



Evaluation of the Kent and Medway Violence Reduction Unit Buddi Tag Programme

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Executive summary

The Kent and Medway Violence Reduction Unit has funded a programme in which young people aged 10–25 at risk of criminal exploitation wear a voluntary (i.e. not court-mandated) GPS ankle tag for around 6-8 weeks and are provided with support from a specialist team (the Buddi Tag Programme coordinators).

Between June 2023 and June 2024, a team from the National Institute of Health and Care Research Applied Research Collaboration Kent Surrey Sussex, led by the Centre for Health Services Studies at the University of Kent, evaluated the Buddi tag programme. The evaluation was an uncontrolled study involving 57 young people aged 12 to 22 followed up for up to nine months after tag removal.

The findings suggest that the Buddi Tag Programme may be an effective – and cost-effective – addition to other support offered to young people at risk of exploitation.

The 36 young people followed up for nine months after removal of the tag showed sustained reductions in suspected offences and number of days reported missing from home. Suspected offences dropped from an average of 4.8 per young person during the three months before tag fitting to 1.7 per young person in the final three-month follow-up period (7–9 months after tag removal). Reported missing days fell from an average of 2.9 to 1.4 per young person per three month period over the same timeframe.

In these 36 young people, there were 56 fewer suspected violent offences than expected over the nine month period following tag removal. Even if only 25% of these represent true violent crimes, the Buddi Tag Programme could have led to societal savings of **£80,000 to £200,000** (based on Home Office estimates of the cost of violent crimes to society of £5,930 for violence without injury and £14,050 for violence with injury).

The cost of Buddi tag rental and staff time to run the programme was estimated to be about £935 per young person (£33,660 for the 36 with nine month follow-up data) suggesting a net economic benefit to society, with promise as a cost-effective intervention for reducing violent crime.

Young people reported that the programme helped them change their behaviour, reducing street activity, changing peer networks and engaging in alternative activities. Young people raised practical concerns about the device's size, comfort, and charging process, which are being addressed by the Buddi Tag provider.

The work of the Buddi Tag Programme coordinators – building trust with young people and families, promoting positive behaviours, checking wellbeing, and connecting young people with other services while the tag is worn – appears to be a key factor in achieving success.

Key recommendations

We recommend that the Kent and Medway Violence Reduction Unit:

- **Sustain** the Buddi Tag Programme, expanding access so that it is more equitably available across the region and that tag supply meets demand.
- **Introduce routine monitoring systems** of suspected offending and missing-from-home episodes among young people engaged with the Buddi Tag Programme.
- **Support a larger-scale evaluation**, ideally with a comparison group, to assess effectiveness and cost-effectiveness, and to identify which elements are critical to success.

Programme description

The Kent and Medway Violence Reduction Unit (KMVRU) funds the Buddi Tag Programme, in which young people identified as being at risk of criminal exploitation are fitted with voluntary electronic GPS ankle tags, provided by the [Buddi](#) company, for an average of six to eight weeks. Young people are referred by a multi-agency team, which includes police, social workers, and Youth Offending Team practitioners.

While wearing the tag, young people receive regular contact and tailored support from KMVRU staff, who monitor their movements and respond to patterns that suggest increased risk. The tag can help young people avoid exploitation by providing them with reason to withdraw from risky situations, making them less attractive to exploiters, and reinforcing behavioural expectations. This support is delivered in coordination with statutory services such as Social Care, Youth Offending Teams, and Early Help, aiming to promote safety, reduce criminal involvement, and strengthen engagement with positive activities and services.

The intended outcomes for young people include greater engagement with support services, reduced contact with peers involved in criminal activity, and ultimately, fewer offences and improved wellbeing, education, and employment outcomes. Appendix 1 shows the programme logic model.

Evaluation aims and approach

In 2023, the KMVRU commissioned the Centre for Health Services Studies at the University of Kent, as part of the National Institute for Health and Care Research Applied Research Collaboration Kent Surrey Sussex, to conduct an evaluation of the effectiveness of the Buddi Tag Programme. It examined whether the programme led to behaviour change in young people, explored how and why the programme might work, identified implementation challenges and opportunities, and assessed cost and sustainability.

The evaluation had an oversight group consisting of three members of the public with experience of working with vulnerable young people, who contributed lived-experience perspectives to the evaluation process.

We used a mixed methods design, combining quantitative data (police records, programme data, questionnaires) and qualitative data (interviews). The evaluation included young people aged 10 to 25 who were fitted with a Buddi tag between June 2023 and June 2024, as well as professionals involved in delivering or referring to the programme. Data sources included police-recorded offence and missing-from-home records from March 2023 until October 2024, local authority-recorded contacts with other services, questionnaires completed by the young people (including psychological measures), interviews with young people and professionals exploring perspectives, experiences and delivery challenges, and budget information.

The key outcome measures were police records of

- suspected offences and suspected violent offences
- days reported missing from home

measured for 3 months before tag fitting and up to 9 months after tag removal.

Appendix 2 provides further details of methods.

Results

Participants

Young people

Over the study period, 69 young people were referred to the Buddi tag programme. Of these, 11 declined to take part in the evaluation. Buddi tags were fitted for 58 young people on at least one occasion, but one participant wore the tag for less than a day and was excluded, leaving 57 young people in the evaluation. Of these, 4 participants were fitted with a second tag during the study period.

The Buddi Tag Programme guidelines are that the tag should be worn for up to eight weeks, but some young people chose to wear it for much longer. The average time wearing the tag was 52 days (range 7 to 234 days).

