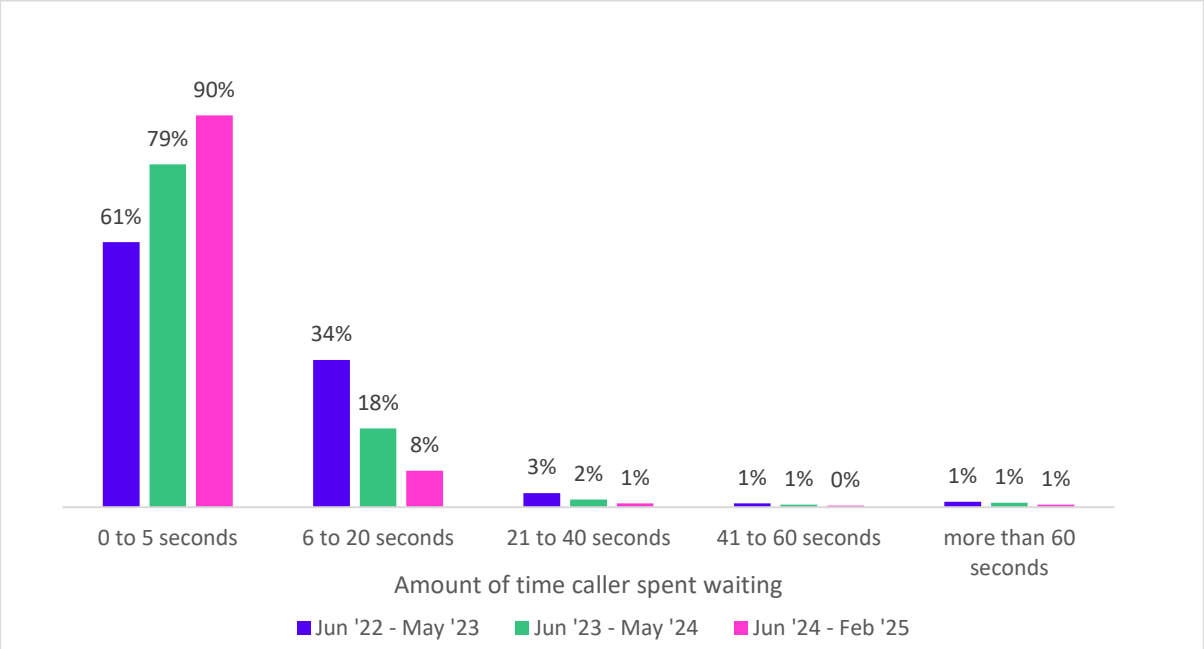
- SLI have implemented technical and procedural changes to allow them to more effectively identify, monitor and address service performance issues. These changes include further developing internal reporting procedures and the creation and maintenance of an action plan.[44]
- From 1 May 2024, SLI increased the number of interpreter staff dedicated to handling 999-BSL calls from two to three.[45] They have also increased the pool of interpreters who, while their dedicated allocation is for another SLI video relay service, can step in to answer 999 BSL calls if the interpreters dedicated to 999 BSL are occupied.[46]

SLI's actions have likely resulted in the significant increase in the PCA-5 percentage over time.

999 BSL's PCA-5 has significantly increased from June 2022 to February 2025, the latest data as of publication. Additionally, figure 8 demonstrates how, after aggregating calls from each year of 999 BSL's service, the percentage of calls answered within 5s by 999 BSL has improved year-on-year. As shown in figure 8, in the third and current year of service 90% of calls have been answered within 5s, an increase from 79% in the previous year and 61% in 999 BSL's first year of service.

[44] Source: 999 BSL's 2022/2023 Annual Report.
[45] Source: Ofcom-SLI bi-lateral meetings.
[46] Source: 999 BSL's 2022/2023 Annual Report; 999 BSL's 2023/2024 Annual Report.

