2024 Herman Goldstein Award for Excellence in Problem-Oriented Policing

Dementia Safeguarding Scheme

Inspector Stuart King

Avon and Somerset Police

UK

Summary:

The Avon and Somerset Dementia Safeguarding Scheme, launched in 2015 under the leadership of Inspector Stuart King, stands as an exemplary model of proactive community-focused policing. Employing the SARA Problem-Solving Model, the scheme addresses the critical issue of missing persons with dementia through strategic interventions informed by thorough statistical analysis.

During the initial scanning phase in 2015, a significant increase in missing person reports involving individuals with dementia was identified, prompting the need for intervention. Analysis revealed the cost-intensive nature of search operations, with each high-risk missing person case averaging £2,500.

Statistics from the NCA (National Crime Agency) evidenced that between 2019 and 2020 there were 2,158 missing incident recorded across England and Wales, equating to 2.7% of missing incidents. This figure is thought to be a conservative figure and not a true reflection of the actual problem due to the way dementia is identified and recorded against a missing incident.

In 2023-24, an external review by Professor Michael Hornberger, who is a professor or Dementia in the University of East Anglia found that the NFC element of the Dementia Safeguarding Scheme was 80.38% successful in preventing people living with Dementia become missing. This is an estimated potential saving of £1,657,500 for individuals who did not go missing, highlighting the scheme's financial saving implications.

In response to these concerns, the scheme implemented a multifaceted approach. GPS tracking pendants were allocated to high-risk individuals, enabling real-time monitoring of their location and reducing missing person incidents by up to 96% from 2022 onwards. Additionally, NFC assistance devices, including wristbands, hangtags and lanyards were provided to individuals and organizations, empowering individuals, and minimising the need for immediate police intervention. The Herbert Protocol facilitated the recording of vital information online, ensuring its accessibility during missing person searches.

Assessment of the scheme's impact revealed substantial cost savings potentially exceeding £1.5 million and tangible reductions in missing person incidents. National and international recognition, including awards from industry leaders in technology and national dementia charities, underscored

the scheme's effectiveness and innovation. Overall, the Avon and Somerset Dementia Safeguarding Scheme exemplifies the power of proactive, data-driven policing in addressing complex societal challenges and enhancing public safety.

SARA Model

Scanning:

The Avon and Somerset Dementia Safeguarding Scheme was initiated in response to a critical issue identified through thorough scanning and analysis. An alarming trend was identified which evidenced an increase in missing person reports involving individuals living with dementia. This posed significant safety risks to vulnerable individuals and placed a substantial demand on policing resources. The problem was identified by Inspector Stuart King, who recognised the need for a proactive approach to safeguarding individuals with dementia in the community. This problem was selected for special attention due to its severity and increasing prevalence, as well as Inspector King's own experiences of attending incidents involving people living with Dementia, whilst he worked as a Neighbourhood Police Officer in Bristol, England.

The initial level of diagnosis involved analysing historical data on missing person incidents involving individuals with dementia. This data provided insights into the frequency, patterns, and associated costs of such incidents. The problem was identified through collaboration between police missing person managers, officers, and community stakeholders (such as charities and carers), who observed the escalating trend and its detrimental effects on individuals and families affected by dementia.

Analysis:

To analyse the problem comprehensively, various methods, data sources, and information were utilised. Historical records of missing person incidents were examined to understand the frequency, duration, and geographical distribution of these incidents. Cost analysis was conducted to quantify the financial burden associated with search operations and resources expended in responding to missing person reports. An external review by Professor of Dementia Michael Hornberger of Norwich medical school, provided an external independent scientific study of the scheme which provided an insight into the potential cost savings that could be realised through effective intervention.

The problem of missing persons with dementia persisted over the years, with individuals, families, and communities experiencing significant distress and harm as a result. People living with of dementia faced increased risks of injury through 'wandering episodes', there are other associated risks of harm through periods of confusion, while families endured emotional stress associated with search operations. Before the implementation of the safeguarding scheme, responses to missing person incidents involving individuals with dementia were primarily reactive, relying on traditional search and rescue methods. These responses could take much longer, which contribute to incurred substantial costs for policing agencies and most importantly, greater risk to the person living with dementia who is missing.

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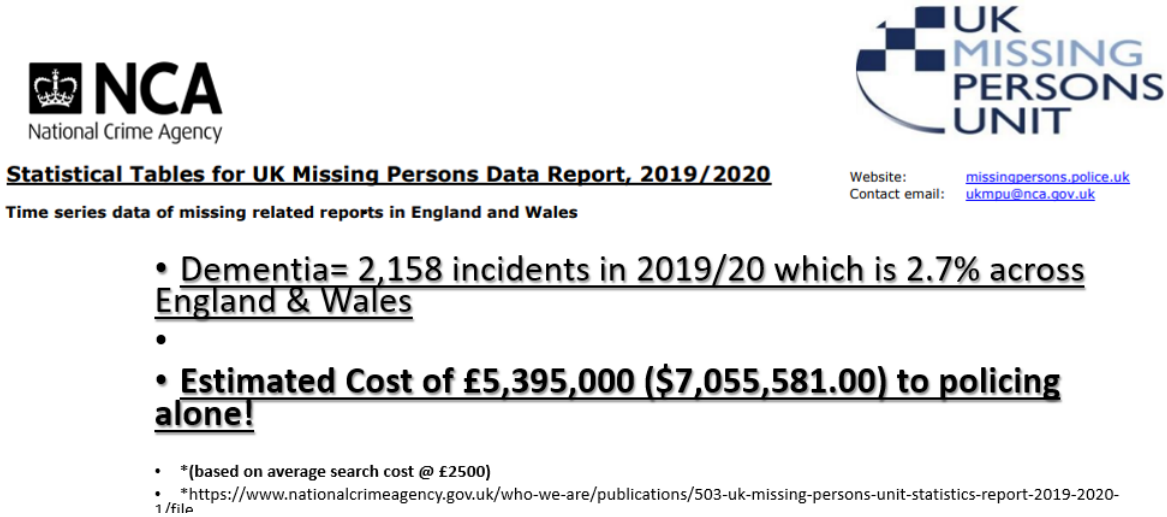
to the way dementia is identified and recorded against a missing incident.



The analysis revealed the nature and extent of the problem, highlighting the need for proactive, preventive measures to address the underlying causes and risk factors contributing to missing person incidents involving individuals with dementia. Additionally, the analysis underscored the importance of community perspectives in understanding the impact of the problem and identifying effective solutions.

