



Avon & Somerset Police Dementia Safeguarding Scheme

Utilizing NFC & GPS technology within Policing

Presented by Inspector Stuart King















A little about me....







Avon & Somerset Policing area

Jurisdictional structure Avon and Somerset, Operations jurisdiction England, England Map of police area 1,847 square miles Size $(4,780 \text{ km}^2)^{[3]}$ 1.72 million^[3] Population

England & Wales

Legal jurisdiction

Key locations:

- City of Bristol
- City of Bath
- City of Wells
- Glastonbury Festival





Key benefits of the Dementia Safeguarding Scheme

- Safeguards some of the most vulnerable members of society.
- Reduces demand on policing and partner services.
- Collaborative working with partners including charities, NHS, GPs, other Forces.
- Provides real time savings.
- Utilizes technology effectively.
- Increases trust and confidence in policing.

Overview of Dementia in the UK

- In the UK, Dementia is one of the most significant conditions affecting older population
- Predicted estimates:
 - 2025: 1 million+ people
 - 2051: 2 million+ people

850,000 **(1)**

Source: Prince, M et al. (2014) Dementia UK: Update Second Edition report produced by King's College London and the London School of Economics for 1 in 3

people born in the UK this year will develop dementia in their lifetime.







Source: Lewis, F: Estimation of future cases of dementia from those born in 2015 (July 2015); Consultation report for Alzheimer's Research UK



- Estimated 850,000 people in the UK have dementia, less than 50% receive a formal diagnosis.
- Worldwide prevalence over 24 million people.
- The likelihood of developing dementia becomes greater the older a person is > 1.3% of people in the UK aged 65–69 have dementia, rising to 20% over 85 years.
- 62% of people living with dementia in the UK are female and 38% male.
- As populations in both developed and developing countries are ageing rapidly, the number of people with dementia will increase, making it one of the most important public health issues.
- Alzheimers is the most common dementia type in the UK 62%, Vascular dementia 17%, 10% Mixed Dementia. Lewy Body 4%, Frontotemporal and Parkinson's 2%, Less common Alcohol induced, Syphilis, Prion disease.



University of East Anglia

Prof Michael Hornberger, from UEA's Norwich Medical School, said: "People with dementia getting lost or going missing is a problem worldwide. Around 70 percent of people with dementia may go missing at least once, with some at risk of going missing multiple times.

"Around 40,000 people with dementia go missing for the first time every year in the UK – and this figure is likely to grow with the projected increase in the dementia population.





Statistical Tables for UK Missing Persons Data Report, 2019/2020

Time series data of missing related reports in England and Wales

Website: missingpersons.police.uk
Contact email: ukmpu@nca.qov.uk

- Dementia= 2,158 incidents in 2019/20 which is 2.7% across England & Wales
- •
- Estimated Cost of £5,395,000 (\$7,055,581.00) to policing alone!
- *(based on average search cost @ £2500)
- *https://www.nationalcrimeagency.gov.uk/who-we-are/publications/503-uk-missing-persons-unit-statistics-report-2019-2020-1/file







Demands placed on other services...











Catalyst which caused me to take a closer look at links with Missing person reports & Dementia...

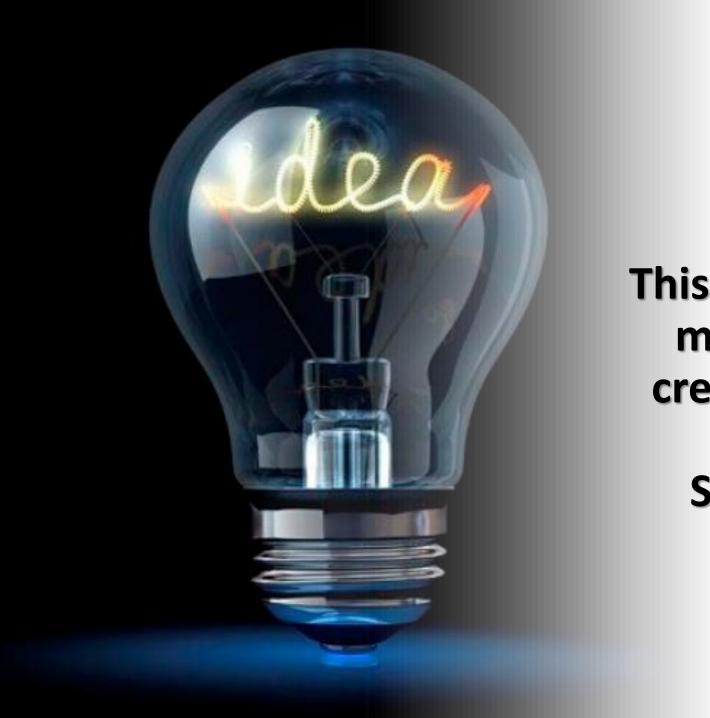
- Death of man with dementia struck by train after becoming disorientated.
- A Lady who travelled across city to visit her childhood home, which had been cleared following bombing during WWII.
- Personal family diagnosis.
- Drive for efficiency and maximizing our ability to protect.

A meeting in 2015 led to demand within Avon and Somerset being identified...









This meeting led to my decision to create a bespoke 'Dementia Safeguarding Scheme'.