Figure 8 – Distribution of the time calls spent waiting before being answered by 999 BSL

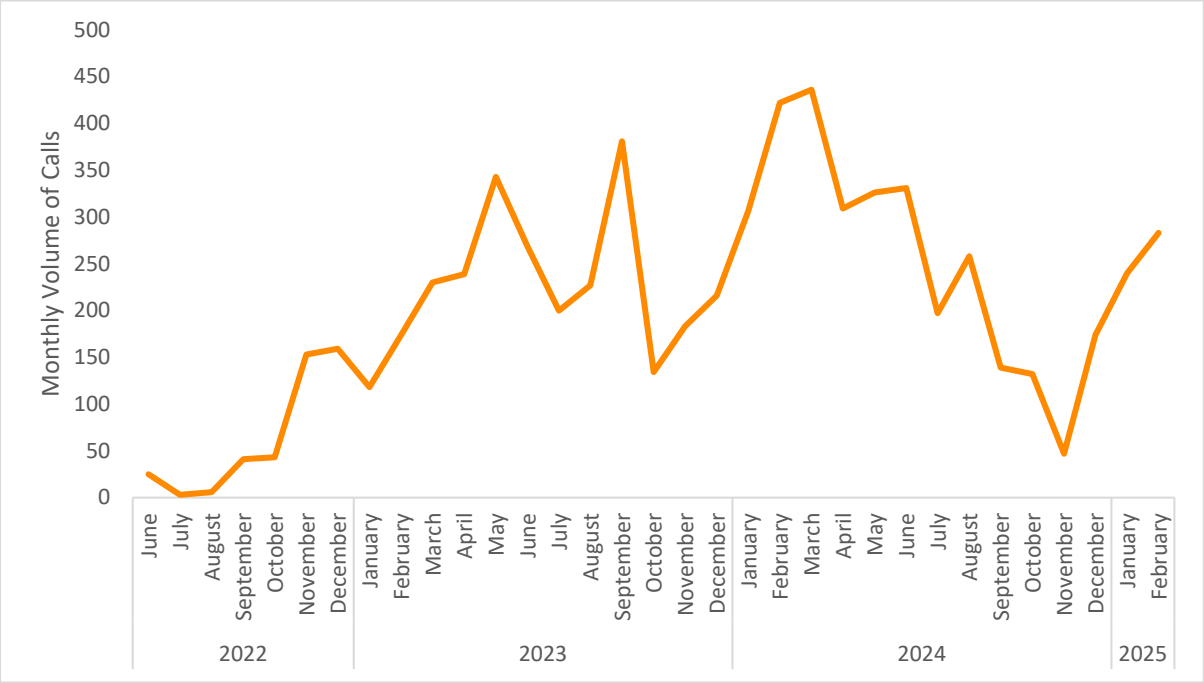


Source: 999 BSL Performance Reports

The service operated particularly poorly in this regard in the first few months of its operation when the PCA-5 remained below 25%. However, a considerable jump in the PCA-5 towards the end of 2022 and a steady increase over time has resulted in the PCA-5 reaching a peak of 91% in January 2025 after having reached and maintained a PCA-5 of 90% in September, November and December 2024. The PCA-5 dropped to 87% in February 2025. We note this drop in the PCA-5 occurs alongside an uptick in the number of nuisance calls, as shown in figure 9.

The improvement in 999 BSL's PCA-5 percentage likely reflects the actions SLI have been taking to address the challenges faced. For example, the significant jump in the PCA-5 percentage from the end of 2022 correlates with SLI implementing changes to their technology and interpreters' behaviour based on learnings from the previous months. Additionally, the actions taken to address nuisance callers have likely contributed to the sustained decrease, as shown in figure 9, in the number of calls made by nuisance callers from February 2024 to late 2024. We note that in recent months the number of nuisance calls has been increasing. Fewer nuisance callers should contribute to improving 999 BSL's PCA-5.

Figure 9 - Monthly volume of calls received by 999 BSL categorised as nuisance calls



Source: 999 BSL Performance Reports

Consumer outcomes from the provision of emergency video relay

Across the consultations and Statement, we said that we expected to see the following benefits from the provision of an approved emergency video relay service:

a) **Benefits from deaths avoided.**

b) **Benefits from quicker emergency responses:** for example, quicker treatment of injuries or illnesses, reduced damage to property (e.g. in relation to fire) and quicker responses from the police.

c) **Benefits to the emergency services** in the form of faster and more accurate calls.

d) **Increased dignity and peace of mind** for deaf BSL users from knowing that video relay for emergency is available, even if they do not need to make an emergency communication.