The majority (90%) of tags were fitted in the young person's home, with the rest fitted in other settings such as police stations or youth hubs. Table 1 summarises the characteristics of the young people at the time of tag fitting, Table 2 sources of referrals, Table 3 services fitting the tag and Table 4 the reasons for referral listed by programme staff.

Table 1. Characteristics of young people at time of tag fitting

		n	(%)
Age (years)	12 or 13	6	(11)
	14 or 15	18	(32)
	16 or 17	32	(56)
	18+	1	(2)
Gender	Female	12	(21)
	Male	45	(79)
Ethnicity	White British	38	(67)
	White Other	16	(28)
	Black or Mixed	3	(5)
Residence	Ashford, Folkestone & Hythe, Dover (South Team)	29	(51)
	Maidstone, Tonbridge & Malling, Tunbridge Wells (West Team)	12	(21)
	Canterbury, Margate, Ramsgate (East Team)	6	(11)
	Medway, Swale (Medway Team)	7	(12)
	Sevenoaks, Dartford, Gravesham (North Team)	1	(2)
	North and South Team involved (young person moved)	1	(2)
Looked After Child		13	(23)

Table 2. Sources of referral to Buddi tag programme

Referrer	n	(%)
Early Help	20	(35)
Police	11	(19)
Social Worker	11	(19)
Youth Offending Team	5	(10)
Adolescent Support Worker	4	(9)
Mental Health Services	2	(4)
Integrated Offender Management	1	(2)
Youth Engagement Officer	1	(2)
Parent	1	(2)

Table 3. Service fitting tag

	n	(%)
Violence Reduction Unit	23	(40)
Early help	16	(28)
Police	8	(14)
Social Worker	5	(9)
Youth Offending Team	5	(9)
Integrated Offender Management	1	(2)

Table 4. Reasons listed for referrals (more than one reason was often cited)

	n	(%)
Open to exploitation	28	(49)
Offending Behaviour/Escalating offences	27	(47)
Drugs/alcohol	9	(16)
Carrying weapons	9	(16)
Missing from home episodes	8	(14)
Anti-social or aggressive behaviour	8	(14)
Shoplifting/thefts	5	(9)
Risk taking behaviour	1	(2)

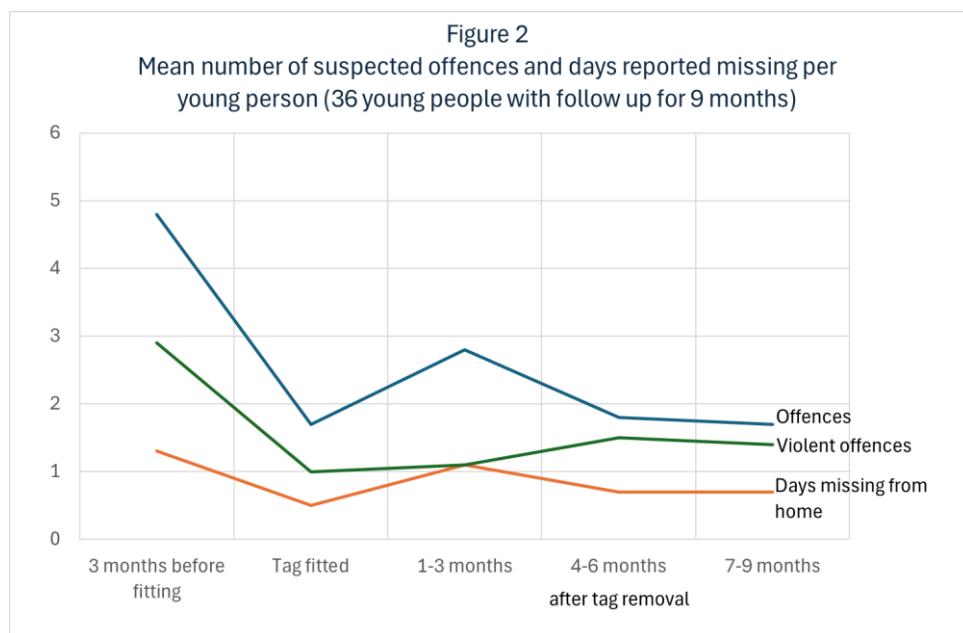
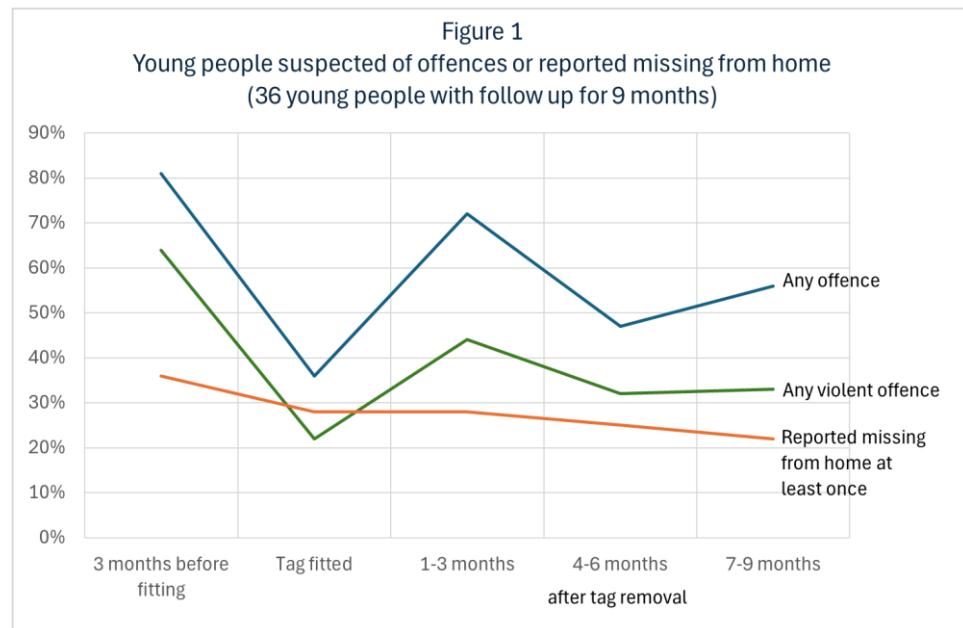
Professionals