Response:

In response to the pressing issue of missing person incidents involving individuals with dementia, the Avon and Somerset Dementia Safeguarding Scheme was established with clearly defined objectives. The primary aim of the scheme was twofold: to decrease the frequency of missing person incidents among people living with dementia and to optimise the allocation of resources within policing. To achieve these objectives, a variety of response strategies were considered, resulting in the implementation of:

1. GPS tracking pendants
2. NFC assistance devices
3. Introduction of the Herbert Protocol
4. initiation of community engagement initiatives such as the 'Avon and Somerset Dementia Forum

The response strategies were informed by a thorough analysis of the underlying causes and risk factors contributing to missing person incidents involving individuals with dementia.

Funding throughout the entirety of the scheme has been sourced from external sources- predominantly water and power companies located in the Southwest of England. This has been integral to the success of the scheme and has enabled the purchase of thousands of NFC devices and a smaller number of GPS tracking devices, with sponsorship funding exceeding £18,000. Inspector King performs his role of overseeing and implementing the Dementia Safeguarding Scheme voluntarily in addition to his core role.

GPS tracking pendants were designated for individuals deemed to be at the highest risk of wandering, enabling real-time monitoring and location tracking.

NFC assistance devices, consisting of wristbands, hangtags, and lanyards attached to a glow-in-the-dark NFC device , were allocated to both individuals and organisations to expedite identification by people assisting a person living with Dementia and aid in the event of a missing person incident. The NFC devices initially were just a wristband but have since been redesigned and adapted in response to feedback from wearers, carers and the professionals. This has resulted in the 4th generation of devises consisting of a wristband, hang-tag, glow-in-the-dark card which attaches to a lanyard.

Through the various re-design phases of the NFC devices, additional improvements have been introduced. This includes the introduction of QR code technology, which when scanned will direct to a video of Inspector King explaining the viewer what the device is, how to scan the NFC chip and what action to take. QR technology was added as a result of direct feedback from the public and police which identified limited knowledge of NFC technology and how it worked, but conversely, widespread knowledge of QR technology and how to perform scanning from a phone. How to scan a device on Vimeo

All 3rd generation and onward devices are now pre-loaded with a URL address. This means that if a NFC device is not programmed by a carer, anyone scanning the device of a person they are assisting, will be directed to a reassurance and advice video from Inspector King. Programming the NFC Assistance Device Programming the NFC Assistance Device (vimeo.com)

This measure was taken due to a couple of live incidents which involved members of the public and police scanning NFC devices which hadn't been programmed and thus returned a blank screen.

Interactive posters have also been created to raise awareness of the Dementia Safeguarding Scheme and also utilise a QR code which directs straight to the on-line Herbert Protocol application form. Register for the Dementia Safeguarding Scheme | Avon and Somerset Police

A programming instruction guide was produced to allow carers to programme the NFC devices. Initially Inspector Stuart King would process each application and programme the devices before posting them out. However, as the scheme grew in demand (over 1,200) it became un-manageable to post out pre-programmed devices. The programming guide is now into its second iteration and has proven very successful with minimal requests for assistance. The guide is posted out long with a letter from Inspector King which explains what the NFC devices are and how he can be contacted if people need assistance with programming or have any questions, queries or suggestions.

The Avon and Somerset Dementia Safeguarding Scheme also integrated the Herbert Protocol into its response framework to further enhance its effectiveness. The Herbert Protocol, named after George Herbert, a war veteran who went missing from his care home in the United Kingdom, streamlines the process of gathering essential information about individuals with dementia to facilitate search efforts. This protocol involves the completion of a form containing crucial details about the individual, including their physical description, medical history, daily routine, preferred locations, and any known triggers or behaviours.

Within the context of the Avon and Somerset Dementia Safeguarding Scheme, the Herbert Protocol served as a valuable pre-emptive tool for capturing essential information about individuals with dementia. Caregivers, family members, and the individuals themselves were encouraged to complete the Herbert Protocol form via the Avon and Somerset website through a bespoke on-line form. This

information can then be readily accessed in the event of a missing person incident, streamlining search and rescue operations and increasing the likelihood of a positive outcome.

The Herbert Protocol form also encompasses the NFC device application- a simple order form is at the end of the on-line document and is processed by police staff.

The integration of the Herbert Protocol into the response strategy is targeted to improve the Avon and Somerset Police capacity to locate and safely recover missing individuals with dementia. By ensuring that search efforts were guided by accurate and up-to-date information, the protocol target is to significant increase the chances of a successful outcome. Moreover, the Herbert Protocol emphasized the importance of community engagement and collaboration in safeguarding vulnerable individuals. By actively involving caregivers and family members in the documentation process, the scheme fostered a sense of collective responsibility for the well-being and safety of individuals with dementia within the community.

Overall, the incorporation of the Herbert Protocol into the response phase of the Avon and Somerset Dementia Safeguarding Scheme underscores the scheme's commitment to leveraging innovative tools and strategies to address complex social challenges. By integrating the protocol into its approach, Avon and Somerset Police also demonstrate a proactive and holistic approach to safeguarding individuals with dementia and enhancing community safety.

In addition to the successful integration of the Herbert Protocol, the response phase of the Avon and Somerset Dementia Safeguarding Scheme involved collaboration with various stakeholders, including police personnel, community organisations, technology providers, and individuals living with dementia and their families. Multiple factors, such as legality, community values, potential effectiveness, cost-effectiveness, and practicality, were considered when selecting response strategies. Furthermore, the implementation of the response plan was accompanied by ongoing communication, training, and support for all stakeholders involved.

Publication of the Dementia Safeguarding Scheme has been key to its success. Appearances on mainstream media such as the BBC and Sky news have significantly increased awareness, this has also been accompanied with publication on social media and direct presentations to Dementia support groups and care providers.

The positive outcomes of the Avon and Somerset Dementia Safeguarding Scheme have been recognized through a series of prestigious awards, including:

National and International Recognition (Awards)

1. In October 2022 Avon and Somerset Police were recognised by the Bristol Dementia Action Alliance charity and awarded Silver Status as a Proud Dementia Aware Organisation.

2. In March 2023 Avon and Somerset Police were recognised by HMICFRS in the PEEL report for good working practice with partners to protecting vulnerable people living with dementia.

3. In April 2023 Avon and Somerset Police were the Winner of the National Alzheimer’s Society Awards for being the Largest Dementia Friendly Business nationally.

4. Also in April 2023 at the same awards Inspector Stuart King was joint Winner of the National Alzheimer's Society Awards for his Research and Innovation into Dementia as recognition for his work in establishing and running the Dementia Safeguarding Scheme since 2015 and assisting other forces and organisations to adopt the same scheme.

5. In May 2023 Avon and Somerset Police was the Winner of the RDID Best RFID/IOT (other industry) at the prestigious RFID Live trade awards in the USA for their use of GPS and NFC technology to protect and safeguard people living with Dementia

6. September 2023 Avon and Somerset Police were recognised for the second year running by the Bristol Dementia Action Alliance charity and awarded Silver Status as a Proud Dementia Aware Organisation.

