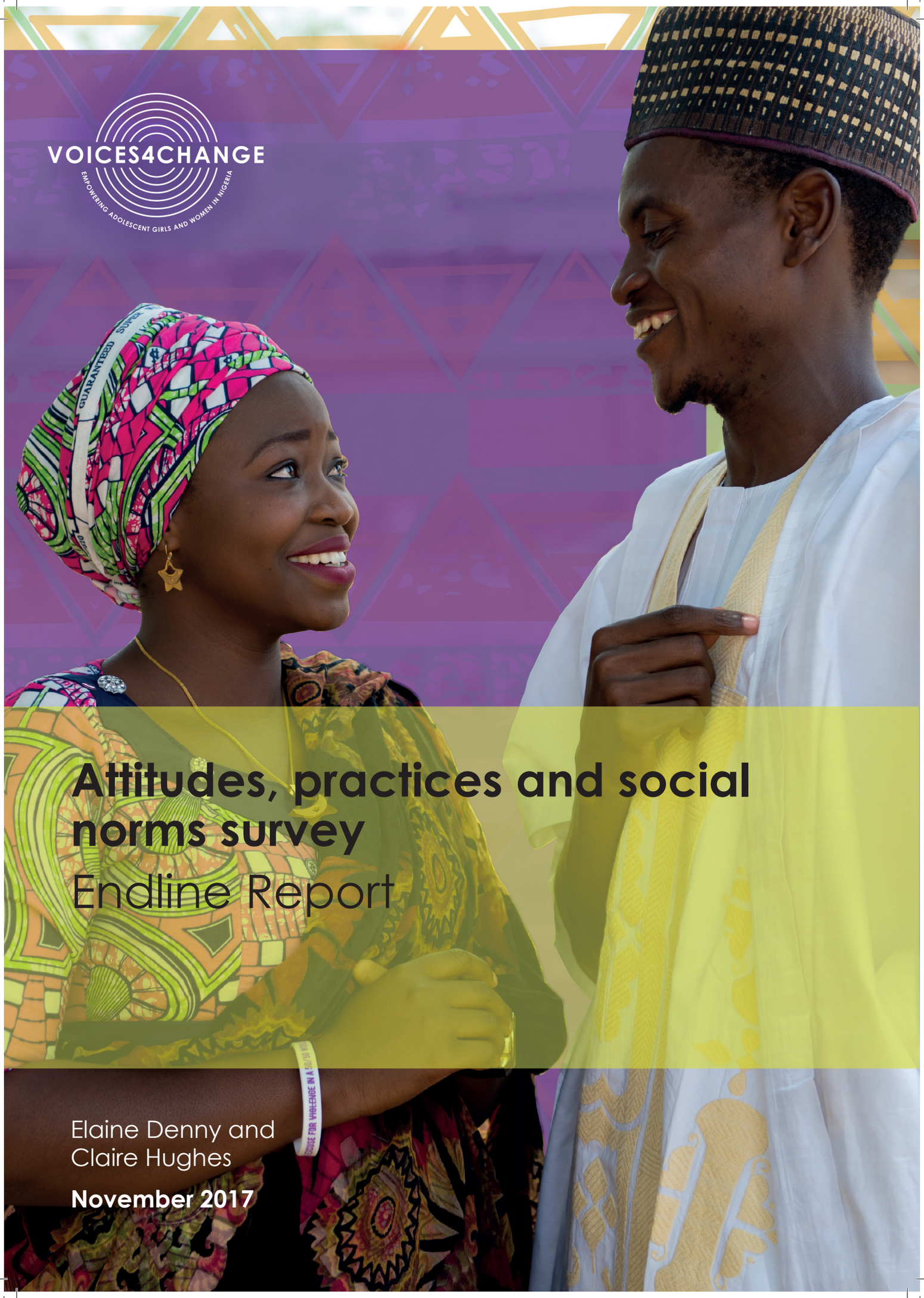

Attitudes, practices and social norms survey

Endline Report

Elaine Denny and
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November 2017

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This report reflects the work of many, many people who: conceptualised and brought Voices for Change to life, adapting its approach to continually improve results; who diligently interviewed young people about their gender attitudes and behaviours and recorded their findings; who crunched the data, analysed it and helped interpret findings; and who guided the several iterations of this report. We are enormously grateful for your contribution and efforts. We wish to extend special thanks to: the research team at Practical Sampling International who worked with us on the Attitudes, Practices and Social Norms Survey throughout the life of the programme; to Andrew Pinney and the excellent team of data crunchers at Statistics for Sustainable Development; to Emeka Nwankwo, V4C's Results and Measurement Lead who dedicated himself to the Survey, planning and co-ordinating data collection, supporting the research team, analysing and interpreting the findings; to Modupe Taiwo, Mansir Nasir, Usman Abba, Wumi Asubiaro-Dada, and Patience Ekeoba, technical leads on Voices for Change, for their orientation and insights, which informed the design of the Survey and the interpretation of findings; and, of course, to V4C's leadership team, especially Caroline Enye, our inexhaustible team leader and Cathy Gaynor, our astute Technical Director, but also Rachel Yates, Joanna Clarke, Sue Phillips and Saudatu Mahdi, key figures in the partnership implementing Voices for Change; and finally to Kirsty Milward whose research understanding how change has happened through Voices for Change brought further insight and clarity to the findings in this report. The last word of thanks is reserved for those DFID Advisers and senior managers who had the courage and foresight to support and nurture this ground-breaking programme. We feel privileged to have had the opportunity to work with all of you and hope that you can take pride in the results we have collectively achieved.

Section 3

Section 4

Section 5

Appendicies

Abbreviations and acronyms

APSN	Attitudes, Practices and Social Norms Survey
CDA	Community Development Association
DFID	UK Department for International Development
DHS	Demographic and Health Survey
EA	Enumeration Area
GEO	Gender and Equal Opportunities
HS	High school
LGA	Local Government Area
NHREC	National Health Research Ethics Committee of Nigeria
NPC	National Population Commission
ODK	Open Data Kit
PA	Purple Academy
PSI	Practical Sampling International
PSU	Primary Sampling Unit
ToC	Theory of Change
VAPP	Violence against Persons Prohibition
VAWG	Violence against women and girls
V4C	Voices for Change

Executive summary

Voices for Change (V4C) is an innovative five-year programme (2012-2017) supported by the UK Department for International Development (DFID) which seeks to strengthen the enabling environment for young women's empowerment in Nigeria using a social norms marketing approach. The results are drawn from the programme's Attitudes, Practices and Social Norms survey (APSN), one of the first longitudinal surveys designed to measure social norms change globally (see panel below). This report presents the endline results of the ASPN.

The Voices for Change Programme

V4C focuses on changing young people's attitudes and practices in three main behavioural areas, violence against girls and women, support for women's role in decision-making, and support for women in leadership positions, as a means of opening up space for young women to take greater control over their life.

V4C's Attitudes, Practices and Social Norms Survey

- Mixed methods panel survey exploring young people's attitudes and practices and their perceptions of what others important to them believe and do
- Measures Purple related activities
- Population representative sample of 4,798 young people aged 16-25 year in four focal states, Enugu, Kaduna, Kano and Lagos
- Four rounds of data collection over the five-year life of the programme
- Difference in differences design to understand the effect of V4C interventions without a control group
- Supplemental survey added in rounds three and four to understand the changes amongst young people who participated in V4C's most intensive interventions

Guided by the social ecological approach[1] and social norms theory,[2] V4C's implementation approach anticipates change happening through engagement in three domains:

- **Self,** where V4C encourages young women and men, as well as key influencers to acquire knowledge and skills about gender equality that catalyse a process of personal transformation;
- **Society**, where V4C's 'Purple' branded communications campaign seeks to catalyse change in social norms at the state level by opening up public dialogue about gender norms; and
- **Institutions**, where V4C has sought to strengthen women's rights in legal frameworks and in budgeting processes, and enhance women's political participation.