We interviewed professionals involved in referral, delivery, and wider support roles. These included:

- Youth Justice Practitioners
- Buddi Tag Programme team members
- Child and Exploitation Senior Practitioners
- Police officers from the Child Centred Policing Team
- Senior Early Help Workers

Key outcome measures

We had data on key outcome measures at nine months after tag removal for 36 young people. These young people had nine month follow up because they were fitted with Buddi tags during the first part of the evaluation, between June 2023 and January 2024. The programme was associated with a clear and sustained reduction in both suspected offending and the number of days young people were reported missing from home. Figure 1 shows the change in percentages of young people with recorded suspected offences or days missing from home from three months before tag fitting to 9 months later. Figure 2 shows the change in means of these measures per young person over the same period. All the 36 young people remained resident in Kent and Medway during the follow up period (based on evidence from contacts with police or other services). This suggests that the findings have not arisen because more prolific offenders moved out of the area.



Suspected offences

The percentage with suspected offences decreased from **81%** in the three months before tag fitting to **72%** in the three months after removal (Table 5). There were further improvements over time. By four to six months after tag removal, the percentage suspected of an offence fell further to **47%** but increased very slightly in the next three months. The average number of suspected offences per person fell from **4.8** to **2.8** between from the three months before tag fitting to the three months after removal (Table 5). This fell further to **1.8** in the four to six months after removal and stayed about the same in the next three months. Suspected violent offences showed a similar pattern (Table 5).

If we assume that without the Buddi Tag Programme the 36 young people would have continued at the same rate of offending as in the three months before tag fitting (48 suspected violent offences over a three month period), we would have **expected 144 suspected violent offences** over nine months. We **observed 88 suspected violent offences** over that period.

Days reported missing from home

The percentage with days reported missing from home decreased from **36%** in the three months before tag fitting to **28%** in the three months after removal. This continued to fall over the following six months (Table 6). The average number of days reported missing per person over each three month period fell from **2.9** to **1.1**. The average number of days missing increased slightly after this but remained much lower than during the three months before tag fitting.

If we assume that without the Buddi Tag Programme the 36 young people would have continued at the same rate of going missing as in the three months before tag fitting (106 days missing over a three month period), we would have **expected 318 days reported missing** over nine months. We observed that they were **reported missing on 144 days** over that period.

Table 5: Suspected offences in young people (YP) followed up for 9 months after tag removal (n=36)

	3 months before fitting	TAG FITTED	3 months after removal	4-6 months after removal	7-9 months after removal
Any offence	81%		72%	47%	56%
Offences per YP (mean)	4.8		2.8	1.8	1.7
Violent offences	64%		44%	32%	33%
Violent offences per YP (mean)	1.3		1.1	0.7	0.7

Table 6. Rates of being reported missing in young people followed up for 9 months after tag removal (n=36)

	3 months before fitting	TAG FITTED	3 months after removal	4-6 months after removal	7-9 months after removal
Reported missing at least one day	36%		28%	25%	22%
Days reported missing per YP (mean)	2.9		1.1	1.5	1.4

We also examined the key outcome measures in the young people who had shorter follow up: 3 months after tag removal for all 57 (data shown in Appendix 3, Tables A1 and A2) and 6 months after tag removal in 47 (data shown in Appendix 3, Tables A3 and A4). The patterns of fall in the rates of suspected offences and being reported missing were similar.

Those who were followed up for shorter periods of time had similar levels of being suspected of crimes and of days reported missing in the three month period before tag fitting, which supports the idea that they would have had similarly sustained positive outcomes had they been followed up for longer.

Outcomes recorded by Buddi Tag Programme Coordinators at tag removal

Thirty two of the 57 young people had positive outcomes recorded by Buddi Tag Coordinators. These outcomes included, most commonly, re-engagement with support services (52% of young people), or accessing further assistance, parents reconnecting with support networks, and returning to education or training. Nineteen young people faced challenges such as continued offending (12% of young people), ongoing family barriers or disengaging with the KMVRU. For others we had no data because they moved out of area.

Mechanisms by which the Buddi tag programme might work

Change in behaviour

Interviews with 31 young people at the point of tag removal suggested that the programme may have provided them with both the opportunity and motivation to make positive changes in their lives.

Many described altering their routines, such as going out less or getting home earlier. Others spoke about shifting their social circles, distancing themselves from others who may have led them into risky situations, with comments like "*I changed friends*" and "*it helped me stay away from certain people.*"

Several young people said the tag gave them a socially acceptable reason to avoid exploitative or uncomfortable situations, explaining that "*I could use the tag as an excuse if I didn't want to do anything*" and "*people would see it and not give me alcohol or not want to be with me, which I know was a good thing.*"

Others described re-engaging with positive activities, for example, one young person said, "*I got involved in boxing again.*"

Other positive responses from young people included

- Many respondents noted that the intervention helped them **make better choices**, stay away from negative influences, and avoid trouble (e.g., "*helped me to stay away from issues in the community*," "*gave me confidence to say no*").
- Some mentioned feeling **supported and held accountable** by the programme, which helped them comply with conditions or improve their relationships (e.g., "*helped people see I was on an order*," "*support offered by workers was helpful*").