Across the consultations and Statement, the only benefit we sought to quantify was the benefit from deaths avoided due to the provision of emergency video relay. However, we said that all these benefits were integral to our assessment of the proportionality of the regulation.

Similarly in this evaluation, the only benefit we specifically seek to quantify (with caveats), considering the data we have available, is the benefit from deaths avoided. Our ability to quantify the other benefits is limited by there being a lack of data collected by alternative services on whether a caller is a deaf BSL user or the nature of the emergency situation faced by the caller. There are also significant ethical limitations around surveying users on the outcomes they have faced after using a service to access emergency communications.

In Ofcom's March meeting with SLI, we note that SLI highlighted, based on its own anecdotal evidence from 999 BSL interpreters, the value of the 999 BSL service through it empowering deaf BSL users.

There is evidence that 999 BSL has been successfully used in life-critical incidents

As shown in the case studies below, 999 BSL has been used by deaf BSL users in life-critical incidents.

In a case study from 2022, a deaf BSL user used the 999 BSL app to contact the service after a gas bottle exploded when he was alone in his campervan. The man suffered burns to his head and legs but remarked that his ability to access emergency communications through 999 BSL 'saved [his] life'.[47]

In another case study from 2022, a deaf BSL user contacted HM Coastguard using 999 BSL to report two people being carried out to sea in an inflatable dinghy. The HM Coastguard call operator commented that the situation was communicated quickly enough in the call for a team to rescue the stranded people and prevent serious danger.[48] This case study demonstrates how deaf BSL users' access to emergency video relay can benefit the general population. Deaf BSL users may call in incidents involving themselves or others. We acknowledge that these case studies do not provide enough information to tell us what would have happened in the absence of access to an emergency video relay service. Assessing this would require, for example, understanding whether emergency services would have been contacted in a timely manner by another person present or through the deaf BSL user using an alternative method to contact the emergency service.

Despite this limitation, the case studies illustrate that 999 BSL can be a life-saving tool for deaf BSL users to use, facilitating accurate and timely communication to ensure sufficiently quick emergency response times. 999 BSL's 2023/2024 annual report states that at least seven lives have been saved in incidents where deaf BSL users communicated with emergency services through 999 BSL.[49]

We previously estimated that at least two deaths per year would be avoided due to the emergency video relay service, this is supported by our revised estimation.

Across the consultations and Statement, we estimated that it was likely that at least two deaths per year would be avoided because of the emergency video relay service.[50]

Our estimation in the impact assessment[51] of at least two deaths prevented because of the emergency video relay service was based on the following:

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[47] See BBC News, 999 BSL: 'Emergency video service saved my life', [website accessed: website accessed:07/04/2025].
[48] See HM Coastguard UK, Senior call operator hails new 999 BSL service as 'vital', [website accessed: website accessed:07/04/2025].
[49] This figure is based on a review conducted by SLI on social media and news articles published in the press.
[50] Across the consultations and Statement, our impact assessment's provisional conclusion was that the minimum level of benefits from lives saved would be around £4m per year. This was based on the 2018 figure, £1,958,303, of the average monetary value of a prevented fatality produced by the Department for Transport. We note that this value generally increases each year. For more information, see the 'Average_value' tab in Department for Transport, Cost of prevention of road collisions and casualties, [dataset accessed: 07/04/2025].
[51] For more information on the impact assessment, see Ofcom, Annex 10 – Emergency video relay services, 2019.

- Data on the number of deaf BSL users in the UK.
- Data on the literacy of deaf BSL users and an estimation of how many deaf BSL users may have difficulty using the existing text relay and emergency SMS systems for emergency calls.
- Data on the frequency of emergency calls by the general population (per person, per year) to estimate the possible use made of an emergency video relay service, in particular, relating to Category 1T incidents.

Category 1T incidents are a category in the classification system used by the ambulance service in England to classify the seriousness of the situation. A Category 1 situation is the most serious classification. It relates to a situation where an ambulance is dispatched to incidents involving "people with life-threatening illnesses or injuries" such as cardiac or respiratory arrest and where there is a need for an immediate response. Category 1T situations are those Category 1 incidents involving any patients being transported by an ambulance service emergency vehicle.