Simultaneous action in the three domains is expected to generate synergies. So, individuals involved in personal change (Self) are encouraged to diffuse positive gender attitudes and behaviours to others. Similarly, the branded communications campaign (Society) makes individuals contemplating change feel part of a wider social change, instilling confidence to act.

Overall changes in attitudes and behaviours

APSN endline findings suggest population-wide changes in young people's gender attitudes are occurring. Between 2014 and 2017, 2.4 million young people, or 89 per cent of the target population in the focal states, show positive attitude or behaviour changes in at least one of the three key behavioural areas. Looking at changes by behavioural area, there is a minimum of one million young people who have improved their attitude or behaviour in each of the three areas. There is most progress in attitude change, especially in relation to VAWG and women's leadership. There are however also sizeable improvements in behaviours, especially in relation to VAWG.

The reach of V4C's brand, Purple

For V4C to effect large-scale change, its brand, Purple, must have good reach amongst young people in target states to create a sense of society-wide change. By the end of the programme, 47.7 per cent of young people in the target states recognised at least one form of Purple programming, representing 1.14 million young people. Purple branding has been successful in communicating its message: a total of 71.9 per cent of young people across the four states who recognised Purple correctly identified its logo as being associated with concepts such as 'gender equality', '50/50', and 'human rights'.

On average, Purple reached young people who were slightly more educated and less poor than each state's average demographics. However, programme effects appear to be similar regardless of one's socioeconomic status, meaning Purple programming is equally effective across the wealth groups. Radio was

1 See for example: Heise, L. (1998) 'Violence Against Women, An Integrated, Ecological Framework'. Violence Against Women, 4(4), 2622–90; What are the Social Ecological Model (SEM), Communication for Development (C4D)? Module 1, UNICEF C4D, New York www.unicef.org/cbsc/files/Module_1_SEM-C4D.docx; and Sallis and Owen (2002), cited in Suruchi Sood, Drexel Desk Review

2 Social norms theory proposes that socially rooted behaviours are best influenced and changed by targeting reference groups, rather than isolated individuals. See World Bank. 2015. World Development Report 2015: Mind, Society, and Behavior. Washington, DC

found to be the medium most successful in reaching poorer, less educated young people.

Population-wide changes associated with V4C programming

For **women's role in household decision-making**, Purple is associated with positive changes in young people's attitudes and practices. Any Purple exposure correlates with larger positive change in how much people say that a woman's opinion matters in their own households, compared to those who have not been exposed to Purple.

For **women's leadership**, overall, men (but not women) exposed to Purple programming show a larger increase over the course of the programme in the number of women they see in leadership positions, compared to young people not exposed to Purple. Both men and women show more positive change in the approval of women in leadership positions, compared to people not exposed to Purple, suggesting that, with time, further behaviour change in this area may follow.

The APSN findings for Purple's contribution to changing attitudes towards **physical VAWG and its perpetration** are mixed, making it difficult to pick out clear trajectories. Overall, we find that there is no average correlation between most Purple exposure and changes in household VAWG as reported by both men and women, but there are considerable state variations. In Kaduna and Kano States, Purple programming correlates with increased reported VAWG among men but interestingly, this effect is not observed among women, suggesting that Purple programming may be making men more aware of what constitutes violence and as a result, they report a greater incidence than previously. For silencing of women, we find that Purple shows no correlation with changes for women across the four states but for men, Purple correlates with increased approval and commission of silencing over the programme's lifespan.

The APSN provides useful insights into TV audience responses to different approaches to treating VAWG issues. It finds that discussions of VAWG correspond with very different outcomes compared to TV scenes that actually portray VAWG. The more people say they currently hear '**talk about physical violence** against women on TV and on the radio', the less tolerant of VAWG they become. Conversely, the more people say they **see depictions of VAWG** on TV and the radio, the less positive change occurs on average in their attitudes toward VAWG between 2014 and 2017.

In line with V4C's social norms approach, the APSN has measured **young people's perceptions of others' (who are important to them) expectations.** Overall, young peoples' perceptions of what others (important to them) approve of have changed in similar ways to their own attitude and behaviour changes. Purple exposure is correlated with both men and women expecting others to be more supportive of women making decisions in the respondents' own households and of women standing for leadership now, compared to expectations in 2014. There is however no correlation between Purple exposure and changed expectations of others' (dis)approval for physical VAWG.

For V4C, improving young people's attitudes and behaviours relating to women's decision-making, women's leadership and VAWG was a means to **improve the enabling environment for young women's empowerment.** Overall, the number of positive attitudes and behaviours held by young people is increasing. Fewer Purple and non-Purple people[3] do not hold any positive norms now, compared to 2014, whilst more Purple and non-Purple people hold all three positive norms now, compared to 2014. The largest gains in the three norm category (people who report positive behaviours in all three target areas of decision-making, leadership, VAWG). are seen for Purple young people.

Purple exposure is associated with larger increases in **how much people say they think about gender issues.** This association is observed in both the North and the South of the country, and for both men and women. This is an important finding as it indicates the potential for future attitude and behaviour change.

Purple men and women have also showed larger gains in their **potential to influence others** compared to people who did not recognise Purple programming. This is important as V4C's theory of change assumes young people will 'diffuse' their new attitudes and behaviours and encourage others to behave similarly.

V4C's experience of **using the online space** – the iampurple.ng website, Purple Academy, and social media – to promote attitude and behaviour change amongst young people shows that it can be a challenging arena through which to influence. APSN data shows that interventions such as Purple Academy, V4C's online gender awareness course, which engages online users substantively, can have a positive effect on how young people think about gender issues. The APSN found that young people with intensive Purple Academy engagement (completion of one module) reported 4-8 times greater change in their support for gender equality, compared to those with general Purple Academy recognition. However, results can be undermined if young people have only superficial engagement with Purple or are accessing unmoderated online content which is less supportive of gender equality.

Changes in young people's attitudes and behaviours amongst V4C intensive intervention beneficiaries

The supplemental APSN measured changes in attitudes and behaviours of young people who participated in V4C's intensive interventions (See panel below). Findings from the supplemental survey show much larger positive change reported for participants in intensive interventions, compared to the general population. Overall, effects for intensive V4C interventions appear to be strongest among men, with Purple being associated with dramatically higher rates of change and positive beliefs compared to men in the general population.

3 A 'Purple' person refers to someone who reported familiarity with any of the types of V4C programming we bundle together in the overall assessment. These include: Purple Tinz, logo/brand, billboard, and physical safe spaces.