7. September 2023 Inspector Stuart King awarded 'Gold Status' by the Bristol Dementia Action Alliance charity for the on-going work overseeing the Dementia Safeguarding Scheme.

8. October 2023 Avon and Somerset Police shortlisted for the Kings Award for Innovation.

These awards underscore the scheme's effectiveness and innovation in addressing the complex challenges associated with dementia and missing person incidents.

Assessment:

The assessment phase focused on evaluating the effectiveness and impact of the implemented responses in addressing the identified problem. Response goals and objectives were regularly monitored and evaluated to assess progress and outcomes. The effectiveness of the responses was measured through various indicators, including the reduction in missing person incidents, cost savings, and community feedback.

Response goals and objectives were achieved, with an 80% reduction in missing person incidents involving individuals with dementia since the inception of the NFC element of the Dementia Safeguarding Scheme. This reduction translated into substantial potential cost savings for policing alone, estimated to be exceeding £1.5 million (if every individual signed up to the scheme had otherwise gone missing at least on one occasion). The impact of the implemented responses was measured through statistical analysis, cost-benefit analysis, and community feedback mechanisms.

This cost saving is identified from the external review by Professor Michael Hornberger (Professor of Dementia Research Norwich Medical School). During 2023/24, the saving for the 663 people who did not go missing (out of the 846), is estimated to potentially be £1,657,500.

This figure is based on the average high-risk missing person search costing around £2,500 per search and on the basis that all of those 846 would have resulted in a high-risk search. Even if 50% had resulted in a high-risk search, this would still be a saving of £828,750.

The evaluation of the problem-solving effort was conducted periodically to assess effectiveness and identify areas for improvement. Evaluation activities included data analysis, stakeholder interviews, and feedback to gather information on the outcomes and impacts of the responses. This process ensured a comprehensive and objective assessment of the scheme's effectiveness both internally by Police staff as well as externally through an independent assessment by a leading Professor in Dementia research, Prof' Michael Hornberger.

Challenges encountered during the implementation of the response plan included resource constraints, technological complexities, and logistical issues. These challenges were addressed through ongoing communication, collaboration, and adaptation of strategies to overcome barriers and obstacles. Examples of this include the continual development and assessment of the NFC device technology, resulting in 4 generations being created. Also the introduction of QR technology, integrated URL and effective glow-in-the-dark cards.

Interactive posters, programming guides and on-line and in person content have all assisted in raising awareness and participation in the scheme.

Extract from the independent assessment by Professor Michael Hornberger's, University of East Anglia Medical School:

846 individuals with a dementia diagnosis take part in the Dementia Safeguarding Scheme (Table 1), of those 663 (80.38%) did not go missing and 183 (19.34%) went missing. Most individuals within the program have no recorded history of going missing (78.72%), with 180 individuals having a previously recorded missing incident (21.28%). Of the individuals who have a history of going missing, 148 recorded a missing incident before joining the Dementia Safeguarding Scheme (82.22%), and 60 recorded a missing incident after joining the program (33.33%). 148 participants were there re classified as high-risk whilst 698 were classified as low-risk.

Table 1. The demographic characteristics of individuals	
Variable:	Total:
Number of participants in program	846
Average age of participants (SD)	80.96 (6.75)
Average duration spent in the program at time of census (SD)	496.09 (1555.37)
Participants missing 1st time before the program	113
Participants missing 1st time after the program	27
Participants missing before and after joining the program	26
Alzheimer's disease (missing)	311 (67)
Vascular dementia (missing)	195 (41)
Mixed dementia (missing)	175 (40)
Unspecified dementia (missing)	110 (30)
Frontotemporal dementia (missing)	28 (4)
Dementia with Lewy bodies (missing)	20 (1)
Parkinson's dementia (missing)	7 (0)

The majority of individuals who went missing before the scheme did not go missing after joining (66.67%), followed by individuals who did not go missing before joining the scheme but went missing afterwards (17.78%), and individuals who went missing before and after joining the scheme (15.56%).

The majority of individuals who take part in the safeguarding scheme have a diagnosis of Alzheimer's disease (36.76%), followed by Vascular dementia (23.05%), Mixed dementia (20.69%), an unspecified dementia diagnosis (13.00%), Frontotemporal dementia (3.31%), Dementia with Lewy Bodies (2.36%), and Parkinson's dementia (0.83%) – see Figure 1.

Of the high-risk group, the majority of individuals had Alzheimer's disease (35.81%), followed by Vascular dementia (25.00%), Mixed dementia (20.95%), Unspecified dementia (16.89%), and Frontotemporal dementia (1.35%).

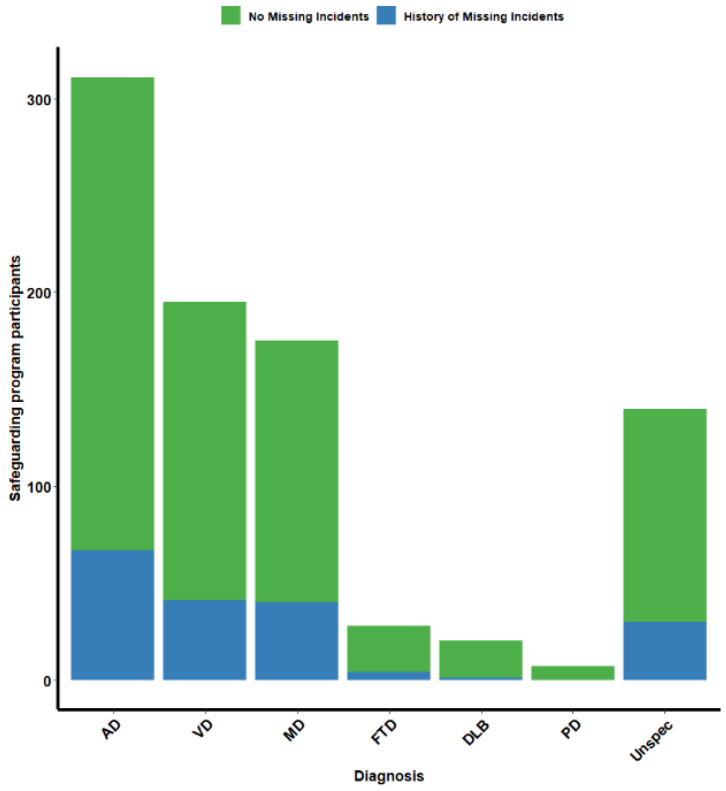
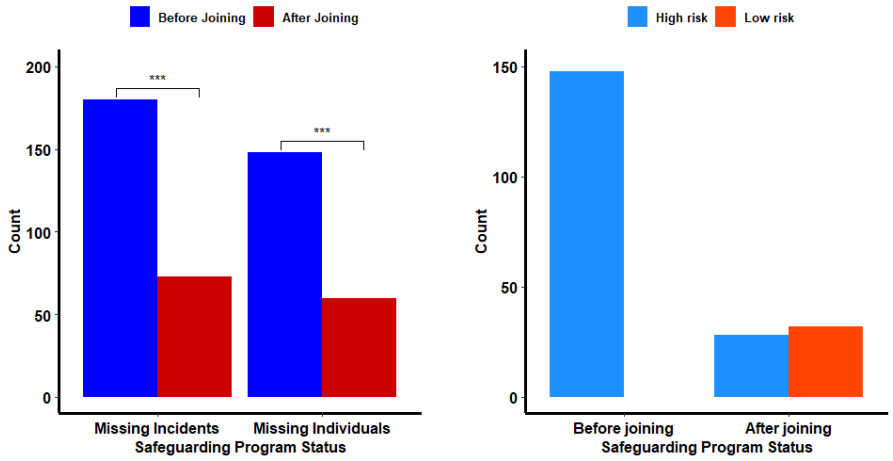