In our impact assessment, we used this data to estimate that there would be 90 Category 1T incidents per year involving a deaf BSL user who may have difficulty using the existing text relay and emergency SMS systems for emergency calls ("relevant deaf BSL users"). Based on this figure, we conservatively judged that at least two deaths per year would be (potentially) prevented because of the emergency video relay service.

The revised approach we use in this evaluation makes use of data on the volume of 999 BSL calls connected to emergency services.[52] This data was not available when the impact assessment was calculated because no emergency video relay service had operated. We believe that using this data makes our revised approach more robust. We note that using this data requires amending our approach to estimating the likely number of deaths per year which would be avoided due to the emergency video relay service.[53]

Our revised approach estimates that in 2024 there were 143 calls to 999 BSL which were made by a relevant deaf BSL user and involved a category 1T incident. Therefore, we believe there is sufficient evidence to justify our judgement in the consultations and Statement that at least (but probably more than[54]) two deaths per year would be prevented because of the emergency video relay regulation.[55]

Conclusion

Our evidence suggests that there is significant awareness of and, consequently, engagement with the 999 BSL service.

[52] To ensure greater comparability between the revised approach and impact assessment estimates, any data points used in both the impact assessment and revised approach calculations are consistent across the calculations. For example, 2011 Census data is used in both the impact assessment and revised approach calculations despite 2021 Census data now being available.

[53] For more information on how we calculate the consultations and Statement's approach compared to the revised approach, see Annex A1.

[54] We could reasonably claim that 3-4 deaths were probably avoided. This is closer to SLI's estimate of 7 lives saved. However, in the interest of being conservative and recognising that the wider benefits of emergency video relay go far beyond this monetised figure, we conclude that the evidence supports the original estimate of at least 2 lives saved.

[55] We further tested this judgement by using the latest commensurate data to update estimates for both our impact assessment and revised approach. We found that using the latest data increased both our impact assessment estimate and revised approach estimate.

There is still room for 999 BSL to improve its PCA-5 performance. However, we note the few complaints received by the service, or by regulated providers; the reasonably low median wait times for 999 BSL; and, finally, the efforts taken by SLI to address the challenges they have faced and the evidence suggesting that these measures have successfully improved the PCA-5. We therefore conclude that 999 BSL is moving towards ensuring equivalence of access to emergency communications for deaf BSL users.

Furthermore, the case studies we have examined alongside our revised estimation approach to judge the likely number of deaths prevented by the provision of an emergency video relay service demonstrate that the emergency video relay regulation is delivering beneficial outcomes for deaf BSL users and others.

Therefore, having reviewed the data and information available on the promotion and provision of the emergency video relay service alongside the generated benefits, we believe there is sufficient evidence to demonstrate that the emergency video relay service, 999 BSL, and, consequently, the emergency video relay regulation returns a significant positive impact for deaf BSL users and others.

5. Conclusion

The main objective of the emergency video relay regulation was to ensure that deaf BSL users have equivalent access to emergency communications as other users.

This publication is part of Ofcom's ex post evaluation programme, which seeks to understand the impact of our regulation on consumer and market outcomes, an important aspect of ensuring that Ofcom is delivering for people and businesses in the UK.

Our evaluation shows that the regulation has been successful in delivering a life-saving and essential service for deaf BSL users by providing them with access to emergency services through an emergency video relay service.

Section 3 indicates that the emergency video relay regulation was successfully implemented within the 17 June 2022 deadline. Additionally, our review suggested that while there were some concerns shared about the implementation process, regulated providers are generally positive about the ongoing operation of the emergency video relay service.

As discussed in Section 4, our analysis of the available data and information on the promotion and provision of the emergency video relay service alongside the generated benefits suggested that the emergency video relay service, 999 BSL, despite facing some unique challenges, returns a significant positive impact for deaf BSL users and others which wouldn't exist in absence of the regulation. We also show how SLI has been effectively addressing the challenges which 999 BSL has faced, which should in time ensure equivalence of access to emergency communications for deaf BSL users.