- A few highlighted how **others noticed improvements** in their behaviour (e.g., “*everyone has told me I am better on the tag*”).
- The programme enabled **self-reflection** (e.g., “*reminding me what I was doing was wrong*,” “*helped make better choices*”).

Greater engagement with services

Field notes and interviews with both young people and professionals suggested that one of the most valuable aspects of the programme was the strong, consistent relationship built between the Buddi Tag Programme team and the young person while the tag was being worn. This frequent contact, combined with location monitoring, allowed for timely and targeted interventions.

Professionals noted that location data were particularly useful for showing patterns of risk. For example, one young person was found to be regularly visiting an abandoned building late at night, prompting local services to intervene. These data also helped promote collaboration with families:

“I get the location report on a Monday and forward it to the parent or guardian—we have a conversation about it.”

The geographical tracking information also supported intelligence sharing and resource coordination across services:

“It helps us track their movements, link them to areas where there are crimes or concerns, and direct support to those areas to prevent crime and exploitation.”

“We can even use it to prove they weren’t in a location when something happened, showing they weren’t involved.”

Professionals reported that wearing the tag led to increased engagement with other services. In some cases, this included access to other resources:

“We work closely with the council. There’s a pot of money... ‘If you agree to have the tag, we’ll pay for you to join a local football team.’”

However, several professionals raised concerns about the need for follow-up support once the tag is removed, highlighting the risk of reverting to previous behaviours:

“It works really well while they’re wearing it, but we don’t always have the resources to maintain the same level of support afterwards.”

“It’s a great tool in the moment. But without something in place afterwards, we risk them falling back into old habits.”

Service contact data after tag removal supported this picture of ongoing engagement:

- 18 young people had contact with the Youth Offending Team
- 14 were part of the Supporting Families cohort

- 19 engaged with the Early Help team
- 17 received support from Specialist Children's Services

This suggests that many young people remained connected to support systems after the tag was removed, although professionals highlighted the need to strengthen this longer-term safety net.

Changes in self-efficacy, sense of control and wellbeing

Eleven young people completed questionnaires at three points during the programme: when the tag was fitted, when it was removed, and about six months later. These questionnaires used measures of self-efficacy (belief in being able to succeed), locus of control (sense of the extent to which one is in control of what happens in one's life) and wellbeing.

Self-efficacy (belief in being able to succeed)

There was a small improvement in young people's sense of self-efficacy. Average scores went up from 15/25 (at tag fitting) to 19/25 (six months after the tag was removed). Scores under 18 are considered low. This suggests that young people began to feel greater self-efficacy over time.

Locus of control (sense of the extent to which one is in control of what happens in one's life)

Young people showed a slight increase in young people's beliefs about control over what happens in their lives, rather than things just happening to them. Their average score rose from 16/25 (at tag fitting) to 17/25 (six months after the tag was removed). Higher scores reflect a stronger sense of personal control.

Wellbeing

There was a small improvement in mental wellbeing, with average scores rising from 19.7 (at tag fitting) to 21.2 (six months after the tag was removed). The average score for young people aged 16–24 in the general population is estimated to be 23.6, suggesting that these young people have lower levels of wellbeing than average. A score below 20 is considered to suggest low mood or possible depression.

While the numbers of young people included in this part of the analysis were small and the changes weren't large enough to be certain they didn't happen by chance, the results suggest that the programme may have helped young people develop psychological readiness for behaviour change.

The challenges and opportunities of implementing the programme

Programme reach

The Buddi Tag Programme's reach was uneven: over half of the young people engaged were from South Kent (Ashford, Folkestone & Hythe, Dover), and 21% from West Kent (Maidstone, Tonbridge & Malling, Tunbridge Wells). This may mean that South and West areas had more positive and effective working relationships across agencies and sectors making the Buddi Tag programme easier to implement and sustain. Other areas made fewer referrals, which may be due to less partnership engagement and support.

During the evaluation year, only ten Buddi tags were available in Kent and Medway. The total number of eligible young people who could benefit from the programme were it available at a larger scale is unknown.

Professionals highlighted key issues around tag availability:

"Sometimes the difference between waiting a week for a tag to become available—you've missed that young person in that reachable moment. A week later is too late"

"It's quite simple. We need more Buddi Tags. We just don't have enough to meet demand"

Some warned against expanding the programme: *"If we had more tags, I think we would then water down the benefits... If we had one group of ten and they were all on tag, I don't think that would actually help or support any of them".*

There was agreement that the programme should prioritise young people at highest risk of exploitation: *"I would rather three real high-risk exploited kids have it than 10 lower-level cases... I've seen it go on kids where it's just used like a control mechanism".*

Engagement from the Kent and Medway Violence Reduction Unit team was praised: *"But on a day-to-day basis the VRU coordinator for Medway is, I have a fantastic relationship with her, she attends every Contextual Safeguarding Panel".*

Suggestions to improve reach included better promotion and more appealing materials for young people:

"Some jazzier resources around what it actually is for young people be quite nice"

"For me, just a little bit more advertising around it cos, there's still, I mean the social worker turn-around in here is very heavy anyway, but a lot of social workers don't know about it"

Acceptance of the programme by young people, families, and professionals

Of the 31 young people interviewed at tag removal, 17 said they would wear it again. Many reported positive feelings about wearing the tag:

"I wanted to get some freedom back and knew this would help, I really wanted to see my friends and show everyone I could be trusted"

"It helped me to change my way, to stay away from certain people"

"It gave me confidence to say no and made me realise they were not really friends, it also helped me show school I can be different and now they are giving me a new school placement with work experience for next year"

"It helped family, I liked it showing people when it came off that was rewarding to be like I am not as bad"

Some young people gave negative feedback, particularly about charging the tag:

"Charger took too much effort to charge the charger and then charge was too long"

"I went down to my Nans and forgot to take the charger and then it went downhill from there"

"Charging it every day is a pain."