2015 Dementia Safeguarding Scheme is launched utilizing GPS technology to allocate tracking devices to most at-risk people.

Key issues identified were:

- Funding
- Reputational risk from media
- Longevity of scheme
- Public and charitable support

Response:

Torbay and South Devon
NHS Foundation Trust

- Stage 1 (2015-16)
 - Funding: Bristol Dementia charity
 - 15 devices force-wide for 12 months
 - Strict referral criteria: most at risk allocated device
 - Designated mailbox for referrals
 - Basic GPS pendant monitored by NHS call centre



Continued...

 Formation of forcewide Avon & Somerset Dementia Forum

 New funding stream through PCC community fund







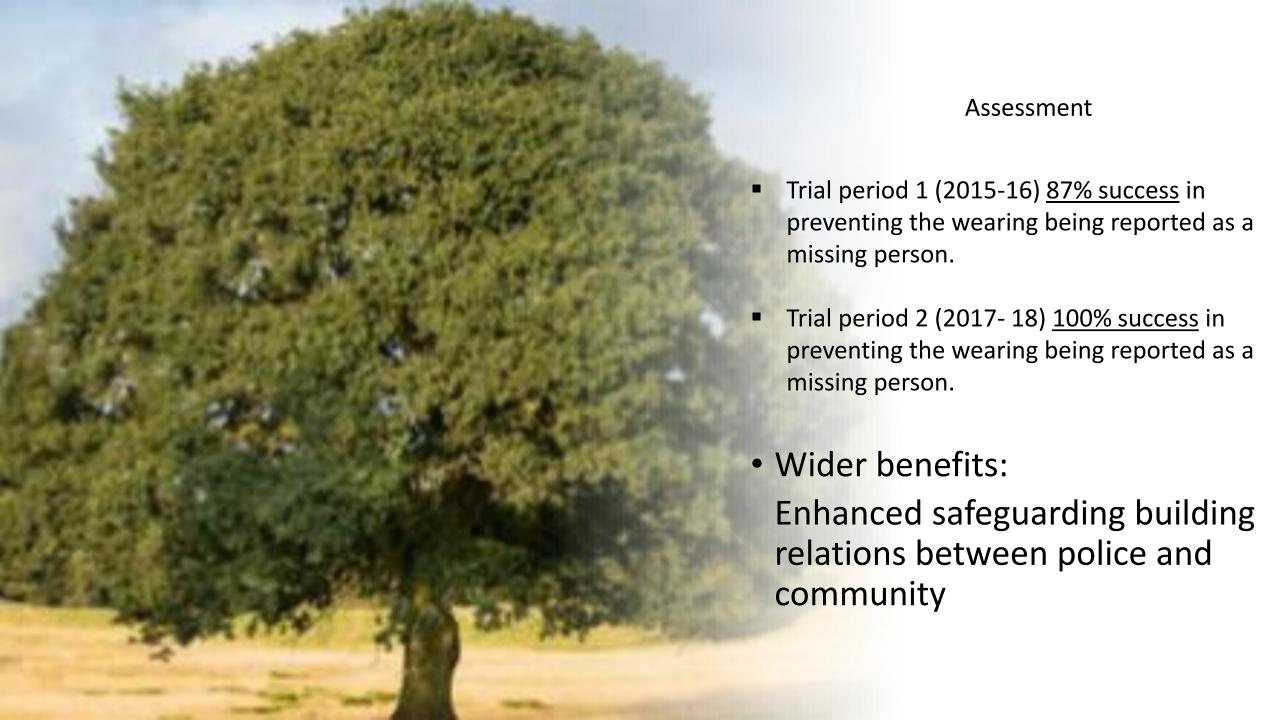
Stage 2 (2017-2018)

- New supplier: Bristol Careline
- Doubling devices to 30
- Missing person specialist to assess nominations
- Photograph/description added (with consent) to police intelligence system
- Promotional videos produced, local officers deliver GPS device

British Healthcare Awards 2014 Winner

GPS device with enhanced features:

- Geo safe zones
- Online location access by NOK
- Reduced demand on police call centre: NOK don't have to wait for missing episode to develop



However.....