Purple branded interventions measured by APSN

- Physical Safe Spaces: personal transformation courses, conducted in selected institutions of higher education with groups of young men and women.
- Virtual space - Purple Academy: an online space for young people to reflect on gender, relationships, VAWG and financial management
- www.iampurple.ng (mobile site): an online space with chat, quizzes, news items and chance for sharing, targeting feature phone users
- Brand Ambassadors: young people in post-secondary institutions responsible for promoting the Purple brand to other students
- Listening Panels: Randomly selected group in target areas that collectively listen to Purple Tinz radio show and report back
- Mens' Networks: existing groups of men which associate around religion, football, professional bodies and now incorporate gender equality. For example, the Catholic Men's Association

V4C activities not measured under APSN (not Purple branded);

- Reflective training for Religious and Traditional Leaders: exploring how power grants men privileges which leads to unequal opportunities for women and girls
- Women's Political Participation Platforms: bringing together women to demand for increase in women's participation in leadership and political processes
- Support for passage of VAPP and GEO bills; technical and financial support to coalitions promoting the passage of VAPP and GEO at Federal level and in target states
- Reinvigoration of Gender Technical Unit – National Assembly: building internal capacity for legislative response to gender
- Gender Hub: an online knowledge hub for practitioners, academics, policy makers providing e-learning opportunities as well as vast range of knowledge products
- Generating evidence to support change: Being a man in Nigeria research report and Young People and Change in Nigeria.

The supplemental APSN also found that young people involved in V4C's Physical Safe Spaces were diffusing their positive gender attitudes and behaviours to others with strong effects on the latter's attitudes and behaviours. For each safe space participant, four others know about the intervention. Self-reported change on key gender indicators is much higher for people indirectly exposed to Physical Safe Spaces, compared to others in the general population. In some cases, these changes are even larger for people with indirect exposure to intensive programming than for the people who were directly involved in Physical Safe Spaces. This may be because friends of Physical Safe Space participants were not as progressive in their original attitudes and behaviour, so contact with the ideas and attitudes from their Physical Safe Spaces friends catalysed stronger change.

Conclusions

The APSN endline results demonstrate that large scale changes in young people's gender attitudes and behaviours have taken place in V4C's four target states over the 2014-2017 period. Whilst we are not able to determine the exact contribution V4C has made to these improved attitudes and behaviours, the APSN endline results present compelling evidence that Purple has been an important driver of change in almost all areas. Furthermore, the V4C contribution to change that is detected by the APSN is likely to represent an underestimation of its actual contribution due to young people and key influencers diffusing their new attitudes and behaviours without making direct links to V4C or its brand Purple.

The APSN results give some credence to V4C's theory of change[4] as they show that V4C actions in the Self and Society domains are having a positive effect, irrespective of cultural context, or the original starting point in a state.[5] In the Self domain, Physical Safe Spaces are found to be particularly effective, especially given their ability to mobilise young people to diffuse new attitudes and behaviours to others. In the Society domain, radio is one of the most effective methods of promoting positive gender attitudes and behaviour, especially outside of media-saturated Lagos, and has been most successful in reaching poorer groups. In addition to radio, V4C has intentionally taken forward a multi-media campaign to saturate young people with consistent messages from different sources, giving a sense of society wide support for new norms

The one area where V4C has had limited effect is in changing young people's attitudes and behaviours to VAWG. The reasons for this are difficult to ascertain but could include people being made more aware of what constitutes violence and therefore reporting violence where previously they would not, or factors other than social norms being strong influencing factors.[6]

The APSN survey has also highlighted the challenges associated with using the online space to reach out to, and influence, young people. Online spaces require careful moderation to be effective but even with this, there is a likelihood that online users accessing other websites or social media platforms which are not regulated in the same way, and are thereby exposed to counterproductive views, which can undermine results achieved.

4 See 'How Change Happens' for an exploration of how V4C's theory of change has worked in practice.

www.v4c-nigeria.com/wp-content/uploads/2014/09/HCH-full-report_FINAL_WEB.pdf

5 The APSN survey did not measure the effects of V4C's work in the Institutions domain.

6 For more in-depth learning on V4C's experience of changing attitudes and behaviours towards VAWG see Lessons from Nigeria on preventing violence towards women and girls through social norm change, V4C Learning Paper www.v4c-nigeria.com/wp-content/uploads/2014/09/1624-V4C-LP-VAWG-WEB.pdf

By measuring the effects of the V4C programme on young people's attitudes and behaviours, the APSN survey has contributed to deepening understanding about what works, and what doesn't, for social norms approaches to attitude and behaviour change in Nigeria.[7] Conducting the APSN survey to measure these changes has been a learning process in itself. Lessons learnt are the subject of a separate paper, Measuring changes in social norms: learning from Voices for Change, available online.[8]

7 V4C has published a range of learning products on different aspects of the programme, see www.v4c-nigeria.com/resources/

8 www.v4c-nigeria.com/wp-content/uploads/2014/09/1624-V4C-LP-Measuring-Change-2-COL.pdf

Section 1: Introduction

V4C is a five-year programme (2012-2017) supported by the UK Department for International Development (DFID) which seeks to strengthen the enabling environment for young women's empowerment in Nigeria.

It does this by focusing on changing people's attitudes and practices in three main areas: violence against girls and women, acceptance of women's role in decision-making, and of women's leadership. Interventions adopted promote change on three levels: the individual, society and within formal institutions. The programme specifically targets three million young women and men aged 16-25 in four focal States: Enugu and Lagos in the South of the country, and Kaduna and Kano in the North.

The Attitudes, Practices and Social Norms survey (APSN) is V4C's main approach to measuring changes in attitudes and behaviours among young people in the three main areas in the four target states. V4C has also applied other measurement approaches to deepen our understanding of change amongst particular target groups and to understand how change is happening. A synopsis of V4C's achievements and the learning gained, drawing on this wider set of datasets is available in V4C's paper 'Strengthening the enabling environment for young women's empowerment in Nigeria: Achievements and learning from Voices for Change'. This report presents the programme's endline results gathered through the APSN.

1.1 Voices for Change Programme Overview

The programme specifically targets young people as they are seen to be the most receptive to new ideas and keen to shape their world, and well placed as the leaders, parents and teachers of the future. However, it is recognised that they are only likely to have the necessary social influence to instigate society-wide change during adulthood. The work with key influencers; religious and traditional leaders, radio personalities, prominent men and women was central to achieving society wide support. The programme therefore expects that initial change will be observed within a few years of programme implementation, while the establishment of new behavioural norms in the three main areas occur over a generational timeframe. For this reason, the programme was expected to be a first phase in a twenty-year vision of social change.

Understanding the Social Ecological Model and social norms theory

The **Social Ecological Model** posits that behaviours are shaped by influences in five different levels, individual, interpersonal, community, organisational, and policy/enabling environment, all of which need to addressed to change behaviour.

Social norms theory recognises that individuals' behaviours are often shaped by behavioural expectations within a social group. People adopt certain behaviours because they believe that most people in their reference group (the people who are important to them) behave in this way and that people in their reference group expect them to behave in this way. To change behaviours that are shaped by social norms requires influencing a social group, rather than isolated individuals.

V4C's implementation approach has been guided by a theory of change (Figure 1), developed and evolved by the V4C team during the life of the programme. Informed by the social ecological approach[9] and social norms theory, it anticipates change happening through engagement in three domains 'Self', 'Society' and 'Institutions'. The domain of the 'Self' recognises how deep-seated personal transformation offers the foundation for diffusing changes more widely. The 'Society' domain is the focus for changing social norms and encouraging people towards a gender equality movement. The 'Institutions' domain represents the domain at which legal and policy changes, once achieved and implemented, can both support and create population-wide social changes. A key feature of this theory of change (ToC) model is its assertion that intervention in each of these three domains creates a value-added beyond what could be achieved by working only in one or two domains. In other words, it asserts that changes towards gender equality in each domain should and can work together or synergise to amplify and strengthen the broader environment for gender equality. Evidence and communications lie at the heart of the programme's ToC, foreseeing evidence-based interventions that draw upon innovative communications approaches across the three domains.