Others noted discomfort, bulkiness and not being waterproof:

"Trying to sleep at night tricky but used to it now"

“The feel of it and it was too big, struggled to sleep with it on”

“It’s a little bulky to hide under a sock”

“Gave me a spotty leg”

“It ruined my summer as I couldn’t go swimming”

These concerns have been reported to the Buddi company, which is addressing them.

Professionals we interviewed were generally positive about the programme:

“It’s becoming hugely popular in our district because it is so successful... We’ve got queues of officers in our district wanting to have access to them.”

“There’s good relationships with VRU, AST managers, and the child-centred policing team... The dynamic works quite well”.

One professional reported a sense of ambiguity about the programme’s purpose—whether it was for prevention or enforcement:

“With this girl, we saw the tag as preventative—to keep her safe. But while we aimed for engagement, the police saw the data and used it as evidence”.

A young person also noted this ambiguity:

“no, the tag was a snitch tag, Police saw where I was and I was arrested for having a knife on me, this made me really angry as then they would turn up where I was with my mates”.

Case study

Case 6, who appeared younger than his teen years, was brought into a police station front counter by his mum due to his admitting to her that he had been selling drugs to school friends on the instructions of an adult male. He said that he had thought this would help in make friends; he did not get any money for the activity. His mum requested advice and support.

He was offered a Buddi tag to remind him about making choices of this kind and enable him to have an excuse for not following instructions to sell drugs, and to show the adult male that he was being monitored so that he would stay away. His parents, although not living together, coparented well and agreed on the plan. He wore the tag for the summer break apart from a short time for a family holiday overseas. He rejoined judo classes and made a new friendship group. The adult male remained away from him.

It was agreed to remove the tag when he started at a new school to avoid judgements from others.

He engaged well with Catch-22 mentoring services and as did he and his mum with the Early Help Team.

Appendix 4 provides further case descriptions.

Programme costs

The Buddi Tag programme shows promise for generating net savings to society.

The total annual cost of running the programme, based on 2024 prices, was approximately **£53,300**. This includes £27,000 for renting ten tags (£225 per tag per month) and £26,300 for staff time, covering a programme lead (0.3 full-time equivalent) and four staff involved in fitting tags (each at 0.1 full-time equivalent).

Fifty-seven young people engaged with the programme during this period, with an average duration of wearing a tag of 53 days. This means a cost of about £935 per young person and approximately £17.65 per tagged day.

These cost estimates do not include other expenses such as employer contributions, staff time for making referrals, training, travel, or facility overheads. They also exclude potential costs related to increased use of other statutory services, such as Early Help or Youth Offending Teams.

Our findings suggest that the Buddi Tag Programme could result in a significant reduction in violent offences. We found evidence that suspected violent offences were reduced from 144 (expected) to 88 (observed) over a nine month period, suggesting avoidance of 56 violent offences. Even if only 14 (25%) of these represented confirmed violent offences, **the savings to society could be between £83,000 and £200,000** for these 36 young people, based on Home Office estimates of the societal cost of a violent offence: £5,930 (without injury) to £14,050 (with injury).

The savings are likely to exceed the cost of the Buddi Tag Programme, suggesting that it may offer a significant return on investment.

One professional noted that as the Buddi Tag programme becomes more embedded in practice, it could become increasingly cost-effective. This might be achieved by training and supervising additional professionals to fit tags and monitor tag data, thereby reducing dependence on a small number of specialist staff and increasing scalability.

Conclusions

The Buddi Tag Programme is a promising intervention for young people at risk of exploitation, with early signs of sustained ability to reduce violent crime. Among the **36 young people** followed up for nine months after tag removal, the number of suspected violent offences and missing episodes fell, and stayed lower, after the tag was removed. These changes could not be explained by young people with worse offending records moving out of area.

The findings suggest that the Buddi Tag Programme has helped young people take steps toward safer and more structured lifestyles. Young people described the tag as helping them avoid risky people and places, rebuild trust, and regain opportunities like school placements. Modest improvements in wellbeing, self-efficacy, and sense of control suggest the programme may lead to greater psychological readiness to avoid criminal activity. Difficulties, including the discomfort of wearing the tag, were reported, as well as concerns about surveillance. Some young people felt the tag helped protect them; others feared it acted more as a tool for control.

Success depended on the role of Buddi Tag Coordinators, who supported both engagement and safety. Professionals strongly supported the programme. However, access was uneven across Kent and Medway.

The programme cost approximately £935 per young person, amounting to £33,660 for the 36 individuals with follow-up data on missing episodes and suspected offences. This cost **may be more than offset** by the potential savings to society from avoided violent offences. Beyond financial savings, the programme may contribute to improved engagement with education and support services, and positively affect life chances for young people.

The study was small in terms of numbers of participants and lacked a control group, with a limited assessment of costs, so a larger evaluation should be carried out to confirm these findings and understand more precisely the potential benefits to society. Appendix 5 provides a commentary on the design of a future evaluation.