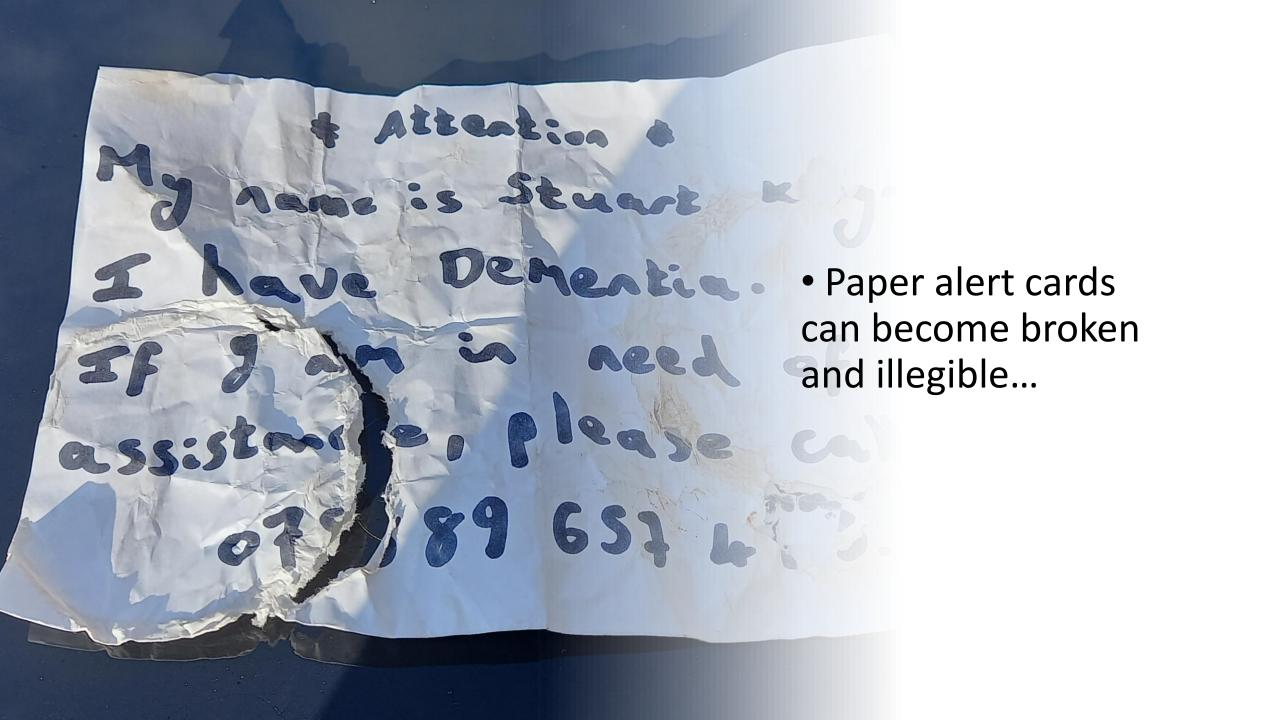
- There was a requirement for an alternative passive device due to the cost of GPS devices.
- Key driver was the need for a device that was cost effective to safeguard a broader number of people.
- Options available were.....



Simple paper ID card perhaps?....







More robust silicone/rubber/metal printed bands maybe?



Medical Bracelet with Engraveable Tag



Deluxe Engraveable Silicone Bracelet BROAD BAND



Medical Flatband (Inside Engraving)



Medical Bracelet with Clasp



Deluxe Engraveable Silicone Bracelet (Inside Engraving)



Slim Traditional Medical ID Bracelet



Sports Bracelet with Engraveable Tag





• ...too costly as require bespoke individual production per band.

• Other issues are that they can't be updated and are limited in the information which can be printed. Image credit



NFC technology selected as the Solution!

- Key requirement of the NFC device were identified:
 - Obvious in appearance
 - Robust
 - Waterproof
 - Able to hold sufficient information about the wearer
 - Able to offer assistance which will safeguard the wearer









Collaboration between Police, Charity & Fire...





Bespoke "Police & Fire" Wristband created cost was £1.50 (\$1.88).



NFC Assistance Wristbands

- Bright yellow for instant recognition of the scheme.
- Watch strap for application versatility.
- Silicone for durability and waterproof.
- Embedded NFC chip.

NFC Chip spec:

- NTAG215 microchip.
- **Memory of 504 bytes** storage of a message up to about 480 characters.
- Extremely reliable chip memory retention of at least 10 years.
- Can be written 100,000 times so no worry about erasing or changing the data!
- NFC Forum Type 2 compliant means compatible with all NFC enabled mobile phones.



Yellow wristband scheme launched in Avon and Somerset for 'most vulnerable'



Emergency services and the public can help keep people safe







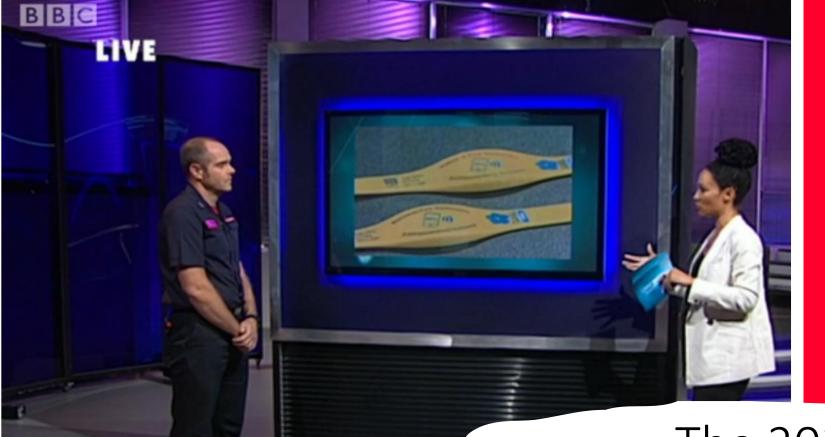




By **Zasha Whiteway-Wilkinson** Content Editor 16:41, 25 SEP 2020 | **UPDATED** 16:49, 25 SEP 2020



- October 2020, 750 NFC wristbands purchased.
- Allocated during home fire safety visits by the fire service in the area of Avon (city of Bristol, Bath and parts of Somerset).