Figure 1. Showing the number of participants in the Dementia Safeguarding Scheme split by diagnosis. Green bars indicate no previous missing incidents (low risk); Blue bars indicate previous missing incidents (high-risk). AD = Alzheimer's disease; VD = Vascular dementia; MD = Mixed dementia; FTD = Frontotemporal dementia; DLB = Dementia with Lewy Bodies; PD = Parkinson's disease dementia; Unspec = Unspecified diagnosis.

Does the Dementia Safeguarding Scheme improve safeguarding by reduce going missing incidences in people with dementia?

Within the overall sample**, statistically significant less missing incidents took place after joining the Dementia Safeguarding Scheme (*M* = 0.09, SD = 0.34)** than before the scheme (*M* = 0.21, SD = 0.52), $t(1453) = 5.937$, $p < .001$. This was maintained when taking into

account only individuals who joined the safeguarding program at least one year prior to the data census, $t(838.55) = 3.957$, $p < .001$ – see Figure 2 (left figure).



joining the Dementia Safeguarding Scheme (Left graph = whole sample of Dementia Safeguarding Scheme participants, Right graph = Dementia Safeguarding Scheme participants categorised by risk status)

In conclusion, the Avon and Somerset Dementia Safeguarding Scheme exemplifies the successful application of the SARA problem-solving model in addressing a complex and pressing issue facing policing, partners and communities. Through thorough scanning, analysis, response, and assessment, the scheme has achieved significant reductions in missing person incidents involving individuals living with dementia while optimising resource allocation and enhancing community safety and well-being. The scheme's success underscores the importance of proactive, evidence-based approaches to problem-solving and the value of collaboration and partnership in addressing complex social issues.

References:

- HM Inspectorate of Constabulary and Fire & Rescue Services (HMICFRS) PEEL Assessments
- National Alzheimer's Society Awards Ceremony Records
- RFID Journal (www.rfidjournal.com)
- Independent paper by Professor Michael Hornberger, University of East Angla Medical School
- NCA crime data

Key Project Team Members: Inspector Stuart King

Project Contact Person.

Name: Stuart King

Position/Rank: Inspector

END

Appendices:

Dementia Safeguarding Scheme

DEMENTIA SAFEGUARDING SCHEME - IMPACT ASSESSEMENT

INSPECTOR STUART KING – AVON & SOMERSET POLICE;PROF MICHAEL HORNBERGER & MR SOL MORRISSEY – NORWICH MEDICAL SCHOOL, UNIVERSITY OF EAST ANGLIA

Background

Missing incidents are highly prevalent in dementia, with ~40,000 people with dementia getting lost for the first time in the UK per year. Such missing incidents can have significant consequences for people with dementia, as they can lead to harm or even death due to mostly exposure and dehydration. At the same time, missing incidents have been shown to cause some of the highest

distress in carers and family members. It is, therefore, not surprising that repeated missing incidents lead to a seven-fold increase in care institution admissions of people with dementia, since the family cannot guarantee their safeguarding anymore. At the same time, the independence/autonomy of the person with dementia is severely affected, as they are often not allowed out anymore by themselves or are placed within a care institution. Allowing people with dementia to stay longer independent but safe at home is not only a key priority of the people with dementia and their families but also of the government (see Chief Medical Officer Prof Sir Chris Whitty's 2023 report). There is, therefore, an urgent need to have safeguarding schemes in place, which allow people with dementia to remain independent but safe.

Avon & Somerset police has been at the forefront of the dementia safeguarding for many years with their Dementia Safeguarding Scheme. The Avon and Somerset Dementia Safeguarding Scheme, launched in 2015 under the leadership of Inspector Stuart King, stands as an exemplary model of proactive community-focused policing. Employing the SARA Problem-Solving Model, the scheme addresses the critical issue of missing persons with dementia through strategic interventions informed by thorough statistical analysis. During the initial scanning phase in 2015, a significant increase in missing person reports involving individuals with dementia was identified, prompting the need for intervention. Analysis revealed the cost-intensive nature of search operations, with each high-risk missing person case averaging £2,500.

In response to these concerns, the scheme implemented a multifaceted approach. GPS tracking pendants were allocated to high-risk individuals, enabling real-time monitoring of their location and reducing missing person incidents by up to 96% from 2022 onwards. Additionally, NFC assistance devices, including wristbands and hangtags, were provided to individuals and organizations, empowering individuals and minimizing the need for immediate police intervention. The Herbert Protocol facilitated the recording of vital information online, ensuring its accessibility during missing person searches.

The Dementia Safeguarding Scheme has 4 key threads:

1. GPS tracking pendants
2. NFC assistance devices
3. Introduction of the Herbert Protocol
4. Initiation of community engagement initiatives such as the 'Avon and Somerset Dementia Forum'

GPS tracking pendants were designated for individuals deemed to be at the highest risk of wandering, enabling real-time monitoring and location tracking. NFC assistance devices, such as wristbands, hangtags, and lanyards, were distributed to both individuals and organizations to expedite identification and aid in the event of a missing person incident. The NFC devices initially were just a wristband but have since been redesigned and adapted in response to feedback from wearers, carers and the professionals. This has resulted in the 4th generation of devises consisting of a wristband, hang-tag and a glow-in-the-dark card which attaches to a lanyard.

Through the various re-design phases of the NFC devices, additional improvements have been introduced. This includes the introduction of QR code technology, which when scanned will direct to a video of Inspector King explaining to the viewer what the device is, how to scan the NFC chip and

what action to take. QR technology was added as a direct feedback from the public and police due to limited knowledge of NFC technology and how it worked, but conversely widespread knowledge of QR technology and how to perform scanning from a phone. All 3rd generation and onward devices are now pre-loaded with a URL address. This means that if a NFC device is not programmed by a carer, anyone scanning the device of a person they are assisting will be directed to a reassurance and advice video from Inspector King. This measure was taken due to a couple of live incidents which involved members of the public and police scanning NFC devices which hadn't been programmed and thus returned a blank screen.