The Buddi Tag Programme may be a valuable addition to the broader system of support for young people at high risk of criminal exploitation. With improved equity of access, increased awareness among referrers, technical enhancements to the device, and integration into routine practice, the Buddi Tag programme has the potential to offer a scalable means of supporting behaviour change and enhancing safety for both young people and their communities.

National collaboration and future directions

A National Core Working Group has been established and is led by the KMVRU Buddi Tag Lead Co-ordinator in response to increasing requests for information about the intervention. The group brings together representatives from Violence Reduction Units and police forces across the UK, reflecting growing national interest in the Buddi Tag Programme. This forum fosters cross-regional learning and enables the sharing of emerging practices and insights related to programme implementation.

The group also serves as a platform to address common challenges, such as securing engagement from key referral partners, and to enhance collaboration among agencies involved in early intervention efforts with at-risk young people.

To date, 26 attendees from diverse areas have participated in the Core Working Group, including representatives from Sussex, Suffolk, Scotland, Hampshire, Southampton, West Midlands, Shropshire, Cambridgeshire, Derbyshire, Nottinghamshire, Staffordshire, West Yorkshire, Somerset, Cornwall, Bath, and the Buddi Tag team.

This cross-regional collaboration will not only facilitate the sharing of emerging practice and implementation learning but also creates valuable opportunities for a wider, more coordinated evaluation. By supporting consistent data collection, highlighting contextual differences, and encouraging shared evaluation frameworks, the group lays the groundwork for building a more comprehensive evidence base on the programme's effectiveness and scalability.

Recommendations

Continue and expand the Buddi Tag programme, prioritising areas with lower uptake and investing in more tags.

Sustain the coordinator role with a lead co-ordinator at the forefront of the programme, ensuring high-quality support for both professionals and young people and consistent delivery across the region.

Raise awareness among professionals and referrers through targeted communications and training.

Improve routine monitoring of outcomes (e.g. offences, missing episodes) to monitor impact and longer-term outcomes.

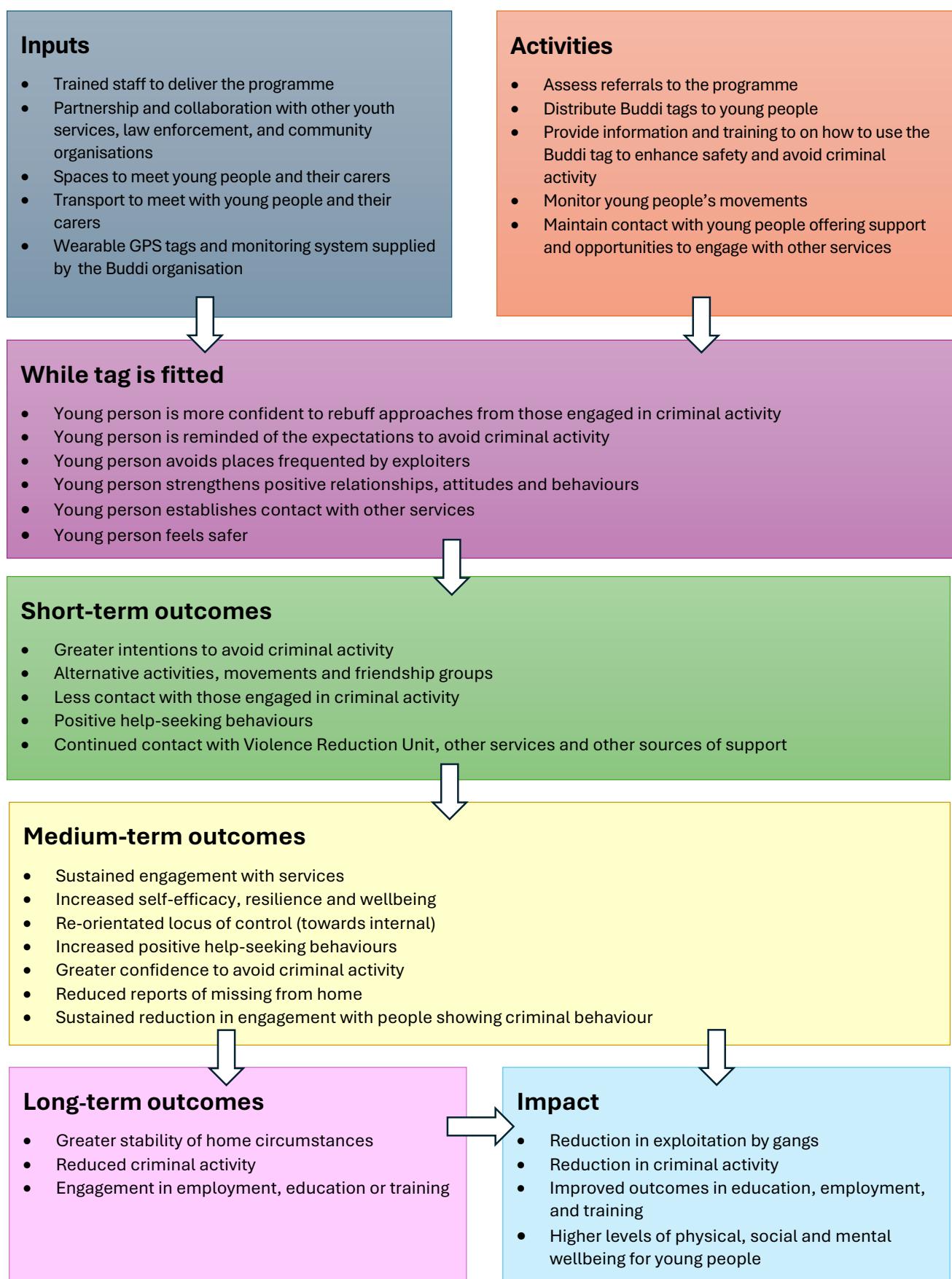
Commission a larger-scale evaluation with a comparison group and cost-effectiveness analysis to build stronger evidence

Liaise with the Buddi Tag company to act on young people's feedback to improve tag comfort, battery life, and information materials.