LIVE



The 2020 new Collaboration scheme launched on BBC 1 Crimewatch Show..

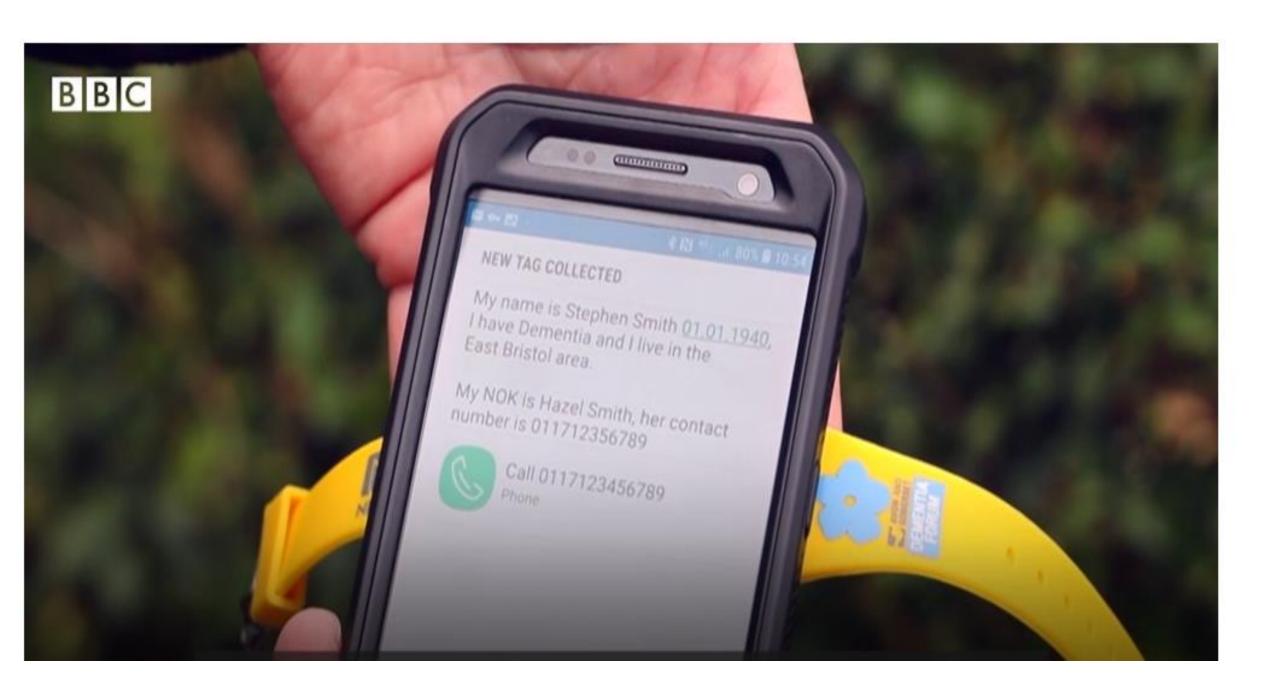






NFC wristband featured on BBC news!





On screen display when NFC device is scanned by a phone.



NEW TAG COLLECTED

Hello, my name is Stuart King DOB xx.xx.xxxx.

I have Dementia and I am from (input local district/Town but not home address).

If I am in need of assistance please contact Mrs xxxxx King (insert their NOK) on the number below.

Thank you for helping me.



Distribution

 Initial distribution of the first 750 wristbands was via applications to Avon Fire & Rescue for a home safety visit.

Dementia Safeguarding Scheme





Blockers identified to increased distribution

Fire home safety visits not required/wanted by everyone with Dementia.

Only part of the force area covered.

Herbert Protocol not completed during Fire visit and allocation of wristband.

THE HERBERT PROTOCUL Safe & Found

 The protocol is named after a war veteran of the Normandy landings named George Herbert, who lived with dementia in a care home. Mr Herbert went missing and sadly died while searching for his childhood home.









Funding from Western Power, Bristol Water and Wessex Water to purchase the entirety of the new wristbands.

Benefits

Greater coverage of the entire force area (rather than just the "Avon" area).

Combined the application for the NFC assistance device with registering for the Herbert Protocol.

Additional funding obtained which allowed the purchase of a further 2,000 NFC assistance wristbands.

The increased quantity allowed distribution to support groups, hospitals, charities and other forces wishing to carry out a trial.

- Introduction of on-line Herbert Protocol/DSS form.
- In-force digital services utilised to create a coded form which is received by enquiry office staff.
- Believed to be one of the first forces which stores the document electronically for instant access in the case of a Missing episode



Register for the Dementia Safeguarding Scheme

Use this form if someone you know has dementia or is awaiting diagnosis and you would like t provide the police with information to help in the event of the person going missing.

If you are concerned about your friend or relative, call the police on 999.

If you have already registered someone for the Dementia Safeguarding Scheme (Herbert Proto want to update their details, report a change of circumstances.

Once you have started the form you will not be able to leave it and return, so make sure you have and information to be able to complete it in one go.

This form will take about 25 minutes to complete.



To fill in this form

Enquiry Office staff process Herbert Protocol/DSS Forms

 On-line applications are received by Enquiry Office staff and processed at all of our 25 enquiry offices force-wide.