Interactive posters have also been created to raise awareness of the Dementia Safeguarding Scheme and also utilise a QR code which directs straight to the on-line Herbert Protocol application form. On-line Herbert Protocol (https://www.avonandsomerset.police).

The Avon and Somerset Dementia Safeguarding Scheme also integrated the Herbert Protocol into its response framework to further enhance its effectiveness. The Herbert Protocol, named after George Herbert, a war veteran who went missing from his care home in the United Kingdom, streamlines the process of gathering essential information about individuals with dementia to facilitate search efforts. This protocol involves the completion of a form containing crucial details about the individual, including their physical description, medical history, daily routine, preferred locations, and any known triggers or behaviours. Within the context of the Avon and Somerset Dementia Safeguarding Scheme, the Herbert Protocol served as a valuable pre-emptive tool for capturing essential information about individuals with dementia. Caregivers, family members, and the individuals themselves were encouraged to complete the Herbert Protocol form via the Avon and Somerset website through a bespoke on-line form. This information can then be readily accessed in the event of a missing person incident, streamlining search and rescue operations and increasing the likelihood of a positive outcome.

Avon and Somerset Police are a leading force in providing this form in an interactive on-line form. The information is uploaded and following assessment, allows instant access to Police Officers and staff through a flagging alert system linked to an individual's name and/or address on the force command and control and crime system. Research has found other Police forces ask the family/next of kin to print off a paper copy of the Herbert protocol and present it to the attending Officer, if the person goes missing. This poses a real risk of hampering the effectiveness of this system as it relies on the person making the missing report both remembering that there is a paper copy of the Herbert Protocol and being able to locate it, at what would be a very distressing time.

The Herbert Protocol form also encompasses the NFC device application- a simple order form is at the end of the on-line document and is processed by police staff. The integration of the Herbert Protocol into the response strategy bolstered the Avon and Somerset Police Force's capacity to locate and safely recover missing individuals with dementia. By ensuring that search efforts were guided by accurate and up-to-date information, the protocol significantly increased the chances of a successful outcome. Moreover, the Herbert Protocol emphasized the importance of community engagement and collaboration in safeguarding vulnerable individuals. By actively involving caregivers and family members in the documentation process, the scheme fostered a sense of collective responsibility for the well-being and safety of individuals with dementia within the community. Overall, the incorporation of the Herbert Protocol into the response phase of the Avon and Somerset Dementia Safeguarding Scheme underscores the scheme's commitment to leveraging innovative tools and strategies to address complex social challenges. By integrating the protocol into its approach, Avon and Somerset Police also demonstrate a proactive and holistic approach to safeguarding individuals

with dementia and enhancing community safety. The success of the Avon and Somerset Dementia Safeguarding Scheme is further underlined by national and international awards, including:

1. October 2022 - Avon and Somerset Police were recognised by the Bristol Dementia Action Alliance charity and awarded Silver Status as a Proud Dementia Aware Organisation.
2. March 2023 - Avon and Somerset Police were recognised by **HMICFRS** in the PEEL report for good working practice with partners to protecting vulnerable people living with dementia.
3. April 2023 - Avon and Somerset Police were the Winner of the **National Alzheimer's Society Awards** for being the Largest Dementia Friendly Business nationally.
4. April 2023 - at the same awards Inspector Stuart King was joint **Winner of the National Alzheimer's Society Awards for his Research and Innovation into Dementia** as recognition for his work in establishing and running the Dementia Safeguarding Scheme since 2015 and assisting other forces and organisations to adopt the same scheme.
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8. October 2023 - **Avon and Somerset Police shortlisted for the Kings Award for Innovation (results to be released in May 2024).**

The current impact assessment examines existing data on people with dementia before and after they were signed up for the Avon and Somerset Dementia Safeguarding Scheme to determine whether the scheme potentially reduce missing/getting lost episodes in people with dementia and in turn improve their safeguarding.

Methods

Initial conversations between Prof Michael Hornberger (Norwich Medical School) and Inspector Stuart King (Avon & Somerset police) lead to an official collaborative project to investigate the impact of the Dementia Safeguarding Scheme on missing incidents. Ethical approval for the research was received from the University of East Anglia Faculty of Medicine & Health Sciences Ethics panel. For the research, Avon & Somerset police provided us data for 846 individuals with a dementia diagnosis who took part in their Dementia Safeguarding Scheme between October 2020 and June 2023. For the analyses, we first established how many people went overall missing during the time period and which type of diagnosis people had. For the actual analyses, we only included participants diagnosed

with Alzheimer's disease, Vascular dementia, or Mixed dementia (a combination of Alzheimer's disease and Vascular dementia), since the other groups (frontotemporal dementia, dementia with Lewy bodies, Parkinson's disease dementia) had very low numbers overall and for missing incidents. We also excluded unspecified diagnosis to make sure that our results were specific to the main dementia syndromes.

We split the included participants into high and low risk safeguarding groups. Participants were categorised as high-risk safeguarding by having a previous history of at least one going missing incident before joining the Dementia Safeguarding Scheme. Low-risk safeguarding participants were classified as having no previous history of going missing before joining the Dementia Safeguarding Scheme. Note: the high-risk group informs as to whether the Dementia Safeguarding Scheme reduces safeguarding risk, while the low-risk group informs as to whether Dementia Safeguarding Scheme potentially prevents safeguarding incidents.

Statistical analyses were conducted to compare differences in missing incident characteristics between before and after joining the safeguarding scheme. Paired sample t-tests and chi-square tests were used to assess differences in total number of missing incidents, independent sample t-tests were used to assess differences in hours missing. Fisher's Exact Test was used to assess differences in locations missing or locations found due to small sample frequencies within public, care home, and hospital groups. Kruskal-Wallis rank sum tests were used to assess number of missing incidences across diagnosis groups. For the post-hoc analysis, we assessed how time spent in the program interacted with missing incidents. Firstly, we repeated our analysis of assessing the number of missing incidents and the number of individuals who go missing, considering only individuals who had joined the safeguarding program at least one year prior to data census collection which took place on 08/06/2023. This was to assess whether the significant results within the main sample were not confounded by time bias, as individuals who joined the program closer to the data census will have spent less time in the program than those who joined earlier.

Results:

Who took part in the Dementia Safeguarding Scheme?

846 individuals with a dementia diagnosis take part in the Dementia Safeguarding Scheme (Table 1), of those 663 (80.38%) did not go missing and 183 (19.34%) went missing. Most individuals within the program have no recorded history of going missing (78.72%), with 180 individuals having a previously recorded missing incident (21.28%). Of the individuals who have a history of going missing, 148 recorded a missing incident before joining the Dementia Safeguarding Scheme (82.22%), and 60 recorded a missing incident after joining the program (33.33%). 148 participants were therefore classified as high-risk whilst 698 were classified as low-risk.