Clarify the programme's purpose (prevention vs. enforcement) to professionals and young people

Plan for long-term integration with other services, including potential to scale the model and align with national safeguarding goals.

Appendix 1: Logic model



Appendix 2: Methods of evaluation

Design

We used a mixed methods design, collecting and analysing

- quantitative and qualitative data young people who were recruited to the programme
- qualitative data from professionals

Participants

- Young people aged 10 to 25 enrolled with the programme, fitted with a Buddi tag and who wore it for at least one day during 1st June 2023 to 6th June 2024
- Professionals working within the KMVRU team and those referring to the Buddi tag programme

Data collected

Records kept by KMVRU staff about young people

- age, sex, ethnicity
- area of residence within Kent and Medway, referring service, reasons for referral
- dates of tag fitting and removal

Police records of suspected offences recorded in Kent and Medway from the Athena system for 3 months before tag fitting to up to 9 months after removal of the tag

Police records of dates reported to the police as missing from home for 3 months before tag fitting to up to 9 months after removal of the tag

A brief semi-structured interview with the young person at tag removal about reasons for wearing the tag, positive effects of the tag, problems, what could have been done better, whether they would wear a tag again and whether they would recommend it to a friend.

Questionnaires completed by the young people at three timepoints: tag fitting, tag removal and 6 months after tag removal (young people were offered a £20 Love2Shop voucher for completing these). These included measures of

- Wellbeing using the Short Warwick Edinburgh Mental Wellbeing Scale (<https://pubmed.ncbi.nlm.nih.gov/27853963/>). A score of <20 is considered to indicate possible depression. (<https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/using/howto/>)
- Self-efficacy using the validated scale used in the Northern Ireland Young Persons' Behaviour and Attitude Survey 2019, which scores between 5 and 25; scores under 18 are considered to be low; (<https://www.nisra.gov.uk/news/young-persons-behaviour-attitudes-survey-2019>).
- Locus of control using another validated scale from the Northern Ireland Young Persons' Behaviour and Attitude Survey 2019, which scores from 5 to 25).

- School/training attendance, work
- Stability of home circumstances

Field notes of discussions with KMVRU team members

Examination of operational budgets provided by KMVRU team members

Semi-structured interviews with professionals asking about their experiences of the programme, its reach, its effectiveness, implementation strengths and weaknesses, and issues about sustainability of the programme.

Local authority records of contacts for 3 months before tag fitting to up to 12 months after for

- Looked after children
- Youth offending team
- Early Help team
- Child protection team
- Supporting families team
- Specialist children's services

Further details of the methods including data collection instruments can be provided on request.

Appendix 3: Tables showing outcome data for young people followed up for 3 and 6 months

Table A1. Suspected offences in young people followed up for 3 months after tag removal (n=57)

	Before tag fitting	After tag removal
	Up to 3 months	1 to 3 months inclusive
Any suspected offence (%)	43/57 (75.4)	39/57 (68.4)
Mean number of suspected offences	3.8	2.8
Suspected violence against the person (%)	31/57 (54.4)	24/57 (42.1)
Mean number of suspected violent offences	1.2	1.0

Table A2. Rates of being reported missing in young people followed up for 3 months after tag removal (n=57)

	Before tag fitting	After tag removal
	Up to 3 months	1 to 3 months inclusive
Reported missing at least one day (%)	24/57 (42.0)	20/57 (35.1)
Mean number of days reported missing	3.1	1.5

Table A3. Suspected offences in young people followed up for 6 months after tag removal (n=47)

	Before tag fitting	After tag removal	
		1 to 3 months inclusive	4 to 6 months inclusive
Any suspected offence (%)	36/47 (76.6)	35/47 (74.5)	20/47 (42.6)
Mean number of suspected offences	4.3	3.1	1.9
Suspected violence against the person (%)	27/47 (57.4)	22/47 (46.8)	15/47 (31.9)
Mean number of suspected violent offences	1.2	1.2	0.7

Table A4. Rates of being reported missing in young people followed up for 6 months after tag removal (n=47)

	Before tag fitting	After tag removal	
		1 to 3 months inclusive	4 to 6 months inclusive
Reported missing at least one day (%)	17/47 (36.2)	14/47 (29.8)	12/47 (25.6)
Mean number of days reported missing	2.6	1.3	1.4

Appendix 4: Case descriptions

Case 1

Case 1 had been identified as a significant figure in a young street group known for antisocial behaviour and offending in their local area. The activities of her and her group have had a notable impact on the community.

She was offered a Buddi tag to aid in understanding the expectations regarding her behaviour for community safety, with the goal of reducing offences and minimizing local harm.

The buddi tag provided real-time monitoring of her movements, ensuring regular oversight. Despite the tag, it was observed that she and her group were traveling across districts on the train, indicating potential involvement in activities beyond their local area. Briefings about her were disseminated to the relevant local authorities, British Transport Police and rail enforcement, highlighting locations of concern.