A record is then created on Niche and Webstorm which means there is instant access to vital data if the person registered is reported missing, such as:

- Former addresses
- Places frequented
- Photos
- Medications
- Former places of work



nentia and worry missing?



All fields are required unless specified otherwise. Which devices you would like us to send you? When selecting an option, please consider the type of device which would be used. This will help make sure as many people as possible receive a device. If your chosen option is unavailable, we will send you an alternative. Yellow NFC assistance wristband Yellow NFC assistance hangtag and yellow dementia lanyard Yellow NFC assistance wristband and NFC yellow hangtag Yellow NFC assistance wristband, NFC yellow hangtag and yellow dementia lanyard Do not send a device

Continue

The NFC devices are posted out to the recipient along with a letter, programming guide and priority service booklet from water and power companies.











Register for the Dementia Safeguarding Scheme

Use this form if someone you know has dementia and you would like to provide the police with information to help in the event of the person going missing.

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Over 1,500 NFC devices distributed in first year!

Applications made via force website via the Herbert Protocol and mass allocation to groups.



Jenny Slee

Katie PM a patient today had one of these on and I thought what a good idea!



24w Like Reply



Ali Roper

9w Like Reply



Donna Ham

Brilliant. Hope this is the start of other ideas. Well done

9w Like Reply





Maria Quinnell

I am very grateful for this scheme. My close relative does wear the band, so if they did become lost we can be informed much quicker of their whereabouts without the person having to remember personal information about themselves.

8w Like Reply



Andy Gainey

Brilliant idea. Well done.

Ali Roper

I helped a good friend get one as she has the early stages of dementia. It arrived within a week. She never leaves home without it. Thank you

24w Like Reply

2 🖒



Kathy Timbrell

This is such a great scheme I remember when I did community care and I did dementia training there was a case of a guy who went missing with dementia, he had one of these types of bands on and ended up being found in Scotland, I think he had managed to get on a bus and somehow got all the way up there before he was found but one of these types of bands helped find him, I really do believe that all... See more



Jaime Day

We have one for my dad. When he was recently admitted into hospital the doctors and nurses thought it was a fantastic idea.

Helen Sanders

What a brilliant idea and lovely to see the police being pro active with public safety. Well done.





2022 need for alternative products.

• Feedback regarding original wristband was overall positive but....

- Some said it was too bulky for small wrists.
- Wasn't versatile enough for applying to garments, walkers etc.
- Was hidden under sleeves and therefore not visible.

Sample of feedback...



Kathryn Cleave

My mum wont and doesnt wear the wristband as it's very chunky and she doesnt like it so takes it off constantly.... I've now hidden it into her handbag but the tags would work a lot better for us. Either that or an easier to wear bracelet type wristband that maybe isnt so chunky and stiff to wear... it's too big really particularly for an older lady with small wrists to wear. Thanks.

Like Reply



Sally White

I think the tags are so much better my mum wouldn't wear the bracelet but I would be able to attach the tag to her handbag

Like Reply







Deb McCormack

Please can I get some more information on how to get the hand tag x

Like Reply



Angela Richmond

Is it possible to have one of the tags please, we have the wristband,



March 2022-750 NFC assistance Hangtags purchased.

- Greater versatility
 - Bungee strap allows self-attachment via a 'hook over' application.
 - Lighter in weight.
 - More visible (not hidden beneath clothing etc.)







Greater versatility







2022 saw further funding of £9,000 from Western Power, Bristol Water and Wessex Water obtained to purchase GPS devices and NFC devices.





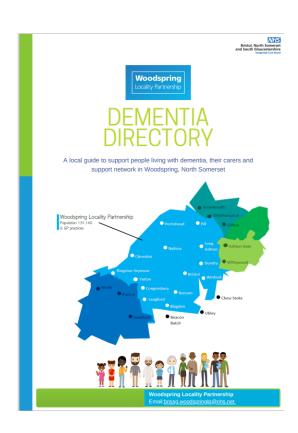


- · Easy to follow messaging to end user.
- Feedback led.

- Cheaper (less than £1) = greater distribution.
- · Application to lanyards also made available.

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

Partnership with local NHS, Doctor Surgeries and Community groups to reduce risk and increase awareness.









By Summer 2022 all new NFC devices were now embedded with a video link to assist with programming and as a safeguard for devices which haven't been programmed.

Programming the NFC Assistance Device (vimeo.com)









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

Posters and on-line adverts created by force design unit utilizing QR codes







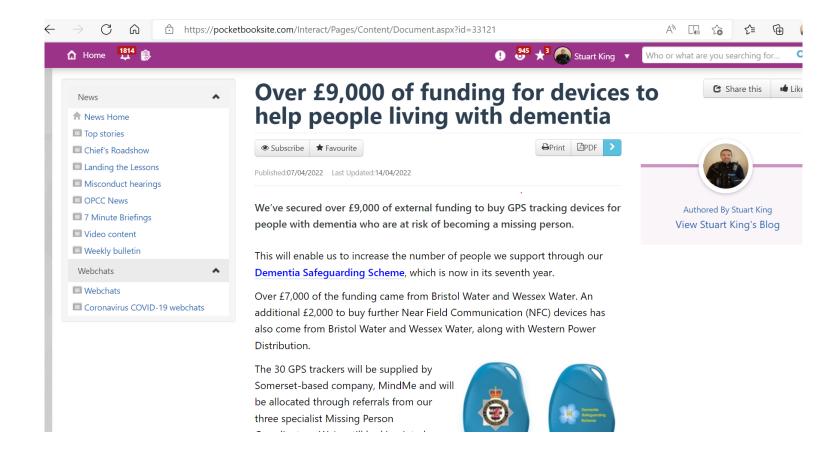
Neighbourhood, Response and Missing person unit upskilled in allocating both NFC & GPS devices.