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The majority of individuals who went missing before the scheme did not go missing after joining (66.67%), followed by individuals who did not go missing before joining the scheme but went missing afterwards (17.78%), and individuals who went missing before and after joining the scheme (15.56%).

The majority of individuals who take part in the safeguarding scheme have a diagnosis of Alzheimer's disease (36.76%), followed by Vascular dementia (23.05%), Mixed dementia (20.69%), an unspecified dementia diagnosis (13.00%), Frontotemporal dementia (3.31%), Dementia with Lewy Bodies (2.36%), and Parkinson's dementia (0.83%) – see Figure 1.

Of the high-risk group, the majority of individuals had Alzheimer's disease (35.81%), followed by Vascular dementia (25.00%), Mixed dementia (20.95%), Unspecified dementia (16.89%), and Frontotemporal dementia (1.35%).

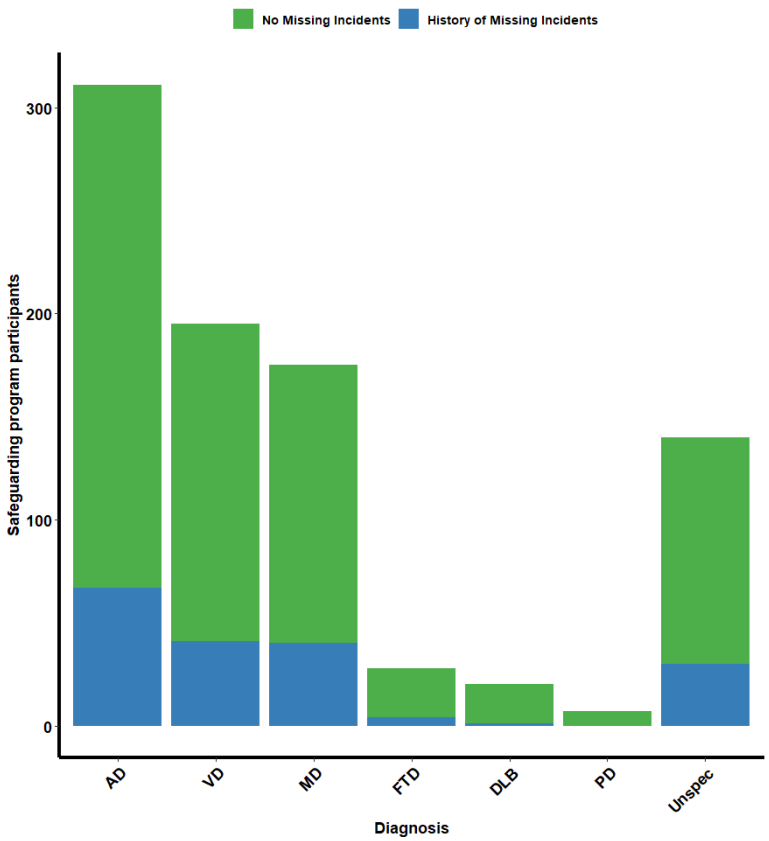


Figure 1. Showing the number of participants in the Dementia Safeguarding Scheme split by diagnosis. Green bars indicate no previous missing incidents (low risk); Blue bars indicate previous missing incidents (high-risk). AD = Alzheimer's disease; VD = Vascular dementia; MD = Mixed dementia; FTD = Frontotemporal dementia; DLB = Dementia with Lewy Bodies; PD = Parkinson's disease dementia; Unspec = Unspecified diagnosis.

Does the Dementia Safeguarding Scheme improve safeguarding by reduce going missing incidences in people with dementia?

Within the overall sample**, statistically significant less missing incidents took place after joining the Dementia Safeguarding Scheme (*M* = 0.09, SD = 0.34)** than before the scheme (*M* = 0.21, SD = 0.52), $t(1453) = 5.937$, $p < .001$. This was maintained when taking into account only individuals who joined the safeguarding program at least one year prior to the data census, $t(838.55) = 3.957$, $p < .001$ – see Figure 2 (left figure).

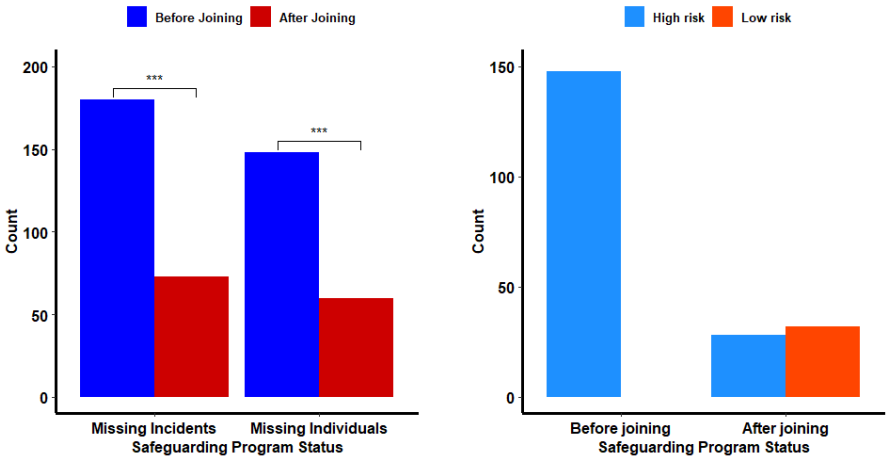


Figure 2. Showing the frequency of missing incidents and the number of missing individuals before and after joining the Dementia Safeguarding Scheme (Left graph = whole sample of Dementia Safeguarding Scheme participants, Right graph = Dementia Safeguarding Scheme participants categorised by risk status)

Does the Dementia Safeguarding Scheme reduce the length of time of missing incidents in people with dementia?

There was no significant difference between the length of time missing when individuals had not joined the safeguarding scheme (*M* = 4.99, SD =11.23) and after joining the program (*M* = 3.27, SD = 3.20), *t*(179.89) = 1.633, *p* = 0.10.

Within the high-risk group only, there was also no significant difference between the length of time missing before and after joining the safeguarding scheme, *t*(122.48) = 1.316, *p* = 0.19.

Does the Dementia Safeguarding Scheme reduce the risk of missing incidents in high-risk individuals?

18.92% of high-risk individuals recorded at least one missing incident after joining the safeguarding scheme, compared to 4.58% of low-risk individuals. High-risk individuals were significantly more likely to record a missing incident after joining the safeguarding scheme than low-risk individuals, ($\chi 2$ = 35.93, df = 1, *p* < .001). This was maintained when taking into account only individuals who joined the safeguarding scheme at least one year prior to the data census, ($\chi 2$ = 48.92, df = 1, *p* < .001) – see

Figure 2 (right figure).