Our ex post evaluation can help inform Ofcom's future regulation. We therefore note some useful learnings which Ofcom could draw from this evaluation:

- Firstly, this is an example of a successful and timely implementation of a regulation by industry. Ofcom required regulated providers to provide or contract to provide emergency video relay but did not mandate how the industry should implement the provision of emergency video relay.
- Secondly, we consider that the unique challenges faced by 999 BSL in meeting the PCA-5 requirement reflect issues which an emergency video relay service may face but 999 Voice, despite having some of the same requirements, may not. For example, while 999 Voice and 999 BSL both face nuisance callers, a single persistent nuisance caller can block the availability of all ringfenced and overflow 999 BSL interpreters to answer calls. The scale of the 999 Voice operations means that a single nuisance caller would not have the same impact. The challenges SLI has faced regarding video remote interpreting also demonstrate this. We therefore note how innovative regulation, like emergency video relay, may require close collaboration between stakeholders and considered efforts over time so that the unique challenges can be addressed to achieve the regulation's policy objectives.

A1. Revised estimation of the benefits of the emergency video relay service

This annex details the calculations underpinning how we quantified some of the benefits to consumers from the emergency video relay service.

In the consultations and Statement we explained that, despite the wider benefits being integral to our overall impact assessment, the only benefit we sought to quantify was the likely deaths avoided due to the emergency video relay service. The evidence presented in the previous sections confirm the wider benefits delivered to deaf BSL users and others, most of which cannot be quantified. This annex details how we used data available after the emergency video relay regulation took effect to more robustly quantify the likely number of deaths prevented by the emergency video relay regulation.

Overview of our approaches to estimating the likely deaths prevented in this evaluation report and the consultations and Statement.

In the consultations and Statement, our approach consisted of the following steps:

- Based on the ONS 2011 Census, **we estimated the number of deaf BSL users in the UK.**
- Based on the ONS 2011 Census, **we considered the literacy of deaf BSL users**. We conservatively estimated how many people may have difficulty using text relay and emergency SMS systems, the alternatives available prior to the emergency video relay regulation taking effect, for emergency calls.
- **We estimated the number of Category 1T incidents in the UK**. We used data on ambulance call-outs in 2018, broken down by incident severity, alongside mid-2018 estimates of the UK population to estimate the number of incidents categorised by the ambulance service as the highest severity per person from the general population.
- **We estimated the number of Category 1T incidents involving deaf BSL users.** These are incidents categorised as the highest severity by the ambulance service which involve a deaf BSL user who may have difficulty using text relay and emergency SMS systems per year; and,
- **We judged that at least two deaths would be prevented each year because of emergency video relay.**

Our revised approach consists of the steps shown below. To ensure greater comparability between the revised approach and impact assessment estimates, any data points used in both the impact assessment and revised approach calculations are consistent across the calculations.

- Based on the ONS 2011 Census, **we considered the literacy of deaf BSL users**. We conservatively estimated how many people may have difficulty using text relay and emergency SMS systems, the alternatives available prior to the emergency video relay regulation taking effect, for emergency calls.
- **We estimated the number of Category 1T incidents in the UK**. We used data on ambulance call-outs in 2018, broken down by incident severity, alongside mid-2018 estimates of the UK

population to estimate the number of incidents categorised by the ambulance service as the highest severity per person from the general population.

- **Using the now available data on 999 BSL calls in 2024, we estimated the number of 999 BSL calls involving category 1T incidents and a deaf BSL user with English literacy difficulties**. We estimated the annual number of 999 BSL calls made by a deaf BSL user who may have difficulty using text relay and emergency SMS systems and is involved in an incident categorised as the highest severity by the ambulance service; and
- **Considering our revised estimation, we reflected on our previous judgment that at least two deaths would be prevented per year because of emergency video relay.**

Number of deaf BSL users in the UK

Estimates of the number of deaf BSL users in the UK vary. In the 2011 census, 22,000 people in England and Wales declared that sign language was their main language, with 15,500 of them declaring that this was specifically BSL. However, we note that the British Deaf Association considers that the census almost certainly undercounted people for whom BSL is a first language.