To promote change in the 'Self' domain, V4C encourages young women and men, as well as key influencers such as religious and traditional leaders and media personalities to acquire knowledge and skills about gender equality that catalyses a process of personal transformation. It does through safe spaces, in person and online, as well as tailored training events to encourage participants to reflect on gender norms and their effects, and to encourage individuals to take action by making changes in their own lives, and helping others to change.

To promote change in the 'Society' domain, V4C has taken forward 'Purple' – an engaging communications brand aimed at young people in the four target states. The campaign is intended to catalyse change in social norms at the state level by marketing new norms to encourage individuals and groups

9 See for example: Heise, L. (1998) 'Violence Against Women, An Integrated, Ecological Framework'. Violence Against Women, 4(4), 2622–90; What are the Social Ecological Model (SEM), Communication for Development (C4D)? Module 1, UNICEF C4D, New York www.unicef.org/cbsc/files/Module_1_SEM-C4D.docx; and Sallis and Owen (2002), cited in Suruchi Sood, Drexel Desk Review

to be 'positive deviants' in the gender attitudes and behaviours they adopt and advocate to others. The campaign has sought to promote co-ordinated messaging across multiple mass media channels. The Purple brand, which symbolises a commitment to gender equality is used to unite this diverse package of communications products which includes the Purple Tinz radio series, gender focused episodes of the Nigerian television series SuperStory, the iampurple.ng website and Purple Facebook page, Twitter and Instagram streams. By uniting the communications products this provides a sense of society-wide support for the norms being promoted.

Finally, to promote change in the 'Institutions' domain, V4C has advocated for the passage of legislation at federal and state levels to promote gender equality and protect women and girls from violence, has supported greater attention to gender concerns in government planning and budgeting processes, and has supported women and girls' leadership and political participation in electoral campaigns. In the latter stages of the programme, this work has given rise to women forming alliances, mobilising, as well as increasing the visibility of women leaders.

The ToC foresees the synergy between change processes in the 'Self' and 'Society' domains as central to achieving behaviour change at scale. Individuals who are involved in personal transformation in the domain of Self are expected to take part in diffusing more positive gender equality attitudes and behaviours to others within their reference groups and influencing them to change in similar ways. In other words, those who are personally transformed also play a role in the Society domain change process as influencers and role models. Conversely, the Purple campaign in the Society domain is expected to make individuals targeted through the Self domain aware that they are part of a wider social change process, which is assumed to give them confidence to act on their new knowledge and attitudes. Those within their reference groups are similarly affected, with the branded communications campaign enabling them to understand the new attitudes and behaviours expressed by 'directly transformed' individuals as part of a wider on-going change process, which they too can be part of.

Synergies between Self and Institutions domains, and Society and Institutions domains, are also present but the slow timeline for change in the Institutions domain is recognised as a potential inhibitor. Knowledge about the attention given to gender equality issues by government, Houses of Assembly and political parties can further galvanise the confidence of 'directly transformed' individuals' to role model new behaviours and encourages others in society to do likewise. It also highlights potential opportunities for women's leadership, presenting young women with a different perspective on future aspirations. With time, progress in the enforcement of legislation could provide a strong driver for social norm change but this is beyond the timeframe of the current five-year V4C programme.

Figure 1: V4C Theory of Change

1.2 This Report

This report presents findings from the APSN survey, which measured changes in attitudes and behaviours amongst young people aged 16-25 years in four target States over the period 2014-2017. After this overview of the V4C programme, it introduces, in section 2, the APSN, its design, methodology and limitations. Sections 3 and 4 of the report present the main findings from the survey. Section 3 starts first by discussing the overall changes in young people's attitudes and behaviours in the target states over the 2014-2017 period, without regard to the contribution made by V4C. Having reviewed the state-wide reach of Purple, V4C's communications brand, it then analyses the changes that can be directly associated with V4C. Section 4 goes on to present findings from the supplemental APSN which focuses on changes in attitudes and behaviours amongst young people who directly participated in some of V4C's intensive interventions.[10] Lastly, section 5 draws together the analysis, providing some overarching conclusions.

Throughout our analysis, we present gender disaggregated data where significant differences were found for men and women. We similarly highlight state-specific data where it differs from the four state average.

10 Comprising Purple Academy, Physical Safe Spaces, Gender Hub, Brand Ambassadors, Mens Network, and Listening Panels.

Section 2:
Measuring Attitudes and Behaviour Change

This section presents V4C's approach to measuring social norms change through the APSN survey.

It introduces the social norms framework, which has informed the design of the survey, and describes how we used the framework to structure survey questions. We then go on to describe the APSN survey methodology, including sampling, and the 'difference-in-differences' design which allows us to identify V4C's effects in the absence of a clean control group. The section ends with a discussion of the limitations to the methodology.

2.1 Overall Approach

Social norms theory has informed V4C's approach to measuring attitudes and behaviour change through the APSN, just as it has informed V4C's ToC and implementation approach. This means that, in addition to measuring individual's attitudes and behaviours, we also measure what individuals perceive others do, as well as what they believe others expect of them, in an attempt to understand social pressures.

The APSN survey design has been informed by the six-cell matrix developed by Mackie et al[11] (Figure 2). This matrix neatly captures the three critical variables for tracking social norms change - what I do, what others do, and what others think I do (personal attitude and behaviour change, as well as first and second order expectations) - but also goes further, to capture what I think I/others should do (normative expectations). The former provides insights into the current situation, whilst the latter provides insights into how attitudes and behaviours might change in future.

The APSN survey has been structured around the six-cell matrix with a set of four-six questions for each of the cells A-F, and for each of the three behavioural areas under examination. Figure 2 provides example questions drawn from the APSN survey to illustrate how the six-cell matrix has informed its structure. The letter against each question points to the matrix cell which the question relates to. So, taking the questions on violence against girls and women as an example, Question A interrogates what I do/what is done to me (empirical self), Question B interrogates what others do (empirical first order), and so on.

11 Mackie, G. Moneti, F., Shakya, H. and Denny, E (2015) 'What are social norms? How are they measured?' Working Paper, New York: UNICEF and San Diego: Center on Global Justice, University of California

12 Whilst the six-cell matrix provides consistency in approach, in practice, there are four cells which form the core of the enquiry: A, B, D/E and F. One question for each of the six cells may not always be necessary, and may, in some cases, not always be logical. For example, one would expect responses for cells D and E to be the same - that is approval of a behaviour should be fairly consistent, regardless of whether the actor is the respondent her/himself or another person) – and can be covered through one question. Questions relating to cell C are often difficult to communicate and may only make sense if the behaviour is a private one, happening behind closed doors, as in the case of domestic violence.

	What Self Believes about		
	Self	**Others - 1st Order**	**Others - 2nd Order**
Empirical Expectations	**A:** What I do	**B:** What others do	**C:** What others think I do
Normative Expectations	**D:** What I think I should do	**E:** What I think others should do	**F:** What others think I should do

Figure 2: Six-cell matrix for the measurement of social norm change

ASPN Survey questions, structured around the six-cell matrix

VAWG

A: How often in the last month did a man hit or slap you?

OR How often in the last month did you hit or slap a woman you know?

B: In other families around here, how often does a man hit or slap a woman in a month?