Promotional work of the scheme has also been undertaken with pubic transport providers.





Extensive internal communication with staff via intranet and presentations





Trial period 3 (April 2022- onwards) 96% success in preventing the wearer being reported as a missing person.







Provided free of charge to people considered at high risk of going missing.

Key features include:

- Geo-safe zones
- Instant access by carer/NOK to GPS location via an app or on-line.
- -Monitoring by call center.
- -Re-allocation of devices.
- -Prevents a missing episode
- -Fraction of the cost (£250) of the average missing person search of £2,500







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Dementia: GPS trackers given to those with syndrome to help stop 'tragic' incidents

When people are at risk of going missing, families and police can log in to an app and





Force Corporate Comms utilised to increase awareness of positive work.



In addition to the GPS trackers, we also promote the use of tracking apps if the user would tolerate carrying a phone.







October 2022 the force is formally recognised by Bristol Dementia Action Alliance as being a 'Proud Dementia Aware Organisation'

Amendments to design for improved useability, **4**th **generation**. QR code added





20mm Lanyard







Back



Front







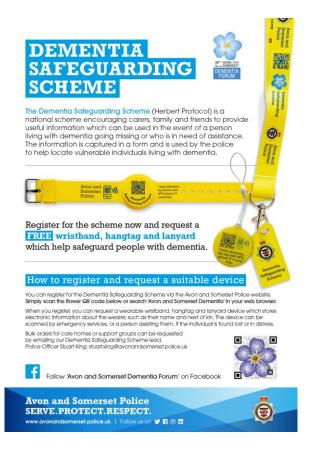






New QR Video introduced

New publicity literature created by the force design team.





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











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

New Features and Devices

QR Coding print on all devices which directs to a URL with embedded video, instructing how to activate and read NFC.

'Glow-Card' NFC device for increased visibility and alternative NFC function.



March 2024 Completion of academic assessment of the Scheme by Michael Hornberger, from UEA medical School, Professor of **Applied Dementia** Research.

University of East Anglia

Home

People

Organisations

Research output

Projects

Datasets

Prizes Activities



Michael Hornberger

Professor

Phone

7139

Professor of Applied Dementia Research, Norwich Medical School Member, Norwich Institute for Healthy Aging Member, Mental Health

https://orcid.org/0000-0002-2214-3788

Contact expert





View Scopus Profile

2.04 Bob Champion Research & **Education Bldg**

Email

M.Hornberger@uea.ac.uk

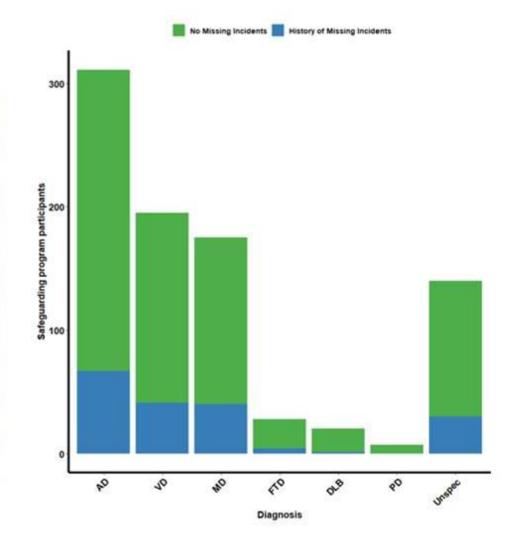
Total sample

846 individuals with a dementia diagnosis took part in the safeguarding program.

663 (80.38%) did not go missing.

183 (19.34%) went missing.

Table 1. The demographic characteristics of individual	İs	
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 1 st time before the program	113	
Participants missing 1 st 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)	





Potential financial saving of up to £1,657,500

for the 663 people who did not go missing (out of the 846)

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 impact evaluation shows that the Dementia Safeguarding Scheme significantly reduces missing incidents in people with dementia....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.



Michael Hornberger

Professor
Professor of Applied Dementia Research, Norwich Medical School
Member, Norwich Institute for Healthy Aging
Member, Lifespan Health
Member, Mental Health

https://orcid.org/0000-0002-2214-3788

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."