Scotland and Northern Ireland used different census questions in 2011 from those used in England and Wales, so the data are not directly comparable. For the consultations and Statement, we estimated there were 17,400 BSL users for the UK, which is based on the census figure for England and Wales, uplifted to reflect the population of the UK, bearing in mind that this may be an underestimate.

Literacy of deaf BSL users

Many people whose preferred language is BSL use text-based communications when necessary. However, people who have been deaf from birth can have problems with written English, and this can lead to misunderstandings. People who are in distress are likely to find working in a second language more difficult or at higher risk of errors. In our consultations and Statement, we said that emergency video relay would allow deaf BSL users to use their first language to call for help and to receive advice in emergency situations and therefore likely make emergency communications faster and more accurate for them.

ONS data from the 2011 census suggests that around 65% of people for whom BSL is a main language reported significant difficulty with spoken English and that 40% of them have no qualifications.[56] Although there wasn't an England and Wales Census question about written (as opposed to spoken) English, we understand that many of these deaf BSL users also have problems with reading and writing.

Assuming that 65% of those who use BSL as their main language will have difficulty using the existing text relay system for 999 calls implies that, of the estimated 17,400 BSL users in the UK (based on uplifting to a UK figure from England and Wales census data), around 11,200 individuals will have difficulty using the existing text relay system for 999 calls. These people stand to gain the most from the provision of emergency video relay

[56] In the 2011 Census data, of the 15,475 people in England and Wales who used BSL as their main language at home, 9,986 cannot speak English well or very well. Of the BSL users who were aged over 16 at the time of the census, around 40% had no qualifications in England and Wales.

Number of emergency calls per year

In 2018, there were 31.5 million 999 calls across the UK, of which 20.5 million were connected to the emergency services. Of these 20.5 million, 10.1 million were to the police, 9.5 million to the ambulance service, 892,000 to the fire brigade and 14,800 to the coastguard.[57]

We focussed on calls to ambulance services, as data on the seriousness of the situation is readily available for the ambulance service. The categorisation of calls and associated response targets varies slightly between the nations within the UK. When ambulance incidents are classified in England, the most serious are called Category 1.[58] These relate to when an ambulance is dispatched to incidents involving "people with life-threatening illnesses or injuries" such as cardiac or respiratory arrest and where there is a need for an immediate response.

Within the Category 1 incidents, there is a subset called Category 1T incidents, which are those Category 1 incidents involving any patients being transported by an ambulance service emergency vehicle. Category 1T excludes those incidents where an ambulance clinician on scene determines that no conveyance is necessary, or incidents with non-emergency conveyance. There were around 460,000 Category 1T incidents in England in 2018.[59]

Consultations and Statement approach

In the consultations and Statement, we calculated that the number of Category 1T incidents in England in 2018 represents 0.008 Category 1T incidents per person per year for the general UK population.[60] Assuming this same ratio of Category 1T incidents per person were to apply to those BSL users in the UK who would have difficulty using the existing text relay system for emergency calls ('relevant deaf BSL users'), we said that this would imply around 90 Category 1T incidents per year.[61]

We noted that we wouldn't expect that emergency video relay would make a difference to the number of lives saved for all of these 90 Category 1T incidents.

Firstly, in some of these cases the person needing assistance would anyway not survive, and other incidents may be categorised incorrectly and not actually be life-threatening.[62] Secondly, in some of these situations, there may be a hearing person present as well as the deaf BSL user, and if there were no emergency video relay service, the hearing person could potentially make the emergency ambulance call.

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[57] Source: 999 Liaison Committee

[58] The categorisation of incidents described here is that used in England. There are slight variations in other parts of the UK. The categorisation and targets used in England are described here: NHS England, Ambulance Response Programme, [website accessed:07/04/2025].

[59] See NHS England, AmbSYS Time Series to July 2019, [dataset accessed: 07/04/2025].

[60] This 0.008 incidents per person is calculated as the 460,000 Category 1T incidents in England divided by the 56 million population of England. See ONS, Population estimates, [website accessed:07/04/2025].