C: How much would [people who matter to the respondent] think that a man in your family hits or slaps a woman?

D+E: Sometimes a husband is annoyed or angered by the things his wife does. Would you approve or disapprove if a husband hit or beat his wife in the following situations? (Goes out without telling him; Neglects the children; Argues with him; Refuses to have sex; Doesn't cook food properly)

F: How much would [people who matter to the respondent] approve or disapprove if a man in your family hit or slapped a woman?

For each of these questions, the respondent could answer Often, Sometimes, Rarely or Never

Women's Role in Decision-Making

A: What's the reality now? How much is the woman's opinion considered in your family?

B: In general, how much is a woman's opinion considered in families around here when they make decisions?

D: In your view, how much should a woman's opinion ideally be considered in your family?

E: In general, how much should a woman's opinion be considered in other families around here when they make decisions?

F: In your view, how much would [people whose opinion matters to the respondent] think a women's opinion should be considered in your family?

For each of these questions, the respondent could answer A lot, Some, A little, or None.

Women's Leadership

A: Would you ever like to be selected for leadership of an organisation (Community Development Association (CDA), school, professional/trade association, etc.)? [no/probably not/probably yes/yes]

B: Around here, how often are women selected for leadership of an organisation (CDA, school, professional/trade association, etc.)? [never/rarely/sometimes/often]

E: Would you approve or disapprove if a woman around here was selected for leadership of political organisation (CDA, school, professional/trade association, etc.)? [strongly approve/moderately approve/neither approved nor disapprove /moderately disapprove/strongly disapprove]

F: In your opinion, how many people around here approve of women being selected for the leadership of a local organisation (CDA, school, professional/trade association, etc.)? [very few or none/less than half/about half/more than half/almost everyone]

For each of these questions, the respondent was given the response options listed above.

2.2 APSN Survey Methodology

The APSN survey's main objective was to track changes in gender related attitudes and behaviours among a representative sample of Nigerian youth in the four target states during V4C's four years of implementation. It did this by surveying a representative sample of 4,799 young people aged 16-25 in the target states. After the baseline study in 2014, respondents were re-contacted in 2015 (in Enugu and Kaduna States only), in 2016 (in Enugu, Kaduna, and Kano States), and in 2017 (in all four states).[13] By 2017, the sample had aged to represent young adults ages 19-28. Re-contact rate between 2014 and 2017 was approximately 81 per cent.

Social norms theory predicts that behaviours and attitudes will cluster locally, necessitating larger sample sizes to identify, with confidence, programme effects. Appendix B provides a discussion of sample size and the sampling methodology used given the high expected intra-cluster correlations.

The sample universe consisted of 16 to 25 year old females and males in the local government areas (LGAs) within the four programme implementation states (Enugu, Kaduna, Kano, and Lagos). To draw the sample, we randomly selected census enumeration areas as defined by the Nigerian census and, stratifying by state in gender, randomly selected respondents within these clusters. As it was not possible to determine the exact radio catchment area for the relevant stations in each state, enumeration areas were randomly selected regardless of potential radio exposure under the assumption that radio coverage, while not complete, was still fairly homogenous across the state. The sample frame included all residences, but excluded post-secondary institutional dormitories. Data from the last Nigerian census in 2006 enabled us to generate survey weights and calculate population-representative results.

To minimise the risks that we would under sample low income or marginalised populations, we generated household listings for each enumeration area and randomly selected from these lists. The household listing identified 52,500 individuals from the selected enumeration areas. It also enabled the project to select replacement respondents as the sample matures and attrition occurs.

In total, 4,798 respondents completed the original survey representing 2,401 households for females across the four states, and 2,397 households for males. The average response rate was 97.5 per cent (Table 1). Three years later, our recontact rate across the four target states was 81 per cent. There is some risk that attrition is non-random, and that the endline survey may underrepresent more mobile, marginalised youth that are hard to track over time. However, the recontact rate is quite high in the context of other similar surveys, especially given the long time lag between baseline and endline. This high recontact rate makes us more confident that we are capturing meaningful data on how Nigerian young people as a whole have changed over time.

13 The scope of the survey was limited to two and three states in 2015 and 2016 respectively for budgetary reasons.

Table 1. Individual response rates by residence and sex

Individual-level response rate	ENUGU		KADUNA		KANO		LAGOS	
	Female	Male	Female	Male	Female	Male	Female	Male
Completed individual survey	603	590	597	608	601	603	600	597
Household refusal	11	8	12	9	15	6	10	8
Selected respondent refusal	5	4	9	5	7	5	5	5
Total	619	602	618	622	623	614	615	610
Individual response rate	97%	98%	97%	98%	96%	98%	98%	98%

In addition to our main APSN panel survey, we conducted a parallel supplemental survey in 2016 and 2017. The goal of this supplemental survey was to assess the impact of more intensive, targeted components of V4C, which may be represented by small numbers of the randomly selected respondents in the main panel study. We used a sample of approximately 2000 respondents in our supplemental survey based on young people's participation in one of the V4C interventions (see panel below).

V4C interventions

- Physical Safe Spaces: personal transformation courses, conducted in selected institutions of higher education with groups of young men and women.
- Purple Academy: an online space for young people to reflect on gender, relationships, VAWG, financial management
- www.iampurple.ng (mobile site): an online space with chat, quizzes, news items and chance for sharing targeting feature phone users
- Gender Hub: an online knowledge hub for practitioners, academics, policy makers providing e learning opportunities as well as vast range of knowledge products
- Brand Ambassadors: young people in Post Secondary institutions responsible for promoting the Purple brand to other students
- Mens' Networks: existing groups of men which associate around religion, football, professional bodies and now incorporate gender equality. E.g. Catholic Men's Association
- Listening Panels: randomly selected group in target areas that collectively listen to Purple Tinz radio show and report back

Over 80 per cent of the supplemental survey respondents were Physical Safe Spaces participants, where respondents were selected at random from a full participation list. For programming that reached a smaller number of people (Gender Hub, Brand Ambassadors, Mens' Networks, Listening Panels), all participants were asked to participate in the survey.

The supplemental APSN survey is also panel in nature, in that the same 2016 respondents were recontacted in 2017. Lagos was not surveyed during the 2016 wave, so only 2017 data exists for that state. Because we do not have 2014 baseline data for these respondents, survey questions were added to both the supplemental and main panel survey that i) were comparable between the two surveys and ii) asked for respondents' self-reported levels of change over time. While not as ideal for causal inference as a true baseline, the comparison of self-reported change between the supplemental and main panel respondents offers insight into how the former group may have changed more due to more intensive exposure.

2.3 Understanding V4C programme effects

Due to state-wide scale of V4C's implementation, it was not possible for the survey to have a control group. Instead, we have used a 'difference in differences' design to understand the effects V4C is having on young people, comparing the changes amongst those who recognise Purple programming and those who do not. To determine the change in attitudes and behaviours of respondents we subtract responses from 2017 (the endline survey) from the same person's response to the same question in the 2014 baseline. If no change occurred in the person's attitude or behaviour, the value of change will be zero. This tells us the level of change that has occurred amongst young people during the life of the programme. We then compare how much change in personal attitude or behaviour occurred for people who report recogising Purple compared to those who did not. If V4C has had an effect, we would expect the amount of change measured for 'Purple' young people to be greater (and more positive) than for other young people. Findings presented here are the results of regression analyses, which control for other characteristics such as age, education level, and economic well-being.