Avon and Somerset Police





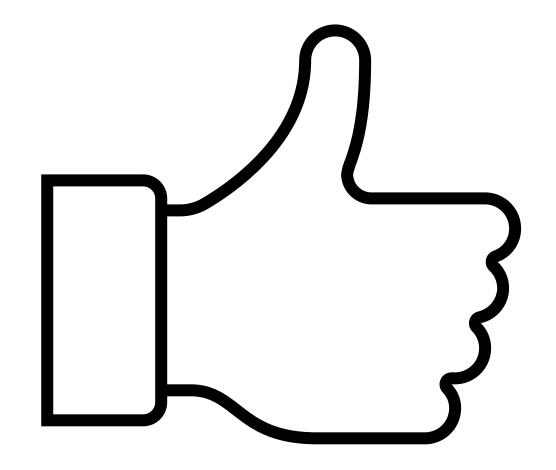
I have dementia, tap flower with NFC phone if I need help.

Subsequent statistics

80.38% of people who were signed up to the Dementia Safeguarding Scheme were not subsequently reported as missing to police.

(This is very positive, considering academic research which has found 70% of people living with dementia will go missing at least once)

Positive feedback and recognition



Feedback within the first week of the 4th generation device launch.



Emily Culblaith

These are great, we recently found a lady in the pouring rain who was very confused.

She had one of these in her bag which meant we were able to get her home, dry and warm.

25 m Like Reply





Emily Rockey

1w

• • •

Deputy Head of Corporate Communications and Engagement at Surrey Police

We recently signed up to this scheme for my Mum and I have to say it is fantastic and provides a real peace of mind knowing that should she need help, details can be accessed quickly by anyone with a QR scanner. Well done Avon and Somerset Police, so simple but yet so powerful.

Further feedback 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



Kate G. • Golden Hill • 1h

This system works. Please register/encourage others to be register case repatriation took five minutes from police being alerted by kin of public. Can cost the police £2500 in repatriating if vulnerable per registered and can't remember their name.

REGISTER TODAY- well worth the peace of mind.

Like Reply Share

Feedback from September 2024



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.



Dementia Hero Awards 2023

 Dementia Hero Award for Dementia Friendly Business (Large)

Dementia Hero Award for Research and Innovation

Winner
Avon and
Somerset Police

Dementia Hero Award 2023

Dementia Friendly BusinessLarge



Winner Stuart King

Dementia Hero Award 2023

Research and Innovation



Together we are help & hope for everyone living with dement

October 2023 BDAA Charity awarded Avon & Somerset Police their 'Silver Award' and a personal 'Gold Award'



A PROUD DEMENTIA AWARE ORGANISATION



A PROUD DEMENTIA AWARE ORGANISATION



Organisations that we've assisted over the years either with advice, trial devices and full or partial adoption of the Dementia Safeguarding Scheme.





Essex County Fire & Rescue Service





MATION





























DEMENTIA FORUM



Lincolnshire PCC launches "smart" wristbands to protect people with dementia

A pilot project using 600 wristbands will be launched in East Lindsey



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Exposure for Lincolnshire's dementia wristbands





Supporting independent living for those living with dementia

14 16/05/2022

Gwent Police becomes the first police force in Wales to adopt a scheme which gives those people living with dementia the support they need.



The dementia wristband scheme means emergency service workers can easily identify and get the right help and support for those living with the condition.

As part of a pilot over 80 local residents will be offered the band which will link care providers with emergency service workers.

Ahead of the launch, Chief Inspector Stephanie Blakemore said:

"Living with dementia is often scary and leaves you feeling lonely.

"When someone with dementia requires help from emergency service practitioners, it requires a vast amount of work to gather all the information to correctly care for that person.

"The wristband visually informs the public, emergency service workers and other care providers that the individual is living with dementia."

This scheme bolsters the Herbert Protocol which Gwent Police alongside the other Welsh forces support. The scheme provides valuable information on anyone living dementia and other neurological conditions.

The protocol provides emergency service workers with information on medication, contact information, frequently visited places and a recent photograph.

Cllr Paul Cockeram, Gwent Regional Partnership Board Chair said:

"It has been invaluable that we have been able to adapt your blueprint." **Dover District Council**



"This is a really good idea my husband often goes to the shop on his own and I worry"

"That is so impressive and simple"

"That looks so useful"

"That would really help us and keep him independent longer going out"

"It's about time we had a simple free gadget that is helpful and safe"

"What a great idea I could have used that with my father who's always going missing"

"That's so much safer than having a card with details on as it's not always easy to find a card, and I worry about strangers going through personal effects"

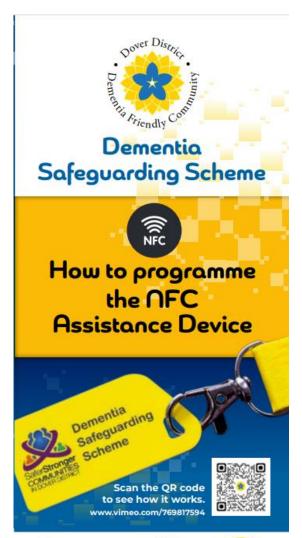
"I love that you can use it as a Lanyard or more discreetly on keys"



Home » News » Press Releases » 2024

Dementia safeguarding tags rolled out in the Dover district













Dementia Safeguarding Tag

Dementia Safeguarding Tags are being issued to anyone living with dementia in the Dover District who would like one.

The Dementia Safeguarding Tag

is designed to be carried by a person living with dementia on their housekeys, handbag, jacket, walking aid or anything else likely to be taken with them when they go outside and into the community.