[61] This is calculated as 0.008 multiplied by our conservative estimate of around 11,200 BSL users who will have difficulty using the existing text relay system for 999 calls.

[62] There is information on the survival rate for those who were treated by the ambulances services in England for a cardiac arrest out of hospital. Only around 10% of those affected were ultimately discharged alive from hospital in 2018. However, such incidents will make up a small part of the total number of Category 1T incidents. There were 460,000 Category 1T incidents in England in total in 2018, but only around 30,000 people were treated by the ambulance services for a cardiac arrest out of hospital. We are not aware of information on survival rates more generally for Category 1T incidents. For information on cardiac arrests, see NHS England, AmbSYS Time Series to July 2019, [dataset accessed: 07/04/2025].

Nevertheless, of these potential 90 Category 1T incidents, there are likely to be some situations where only a deaf BSL user is present or they are best placed to call the emergency services, and where there might be a considerable delay if they were not able to do so, and where access to an emergency video relay service could make the difference between life and death.

Considering specifically the likely volume of Category 1T ambulance incidents, we judged that at least two fatalities could be avoided per year because of the existence of the emergency video relay service, and the number of deaths prevented might be much higher than this.

Revised approach based on actual call volumes

In the revised approach, we directly estimate the annual volume of 999 BSL calls made by relevant deaf BSL users which are likely to involve Category 1T incidents. We believe that using actual data on 999 BSL call volumes helps to ensure a more robust estimation compared to the impact assessment. To use this data, we need to employ a different estimation methodology to the impact assessment as detailed below.

In 2024, there were 8,281 calls connected by 999 BSL to the emergency services.[63] We estimate that around 5,300 calls were made to 999 BSL which were connected to emergency services and were made by relevant deaf BSL users who may have difficulty using text relay for 999 calls.[64]

The Category 1T classification is currently only used by NHS England. As we previously calculated for the impact assessment approach, the number of Category 1T incidents in England in 2018 represents 0.008 Category 1T incidents per person per year for the general UK population.[65] We therefore estimate that there were around 550,000 incidents that could be classified as Category 1T across the UK in 2018. We assume that one Category 1T incident maps to one call which is connected to an emergency service through 999. Based on our estimation of the number of 999 Voice calls involving Category 1T incidents and the number of 999 Voice calls connected to emergency services in 2018, we estimate that approximately 3% of 999 Voice calls connected to emergency services involved a Category 1T incident.

Assuming that the proportion of 999 Vocie calls involving Category 1T incidents holds for 999 BSL calls, we estimate that 999 BSL receives 143 calls by a relevant BSL user which involves a Category 1T ambulance incident.[66]

We believe that we can be more confident, compared to the Consultations and Statement estimate, that of our estimated 143 Category 1T 999 BSL calls per year a higher proportion would involve a case where a death prevented has been prevented because of the availability of emergency video relay. This is because:

- In the consultations and Statement, we could only assume that a deaf BSL user faced by a Category 1T incident will use the 999 BSL service instead of an alternative. However, we

[63] Source: 999 BSL Performance Reports.
[64] This is calculated by multiplying 8,281 (the number of 999 BSL calls connected to emergency services in 2024) by 65% (the proportion of relevant deaf BSL users for whom BSL is the main language).
[65] For both the impact assessment approach and the revised approach, we use the 999 Call Volumes data for 2018, and Office for National Statistics' population estimates from mid-2018, to ensure greater comparability between our estimates.
[66] This is calculated by multiplying the estimated number of calls made to 999 BSL which were connected to emergency services and were made by relevant deaf BSL users who may have difficulty using the existing text relay system for 999 calls, 5,344, by the estimated percentage 999 BSL calls which were connected to emergency services and involved a Category 1T incident, 2.67%.

don’t need to make this assumption in our revised approach because it is based on actual 999 BSL call volumes.

- In the consultations and Statement estimate, a deaf BSL user may be present during the Category 1T incident but not be responsible for calling the emergency services. By using the actual data on call volumes, we can be more confident that a deaf BSL user made the call to the emergency service.

Given our revised estimate, we believe there is sufficient evidence to justify our judgement in the consultations and Statement that at least two deaths per year would be prevented because of the emergency video relay regulation.