Importantly, respondents were only told that the survey would ask about men and women's wellbeing, not that the survey was related to Purple programming. Recognition of Purple initiatives was measured at the end of the APSN questionnaire, and a robust set of questions asking about a long list of V4C programming types was only asked to the full sample at endline (not at baseline, as many of the forms of outreach had not yet been developed). These steps increase our confidence that any changes which we find associated with V4C programmes are due to actual changes in respondents' attitudes and practices, and are not due to any desirability bias where respondents feel pressured to provide a 'right answer'.

2.4 Limitations

There are two main limitations to the APSN study of V4C's effect on changing young people's attitudes and behaviours. First, the programme design prevented us from having a randomised control group, which has meant we have had to use other approaches to determine V4C programme effects. Second, that in some cases reported recognition of Purple does not necessarily reflect exposure to V4C messages, presenting a challenging for understanding V4C's likely effects. We discuss these two limitations in more detail below and how we have managed them.

2.4.1 Understanding V4C effects

To create an impression of society's changing gender norms, V4C sought to saturate the media environment with its messaging. This population-wide approach was not conducive to having a randomised control group to determine programme impact. Instead, we use a 'difference-in-differences' design and include control variables such as poverty level, age, and education to assess the degree to which V4C may have changed attitudes and behaviours. The main assumption that is made when using a difference-in-differences design is that both exposed and unexposed groups would respond the same way to programming, if exposed. Whilst we cannot be absolutely certain that systematic differences in exposure do not also affect receptiveness to V4C's messaging, we have made every best effort from an analytical perspective to control for other factors that may be driving these changes instead (and rule out these alternatives). Where we have reason to believe that omitted variables may violate this key assumption about responsiveness to V4C messaging, we discuss this explicitly in the text.

2.4.2 Identifying APSN survey respondents with adequate exposure to V4C's messaging

A difference-in-differences design hinges on the ability to identify respondents who have been exposed to V4C's messaging, and those who have not, so we can compare changes in attitudes and behaviours between these two groups. For radio, Purple brand, billboards and Physical Safe Spaces, the nature of the content is such that we can assume recognition represents consumption of that medium's V4C messaging. (Recognition of Purple Tinz hinges on having listened to the radio show; Purple brand recognition represents consumption of visual content; Physical Safe Spaces represents programme participation). However, analysis of APSN data for people reporting Purple recognition through TV (SuperStory), the website iampurple.ng and Purple Academy suggests that reported recognition may not, in many cases, reflect exposure to V4C messaging. This presents problems when we seek to use this data to understand the effect of V4C programming.

We are concerned that respondents who report recognising Purple through TV (SuperStory) may in fact be reporting recognition of the SuperStory series itself and not necessarily the V4C-specific seasons. SuperStory programming was only aired for one season, ending in 2016. Despite specific language and imagery in the survey referring to the V4C-specific seasons, it is unclear whether respondents' recognition actually reflects familiarity with these seasons. Furthermore, because V4C decided to discontinue SuperStory after one season, we did not want to evaluate it in the same way as content that continued throughout the life of V4C.

We believe that the APSN survey is picking up superficial Purple recognition through Purple Academy, V4C's online gender awareness course. The APSN survey found an estimated 159,000 young people (5.8 per cent) recognised Purple Academy however, programme monitoring data shows that only 13,200 young people have completed one module of the course in the target age range and state. As V4C advertised Purple Academy widely on TV, radio

and online it is possible that this may be driving the levels of Purple Academy recognition reported.

We are concerned that data for people recognising Purple through the iampurple.ng website may be prone to omitted variable bias. Respondents were asked whether they recognised iampurple.ng or the image of the site's landing page but were not asked how much time they spent on the site, or how much time they spend online more broadly. This is an issue because, unlike visual or audio content where recognition is likely to more closely mirror engagement with meaningful content, the depth of website engagement can vary widely. We know that there are many other online spaces where gender is discussed in unmoderated – and often negative – ways. Therefore, any changes in attitudes and behaviours that we observe to be correlated with exposure to Purple content (but without confirmation of engagement in Purple messaging) are not clearly attributable to Purple programming and may be driven by other online content.

In view of the above limitations, we have excluded data for respondents recognising Purple through the TV (SuperStory) and Purple Academy from the analysis in section 3. For Purple Academy we can instead turn to our supplemental APSN survey to understand the interventions effects on young people who have fully engaged with the course (in section 4). In the interests of learning about possible challenges associated with influencing through the online space we do present findings for young people recognising Purple through the iampurple.ng website but with the caveat that any observed relationships may be driven by unobserved factors like broader web use, rather than programme effects.

Section 3:
Attitude and behaviour changes amongst young people in targeted states: population-wide results

This section presents the changes in attitudes and behaviours recorded amongst young people in the four target states in the period 2014-2017.

It starts by first presenting the overall numbers of young people who have improved their gender related attitudes and behaviours, and looks specifically at changes in the three target behavioural areas, women's role in household decision-making, women's leadership and violence against women and girls. It then explores the reach that Purple, V4C's communications brand has achieved, before analysing the changes in young people's attitudes and behaviours that can be directly associated with V4C. In so doing, we consider results for each of the three behavioural areas, as well as a number of other important dimensions, including expectations of others (cell F in the six-cell matrix), contemplation of gender issues and young people's potential to influence others. We end the section with a discussion of some of the challenges V4C has faced in influencing young people through online spaces, and how this has affected results.

3.1 Overall change in young people's attitudes and behaviours

Key findings

Between 2014 and 2017, 2.4 million young people, or 89 per cent of the target population in the focal states, show positive attitude or behaviour changes in at least one of the three key behavioural areas: women's role in decision-making, women in leadership, and violence against women and girls.

APSN endline findings suggest population-wide changes in young people's gender attitudes are occurring. Between 2014 and 2017, 2.4 million young people, or 89 per cent of the target population in the focal states, show positive attitude or behaviour changes in at least one of the three key behavioural areas: women's role in decision-making, women in leadership, and violence against women and girls (VAWG).

Looking at changes by behavioural area, there is a minimum of 1 million young people who have improved their attitude or behaviour in each of the three areas (Figure 3). Unsurprisingly, there is most progress in attitude change, especially in relation to VAWG and women's leadership. There are however also sizeable improvements in behaviours, especially in relation to VAWG. Similar numbers of men and women showed improvements in the area of VAWG, reporting lower incidence of VAWG. About 200,000 more women than men showed increased disapproval of VAWG. The largest difference between number of men and women changing was in Kano (with women changing at higher rates), while the smallest difference by gender was in Kaduna.