When you come into contact with someone who is confused, distressed or disorientated please ask if they have a Dementia Safeguarding Tag.



Enable NFC on your phone.

This is not an app, but a setting on your phone

NFC is already enabled on most iPhones.

For Androids, this is normally in your settings menu near to wift and bluetooth settings.

Then hold the back of your phone against the tag to let you access the persons emergency contact details.



We value your feedback.

Please scan the QR code or visit: www.dover.gov.uk/tag-feedback to help us improve this service.







Dementia Safeguarding Scheme Supported by Avon & Somerset Police Dementia Hero Awards 2023 Winner

South Yorkshire Police were assisted in 2023 with adoption of the scheme, purchasing 1,500 wristbands and hangtags to be allocated in the same format via on-line application





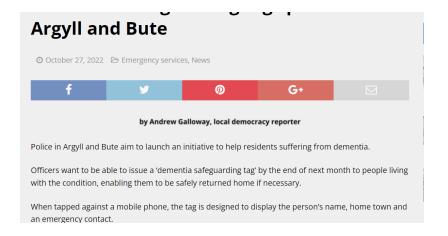


I have dementia, tap flower with NFC phone if I need help.





Assistance given to
Police Scotland to
adopt and implement
the Dementia
Safeguarding Scheme





By October 2023, Police Scotland have allocated 450 devices and are set to purchase a further 13,000 for adoption of the scheme across the whole of Scotland.









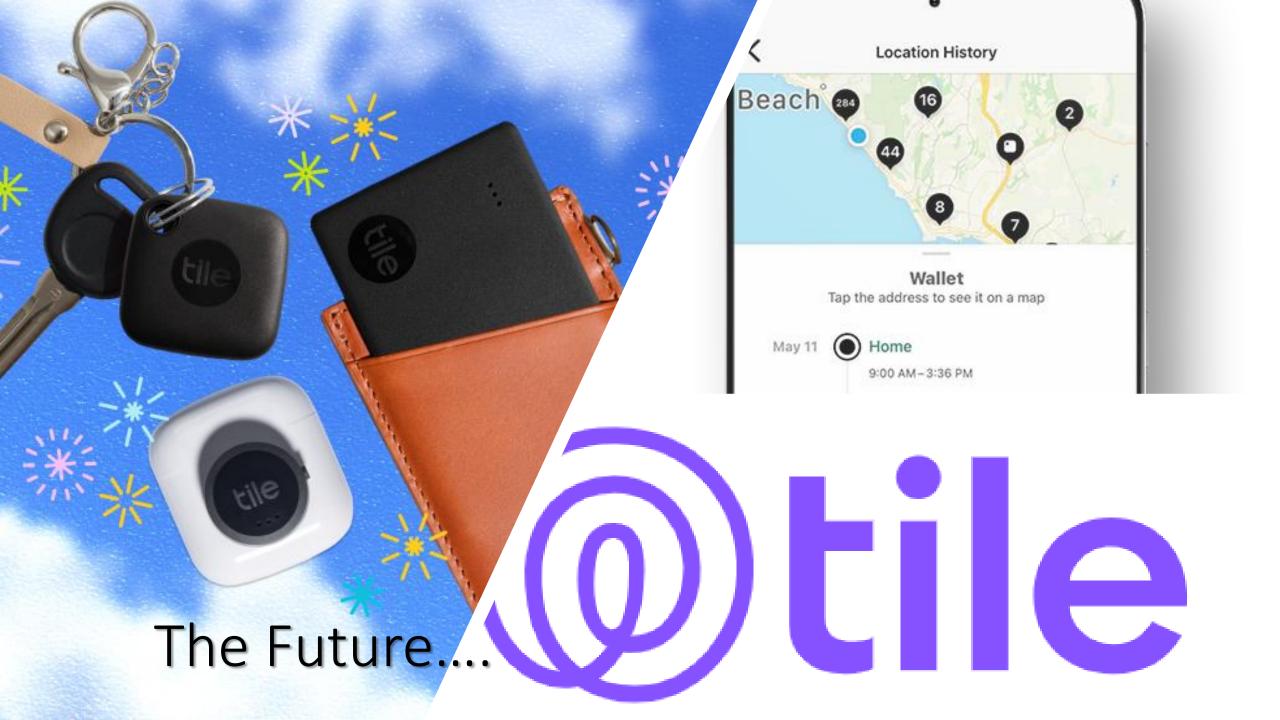
Dementia Safeguarding Tag





Dementia Safeguarding Tags are being issued to anyone living with dementia in Argyll and Bute who would like one.

The **Dementia Safeguarding Tag** is designed to be carried by a person living with dementia on their housekeys, handbag, jacket, walking aid or anything else likely to be taken with them when they go into outside and into the community.



Overview of some of the key benefits of the Dementia Safeguarding Scheme:

- 1. Safeguarding some of our most vulnerable members of society.
- 2. Reducing demand on policing and partner services.
- 3. Working in collaboration with partners including charities, NHS, GPs, other Forces.
- 4. Providing real time savings.
- 5. Using technology effectively.
- 6. Increasing trust and confidence in policing.





Thank you for listening, I welcome any questions.

Inspector Stuart King