Officers conducted checks at identified locations, leading to the young person being found at McDonald's in a neighbouring district. During the encounter, she was found to be in breach of a Community Protection Notice and in possession of a large kitchen knife, resulting in her arrest.

The GPS monitoring revealed the young person's frequent visits to an address in another district. It was discovered that the address belonged to a 13-year-old whose parents were unaware of the young person's influence. The younger child's school attendance had been declining and they were showing concerning behaviours. A support plan was established to assist the child and address the negative influences.

The GPS buddi tag provided crucial intelligence, enabling law enforcement to intervene and prevent harm to the community.

Case 2

Case 2 was originally from the Metropolitan Police area and had been arrested for possession of a firearm. He moved to Kent while on court bail, because he was facing threats in London. In Kent he engaged with the Youth Offending Team and the Adolescent Response Team.

During his interactions with the teams in Kent, the young person disclosed that he had been further threatened by individuals in London who were attempting to shift the blame onto him for the firearm offence. He also reported being offered money to plead guilty to the offence.

The young person requested a GPS tag to be fitted in case of kidnapping or other harm, offering him a sense of safety and security. This also allowed professionals to monitor his movements, particularly concerning return trips to London.

The young person agreed to wear the GPS tag for three weeks. Throughout this period, he did not return to London. The tag reminded him of the support and monitoring in place.

The young person expressed gratitude for the safeguarding measures, monitoring, and additional support and said that the buddi tag, made him feel safer and reassured.

Case 3

Case 3 had had several missing episodes and struggles with mental health for which she had been admitted to hospital. She had been involved in various incidents of anti-social behaviour and shoplifting and was

known to misuse substances on occasion. She agreed to have a buddi tag over the summer to help her make good choices and support safeguarding. A keen and talented footballer, she wanted to achieve in this sport and so was motivated to change her behaviour. Her parents were very supportive and worked well with professionals.

During the seven weeks of wearing the tag, she was reported to police having been allegedly seen carrying out low-level offending. However, the tracking data proved that she had not been at the locations at the times in question, meaning that she was exonerated. The young person made significant improvements to behaviour overall during the summer holidays.

She asked that the tag be removed when the football season started because of the risk of injury to others or damage to the device.

Case 4

Case 4's offending and risk-taking was noted to increase significantly around certain peers and when intoxicated.

He wore a buddi tag for several weeks and during that time, he showed an improvement in behaviour overall. He avoided particular locations and people who were a poor influence and had no involvement in offending behaviours. He had one missing episode with a peer who was known to be an exploiter. At the time, his tag was out of battery, which may have been deliberate (in other words, it is possible that he did not charge it).

Case 5

Case 5 was being exploited by males to carry weapons and drugs to different locations for them. She had also been a victim of rape linked to this activity.

She was moved to another district for safety, and as part of the safety package was asked if she would consider a Buddi tag to make her unattractive to exploiters and enable her to use the tag as an excuse not to carry out exploiters' instructions. The tag was a reminder that she was being supported, and of the expectations of her behaviour. While she wore the tag for eight weeks, she engaged well with other agencies and returned to college after the summer holidays.

Appendix 5: Commentary on future evaluation

Outcome measures

Measures using police records of suspected offences and missing from home reports appear to be robust ways of monitoring efficacy of the programme. Were we to evaluate the programme on larger scale, we would gather data from the Athena system nationally rather than just Kent and Medway, to ensure that data are not lost on young people who move out of the area.

Data on other statutory service use were difficult to interpret, although with the knowledge that we have now on services available to the young people and how they record data, we could develop a more robust way of collecting these.

We recognise that collecting data from the young people using questionnaires is challenging in this context – only 20% of young people completed questionnaires at all three time points (at tag fitting, tag removal and 6 months after removal): it is likely that sample who completed questionnaires is not representative of the whole population of eligible young people. Collecting these data is unlikely to be feasible on a large scale.

Our findings on school attendance and stability of living circumstances were limited because of our dependence on data from the questionnaires. Future evaluations could examine ways of collecting these data more comprehensively from the young people, for example, by linkage with education data for school attendance, or benefits data for employment.

Qualitative data

Any future evaluation would be enhanced by the addition of qualitative interview data from the young people in the months following tag removal, to understand better how the programme may work in terms of attitudes, behaviours and engagement with other activities and services.

In addition, qualitative data to understand the perspectives of parents and guardians of the young people may also help us to understand how best to support these young people to achieve the best outcomes.

Design of a further evaluation

The gold standard of a randomised controlled trial of the Buddi tag programme is unlikely to be feasible: individual randomisation is unlikely to be possible in this population, and in any case, randomising is likely to make the sample studied unrepresentative, because young people who are going on to have better outcomes would be more likely to agree to randomisation. A cluster randomised controlled trial would need many police forces to take part to achieve adequate sample size and it is unlikely that these could be recruited over a feasible period of time. In addition, it is likely that it would be very difficult to avoid ‘contamination’ of police forces that did not have access to the Buddi tag programme – they may set up their own parallel systems.

However, a quasi-experimental design comparing outcomes in young people on the Buddi tag programme with non-randomised controls could be feasible. There are a number of possible methodological approaches that could be explored to ensure that differences between intervention and control groups are minimised or controlled for. It is likely that this kind of evaluation would require the participation of other police forces – probably several, so that there would be a sufficient number of young people eligible for the Buddi tag programme to be able to provide the numbers of participants to show an effect. Finding a suitable control group within Kent and Medway would be challenging because young people who do not meet the criteria for the Buddi tag programme are likely to have different trajectories anyway.