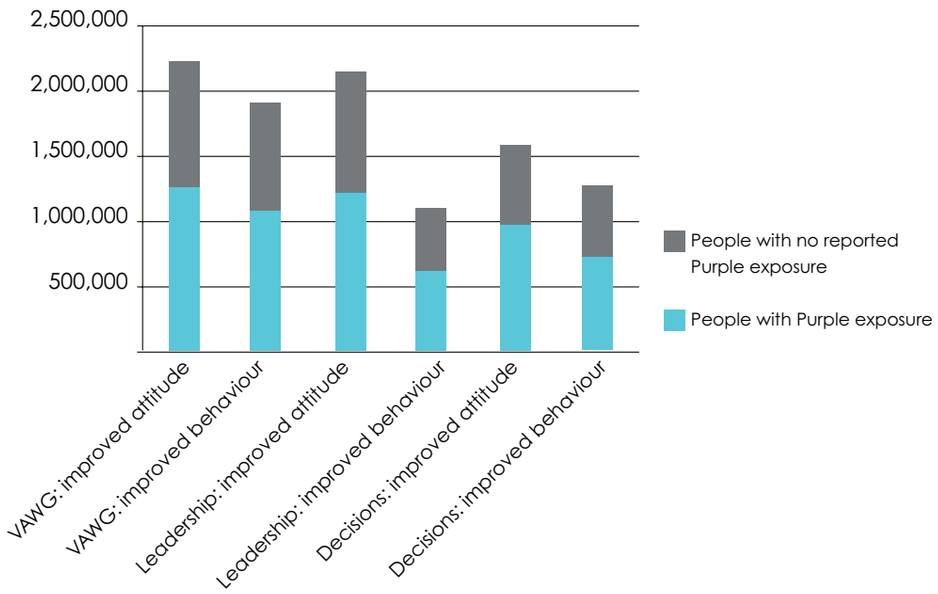


Figure 3: Estimated total number of Nigerian young people in target states showing positive change in target attitudes and behaviours, by reported Purple exposure

3.2 V4C Programme Reach

Key findings

- By August 2017, 47.7 per cent of young people in the target states recognised at least one form of Purple programming measured in this survey, representing 1.14 million young people.
- On average, Purple reached young people who were slightly more educated and less poor than each state's average demographics. That said, Purple programming appears to be equally effective across the wealth groups.
- By the end of the programme, 71.9 per cent of young people across the four states who recognised Purple correctly identified the logo's meaning.

To catalyse large-scale attitude and behaviour change amongst young people in the target states as intended, Purple needed to reach and resonate with large numbers of the 3 million young people living there. To do this, V4C combined personal transformation interventions with a multi-media branded communications campaign spanning, radio, TV, billboards, the web and social media. The Purple brand unified this range of interventions and was intended to become known for symbolising a commitment to gender equality.

Following the end of V4C programming, in August 2017, 47.7 per cent of young people in the target states recognised at least one form of Purple programming measured in this survey (radio, billboards, Purple logo, Physical Safe Spaces after school programme), representing 1.14 million young people.[14] Of the different types of programming, radio had the widest recognition (Table 2). Billboards showed even stronger recognition, but only in the three states where they were posted on an ongoing basis.[15]

14 This number does not cover those reached through non branded strategies, for example, outreach among religious and traditional leaders, radio programmes influenced by Purple and V4C but not branded as such, and the Being a Man in Nigeria Landmark Research Report.

15 Billboards were removed from Kano state for a period of time in February 2017, when a politician went on radio to voice concerns that the 50-50 campaign message was promoting 50-50 inheritance rights, which was seen to be anti-Islamic.

Table 2: Purple intervention	Percentage of young people in target states who recognise Purple through this medium
Billboard	57.1% (excluding Kano)
Radio	31.6%
Purple brand/logo	29.5%
Physical Safe Spaces after school programme (know someone who attended)	4.2%
Physical Safe Spaces after school programme (attended)	1.3%

Table 2. Percentage of young people in target states recognising Purple, by Purple medium

The proportion of young people in target states recognising Purple increases to 61 per cent or 1.72 million young people if one also includes those who report recognising Purple through the TV show SuperStory, online (web) presence including the iampurple.ng website and the Purple Academy online learning modules. However, as explained in section 2, we have chosen to exclude these from our analysis because we have concluded that many of these people are likely to have only a superficial recognition of Purple.

On average, Purple reached young people who were slightly more educated and less poor than each state's average demographics. Radio was the medium that was most successful in reaching poorer, less educated young people. That said, programme effects appear to be similar regardless of one's socioeconomic status, with Purple programming being equally effective across the wealth groups. Appendix A provides statistics on V4C's audience compared to general populations, disaggregated by state and gender.

Turning to the Purple brand itself, the APSN found that Purple branding has been successful in communicating its message: overall, 71.9 per cent of young people across the four states who recognised Purple correctly identified the logo's meaning. For those who recognised Purple, the percent of respondents who successfully identified Purple's meaning (in an open-ended question) was 65 per cent in Kano, 73 per cent in Kaduna, and 95 per cent in Enugu. In Lagos, correct recognition was lower (47 per cent), perhaps due to a more saturated media market. Overall, the high rates of familiarity with Purple's meaning suggests that the campaign not only promoted logo recognition but also at least a basic understanding of what the brand stands for. Men in particular appear to have responded positively to the 50/50 campaign messaging.

3.3 Population-wide change associated with V4C Programming

In this section, we move from looking at population-wide change to those changes in attitude and behaviour change that are associated with V4C recognition. This correlation is an important one to make but it is likely to underestimate the contribution V4C is making to young people's attitude and behaviour change. V4C's ToC anticipates young people and key influencers diffusing new gender attitudes and behaviours and as we show later (see Section 4.1), we have strong evidence that this diffusion is occurring. In many cases, this diffusion is unlikely to be Purple branded and therefore will go undetected by the APSN. Furthermore, our analysis compares the difference in change between people who report recognising Purple and those who do not estimate V4C's effect. But, if those who report not recognising Purple, have in fact been indirectly influenced and changed by Purple, then our analysis will underestimate the level of change associated with V4C.

In the findings presented here, Purple programme recognition is defined as recognising radio programming (Purple Tinz), billboards, the Purple logo, or Physical Safe Spaces. People familiar with these programmes will be referred to as 'Purple' people. Web exposure is also reported, but in a separate column (and not included in the 'Any V4C' analysis), as we are unable to verify whether changes in this population are due to V4C web content.

Results presented here primarily consider how respondents' answers to specific questions changed between 2014 and 2017, allowing for a more objective assessment of change over time (compared to self-reported change over time). Only in a few circumstances were questions added retroactively and therefore rely on self-reported perceptions of change rather than actual measured change over the course of the programme.

Results described are also summarised in supporting tables. Results in each cell of the table are from a separate regression, each showing the magnitude and significance of programme exposure specifically for that demographic group.[16] When reading the tables, it will be helpful to look at two places first:

- Top two rows which show overall effects across the four target states
- First column (on left) which shows overall V4C impact (from any exposure), by state/gender group

16 Physical Safe Spaces is only assessed at the aggregate level, given the small number of people in the survey who were familiar with the program. The numbers become too small to be credible when disaggregated by state and gender.

Table 3	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces
All states					
Women					
Men					
Enugu					
Women					
Men					
Kaduna					
Women					
Men					
Kano					
Women					
Men					
Lagos					
Women					
Men					

Table 3. Example of table cells showing results by state, gender and intervention type

Asterisks following the results indicate the statistical significance of the findings, or rather the confidence that there is a real association between V4C and change over time: * = 90 per cent confidence; ** = 95 per cent confidence; *** = 99 per cent confidence.

Cells are colored by the size and direction of the effect. Stronger positive programme effects are shaded in darker shades of **blue**. Stronger negative programme effects are shaded in darker shades of **orange**. Cells with no colour and only a '--'indicate null findings. This does not necessarily mean that there was no programmatic effect, but rather that the results were not statistically significant and thus we cannot say with confidence that there is a real correlation between programming and the outcome measures. The value in each cell presents the amount of change our regression models show is correlated with programme recognition, controlling for one's starting attitude or behaviour level. The total scale of change possibly varies somewhat by question but usually ranges from -4 to +4, although the amount of change possible for an average individual is usually much smaller and is limited by their starting value for the attitude/practice.