Variable	Before Scheme	After Scheme	Total	p
Average age of first missing incident	-	-	79.45 (6.57)	-
Total number of missing incidents	169	66	235	<.001
Number of individuals who go missing	139	53	183	<.001
Average time spent missing (hours)	5.05 (11.30)	3.27 (3.20)	4.71 (10.39)	0.10
Place reported missing (Home/ Public/ Care home/ Hospital)	148 / 11 / 4/ 3	64 / 6 / 9 / 1	212 / 17 / 13 / 4	1.00
Place reported found (Home/ Public/ Care home/ Hospital)	26 / 137 / 1 / 0	7 / 71 / 0 / 0	33 / 208 / 1 / 0	0.99

Table 2. Showing frequencies and statistics for missing incident before and after joining Dementia Safeguarding Scheme.

Does the Dementia Safeguarding Scheme influence the location of missing incidents?

The majority of missing incidents took place at home (86.48%), followed by in public (6.55%), a care home (5.33%), and hospital (1.64%). The majority of individuals were found in public (86.61%), followed by at home (12.97%), and the care home (0.42%).

There was no significant difference between pre-scheme joining incidences and post-scheme incidences in location missing (p = .07) or location found (p = 0.32).

Are different dementia diagnosis associated with the likelihood of repeated missing incidences?

There was no statistically significant differences among diagnosis groups in the number of missing incidents (χ^2 = 0.049, df = 2, p = 0.98) or the average length of time missing (χ^2 = 0.203, df = 2, p = 0.90).

Summary & Conclusion

The impact evaluation shows that the Dementia Safeguarding Scheme **significantly reduces missing incidents in people with dementia**. Most people in the Dementia Safeguarding Scheme had a

diagnosis of Alzheimer's disease, Vascular dementia or Mixed dementia. This is not surprising since those forms of dementia are the most common forms of dementia, accounting for ~80-90% of dementia diagnosis. At the same time, these dementias are known to have spatial disorientation as a key symptom, which contributes to the missing/getting lost incidents in these individuals. **From this finding, it should be recommended that the Dementia Safeguarding Scheme should be offered to people with Alzheimer's disease, Vascular dementia and Mixed dementia, in particular, since the prevalence and impact is largest in those groups. Overall, the Dementia Safeguarding Scheme resulted in only 3.9% of participants going missing/getting lost after joining the scheme.**

Similarly, there was a significant reduction in for missing/getting lost incidents in the high-risk safeguarding participants of the group. Indeed, ~62% of high-risk participants went missing before joining the program with only 14.21% went missing after joining Dementia Safeguarding Scheme. A reduction of nearly 50% in the high-risk group, which has the highest safeguarding needs. Based on this, the Dementia Safeguarding Scheme should be clearly recommended for people with previous missing/getting lost incidents, since it will make a significant difference to their safeguarding. Similarly, for people with dementia with no previous missing incidents, safeguarding was maintained with only a very small percentage (3.9%) having reported missing/getting lost incidents after joining the Dementia Safeguarding Scheme.

Interestingly though the Dementia Safeguarding Scheme did not reduce the time a person was missing for. Numerically people were found quicker after joining the Dementia Safeguarding Scheme (3.3 hrs versus 5hrs before the Dementia Safeguarding Scheme), however this was not statistically significant. It is likely that the much smaller numbers of missing incidents after joining the Dementia Safeguarding Scheme affected this result. So, the success of the scheme in overall avoiding missing incidents might have affected the time missing for the few incidents remaining. Nevertheless, this is something to be investigated further in the future.

However, over the past 12 months, Inspector King has amended the flagging and alert process. These amendments now mean that the police control room operators and Officers commencing active searches are alerted to the held Herbert Protocol data. The amendments are believed to have had a positive to impact on reducing the search time for missing people who are signed up to the Dementia Safeguarding Scheme. Something which we think was being missed before because of the flagging/alert process in the control room.

Importantly, however, the Dementia Safeguarding Scheme worked regardless of the location of residence of people with dementia. The majority of participants lived at home, where safeguarding is at its most critical since the safeguarding is mostly conducted by the carer or family with limited resources. By contrast, few people with dementia go missing from care facilities or hospitals, since there is usually 24/7 safeguarding available. It is, therefore, very promising that the Dementia Safeguarding Scheme worked well across all locations and should be recommended for people regardless of their residency type.

Overall, our analyses shows that the Dementia Safeguarding Scheme is a highly effective scheme in improving safeguarding of people with dementia for missing incidents/getting lost. In turn, this will allow people with dementia to remain independent but safer for longer. It will also re-assure carers and families of people with dementia that joining the Dementia Safeguarding Scheme is providing improved safeguarding of their loved ones. Finally, for the police services, the Dementia Safeguarding Scheme provides an efficient scheme to reduce significantly the resources required for safeguarding people with dementia in the community, as it reduced the number of call-outs required by the police. We deem, therefore, the Dementia Safeguarding Scheme an overall success which should be

further promoted across police forces and local authorities within the UK, further leveraging the outreach work conducted by Inspector King.

END

Alzheimer's Society

Dementia Hero Awards 2023

Dementia Hero Award for Research and Innovation

Dementia Hero Award for Dementia Friendly Business (Large)

RFID JOURNAL AWARDS 2023 Winner Best RFID/IOT Implementation (other Industry)

GOLD AWARD 2023 A PROUD DEMENTIA AWARE ORGANISATION

SILVER AWARD 2023 A PROUD DEMENTIA AWARE ORGANISATION

Links and images;

Sky news https://news.sky.com/story/dementia-gps-trackers-given-to-sufferers-to-help-stop-tragic-incidents12613115

News Article; [Dementia missing person safeguarding scheme celebrates its seventh year | Avon and Somerset Police]

BBC article; https://www.bbc.co.uk/news/uk-england-bristol-55059003

On-line Herbert Protocol;https://www.avonandsomerset.police.uk/forms/dss

Programming the NFC Assistance Device (vimeo.com)

QR Code video

How to scan a device on Vimeo

Poster

Dementia

Safeguarding Scheme

Inspector Stuart King
Letter to accompany N

Dementia
Safeguarding Scheme

Programming guide

DEMENTIA SAFEGUARDING SCHEME

AVON AND SOMERSET DEMENTIA FORUM

The Dementia Safeguarding Scheme (Herbert Protocol) is a national scheme encouraging carers, family and friends to provide useful information which can be used in the event of a person living with dementia going missing or who is in need of assistance. The information is captured in a form and is used by the police to help locate vulnerable individuals living with dementia.

Register for the scheme now and request a FREE wristband, hangtag and lanyard which help safeguard people with dementia.

How to register and request a suitable device

You can register for the Dementia Safeguarding Scheme via the Avon and Somerset Police website. **Simply scan the flower QR code below or search 'Avon and Somerset Dementia' in your web browser.**

When you register, you can request a wearable wristband, hangtag and lanyard device which stores electronic information about the wearer, such as their name and next of kin. The device can be scanned by emergency services, or a person assisting them, if the individual is found lost or in distress.

Bulk orders for care homes or support groups can be requested by emailing our Dementia Safeguarding Scheme lead, Police Officer Stuart King: stuart.king@avonandsomerset.police.uk

Follow **'Avon and Somerset Dementia Forum'** on Facebook

Avon and Somerset Police
SERVE.PROTECT.RESPECT.
www.avonandsomerset.police.uk | Follow us on

Simply scan the flower QR code above or search 'Avon and Somerset Dementia' in your web browser.

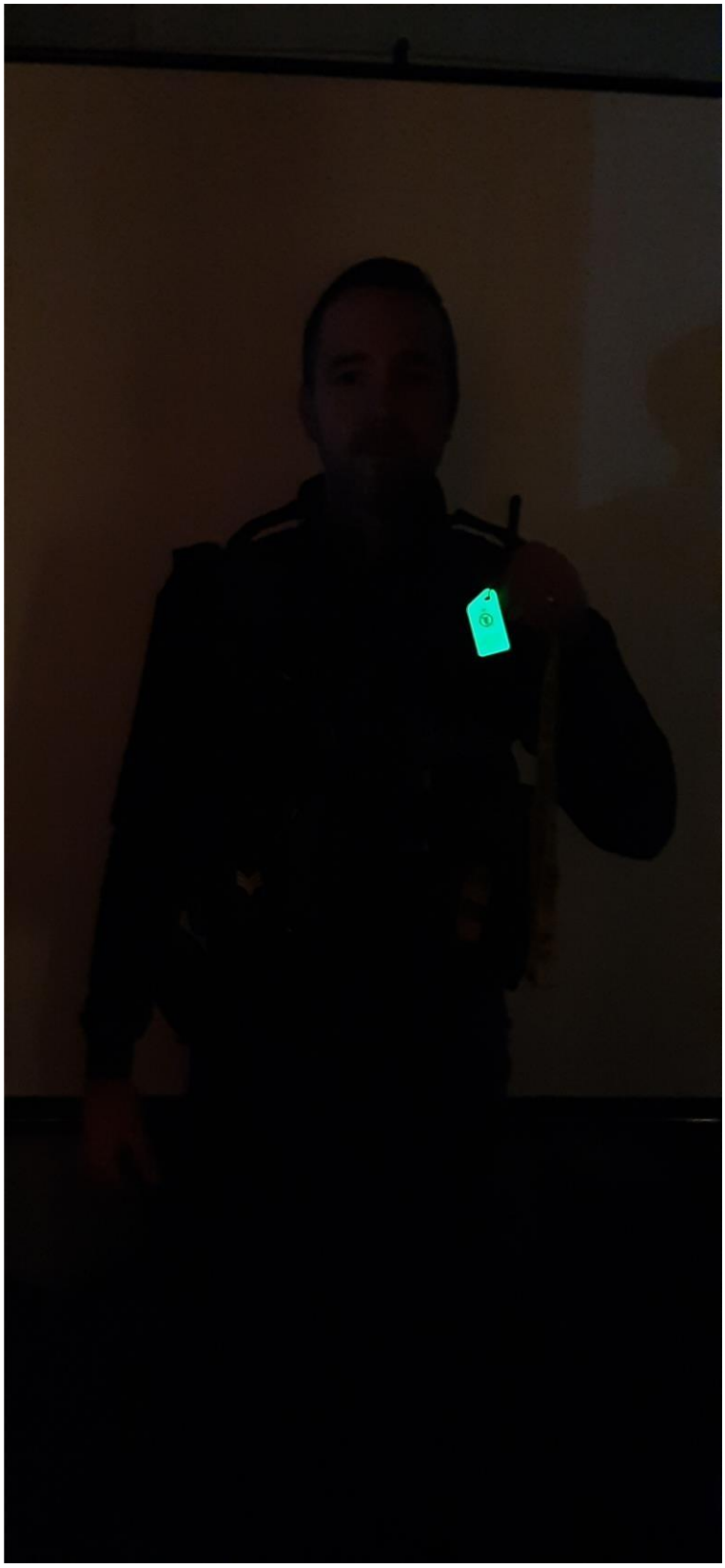
GPS Trackers 2022

December 2022 NFC devices with QR technology and glow-card.


Dementia Safeguarding Scheme
I have dementia, tap tag with NFC phone if I need help.
Avon and Somerset Police
I have dementia, tap flower with NFC phone if I need help.


Dementia Safeguarding Scheme

Picture of 'Glow-card' in low light.



NFC Assistance Devices June 2022

750 x Hang Tags

500 x Lanyards

350 x Wristbands

Older version of wristband;

Public feedback and on-line material publicising he scheme.

November 2023- “Your safeguarding system worked very efficiently when my husband went walkabout earlier in the year. He had only been registered for a matter of a few days, less than a week.” Kate from Bristol

See more of Avon and Somerset Dementia Forum on Facebook

Avon and Somerset police already offer wristbands that store emergency contact information for vulnerable people
HOLLY THATCHER/PA

Police offer GPS trackers to people with dementia

• NEW

Will Humphries, Southwest Correspondent

Tuesday April 12 2022, 5.00pm, The Times

Police forces are offering GPS tracking devices to people with dementia who are at high risk of going missing.


Police & Fire Dementia
Safeguarding Scheme

HMICFRS

His Majesty's Inspectorate of Constabulary and Fire & Rescue Services

March 2023

PEEL 2021/22

Police effectiveness, efficiency and legitimacy

An inspection of Avon and Somerset Constabulary

The constabulary problem-solves well with partner organisations to protect the vulnerable and reduce demand

We found the constabulary works effectively with a wide partnership of agencies to protect the vulnerable and reduce demand. One of many good examples of this involved the constabulary working with the local authority, health service, fire and rescue service and a dementia charity. This group set about safeguarding a group of people with dementia. Financial support was obtained from the private sector to purchase tracking equipment. This helped relatives of those with dementia, and others who may find them, to return them to safety without any police intervention. This initiative almost completely diverted demand away from police officers but more importantly protected some of the most vulnerable from harm.


Winner
Avon and
Somerset Police
Dementia Hero
Award 2023
Dementia Friendly Business
Large
Alzheimer's
Society
Winner
Stuart King
Dementia Hero
Award 2023
Research and Innovation
Alzheimer's
Society
Together we are help & hope
for everyone living with dementia


RFID
JOURNAL
AWARDS
2023


RESPONSE VEHICLES ONLY
POLICE


Bristol Dementia
Action Alliance
A Dementia Aware Organisation
Silver level is awarded to
Avon and Somerset Police
A PROUD DEMENTIA AWARE ORGANISATION
AWARD
September 2022


I have dementia, tap tag with NFC phone if I need help.

QR Code developed….

Dementia Safeguarding Scheme