Key findings

- Any Purple exposure correlates with larger positive change in how much people say that a woman's opinion matters in their own households, compared to those not exposed to Purple
- Young men and women exposed to Purple are more supportive of women's role in household decision-making.

3.3.1 Changes in young people's attitudes and behaviours towards women's household decision-making[17]

When we consider programme effects across the four states, we see that V4C is associated with positive changes in personal attitudes and practices, as well as expectations of others, in the area of decision-making. Any Purple exposure correlates with larger positive change in how much people say that a woman's opinion matters in their own households, and this positive relationship between Purple programming and women's decision-making holds for both male and female respondents. This significant programme effect across the four states appears to be driven in particular by strong results in Enugu, where all major types of Purple programming (radio, billboards, Purple brand) are correlated with positive change for both men and women.

Overall, radio shows the strongest link to increased participation of women in household decisions, with positive correlations found for both men and women in Enugu, men and women in Kano, and women in Lagos.

17 For this topic, respondents were asked a set of questions about the role women should and do play when making decisions about small household purchases, large household purchases, how many children to have, when to have sex, etc. Support for women's role in making decisions was calculated by taking the average support across these different decision domains.

Table 4	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women	**+0.06****	+0.17***	+0.08**		--		+0.13**
Men	**+0.08****	+0.11***	+0.10***	+0.06*	--		+0.13**
Enugu							
Women	+0.11**	+0.09*	+0.15***	+0.10**			+0.14**
Men	+0.21***	+0.15***	+0.22***	+0.19***			
Kaduna							
Women	--	--	--	--			
Men	--	--	--	--			
Kano							
Women	--	+0.41***	NA	--			+0.27*
Men	--	+0.14**	NA	--			+0.40***
Lagos							
Women	--	+0.13**	--	--			
Men	--	--	--	--			

Table 4. Decision-making: women's role in my household

Measures of attitude change give an indication of the possibility of behaviour change in the future, since attitude change commonly precedes behaviour change. In Kano State, for example, women who recognise Purple show larger positive changes in their approval of women making more household decisions but a similar effect is not seen for improvements in women's actual role in household decision-making. This may just be a matter of time. Kano is culturally conservative and so increasing women's actual role in decision-making may take longer to bring about. In this context, the shifts in women's attitudes towards women's decision-making are encouraging.

Overall, across the four states we see an average positive relationship between Purple programming and increased approval by both men and women of women's role in decision-making.

Billboards show positive correlation with attitude change among men, driven by strong results in Lagos. The Purple brand is positively correlated with attitude change among women, driven by strong results in Kano.

The one exception to this positive trend is in website exposure, where there are positive changes seen for male web users in Kano, but negative changes seen among all web users in Enugu. The overall picture for web users, though, is that people who report recognising iampurple.ng are less supportive of women making household decisions compared to other young people. However, as we explain in section 2.4, these findings should be treated with caution and could be driven by other online content rather than Purple.

Table 5	Any V4C	Radio	Billboard	Purple brand	Physical Spaces		Website
All states							
Women	**+0.09*** **	--	--	+0.06*	--		-0.24***
Men	**+0.08** **	--	+0.07*	--	--		-0.17***
Enugu							
Women	+0.12**	--	--	--			-0.50***
Men	--	--	--	--			-0.46***
Kaduna							
Women	--	--	--	--			--
Men	--	--	--	--			--
Kano							
Women	+0.19***	+0.30***	NA	+0.19***			--
Men	--	--	NA	--			+0.28**
Lagos							
Women		--	--	--			--
Men	+0.17***	--	+0.17***	--			--

Table 5. Decision-making: personal approval of women making household decisions

3.3.2 Changes in young people's attitudes and behaviours towards women's leadership[18]

Key findings

- Overall, men (but not women) exposed to Purple programming show a larger increase over the course of the programme in the number of women they see in leadership positions.
- Purple exposure correlates with more positive changes in the approval of women in leadership positions, a result which holds for both men and women.

Overall, men (but not women) exposed to Purple programming show a larger increase over the course of the programme in the number of women they see in leadership positions. It is unclear, given the study design, whether this increase reflects an actual increase in the number of women in leadership positions, or whether the result reflects men's increased awareness about the existing number of women in leadership. Regardless, this effect can be viewed as a positive outcome.

Results are the strongest in Lagos, where both Purple men and women show larger increases in how many women they see in leadership. This result appears to be driven especially by exposure to billboards. In the North, radio programming correlates with higher visibility of women in leadership positions, as reported by women (no relationship is observed for men here). Whilst the Purple brand correlates in Kano with increased visibility of women in leadership, as reported by men.

18 The APSN survey focuses on attitudes and perceptions of women standing for local leadership positions, both elected and appointed. We focused on local leadership because this is the space where the largest number of women would have the opportunity to participate, and change would be expected to occur most quickly there, especially given the infrequency of elections at the state or national level.

Table 6	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women	--	--	--	--	--		--
Men	**+0.10***	--	--	--	--		--
Enugu							
Women	--	-0.27**	--	-0.26*			--
Men	--	-0.27**	--	--			-0.52***
Kaduna							
Women	--	+0.23**	--	--			--
Men	--	--	--	--			+0.32**
Kano							
Women	--	+0.25**	NA	--			--
Men	+0.25**	--	NA	+0.25**			--
Lagos							
Women	+0.41***	--	+0.42***	--			--
Men	+0.35***	--	+0.34***	--			--

Table 6. Leadership: perception of other women's behaviour ('Do I see women standing for leadership?')

Enugu appears to be the exception here – while there are no overall programme effects, radio and the Purple brand are associated with less positive changes in how much people report that women stand for leadership positions. This may be because Purple people in Enugu were more aware of women's leadership roles at baseline, and therefore demonstrated less change in awareness over time. Purple programming may also have emphasised ongoing inequalities by gender, thereby raising awareness not of the number of women in leadership, but rather the dearth of women in leadership.

For this reason, it is important to consider how attitudes about women's leadership are changing as they provide a predictor of potential future change in behaviours. When we consider how personal approval of women in local leadership has changed, and whether these changes are associated with Purple exposure, we see much stronger and more significant results. This suggests that attitudes are changing in positive ways, with connections to Purple initiatives, but that further time is required for these changes in attitudes to translate into actual changes in how many women stand for – and obtain – leadership positions.

Overall, Purple exposure correlates with more positive changes in the approval of women in leadership positions, a result which holds for both men and women. This overall effect appears to be driven by particularly strong increases in leadership approval in the southern states (both Enugu and Lagos) – again, an effect that holds for both Purple men and women. Only in Kaduna do we see that Purple programming correlates with less positive attitude change (for women respondents only). This effect appears driven by billboard exposure specifically.

In general, across the four states, radio exposure and Purple brand exposure both correspond with positive changes in approval for women as leaders, and this relationship holds for both male and female respondents. Billboard exposure also correlates with increased approval specifically among men.

Table 7	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women	**+0.11***	+0.18***	--	+0.21***	--		-0.18*
Men	**+0.24*****	+0.16**	+0.19***	+0.34***	--		--
Enugu							
Women	+0.28**			+0.28***			--
Men	+0.33**	+0.31***	+0.37***	+0.43***			--
Kaduna							
Women	-0.21*		-0.28**				--
Men		+0.27***		+0.34***			--
Kano							
Women		+0.40***					--
Men							--
Lagos							
Women	+0.34***		+0.23**	+0.43***			--
Men	+0.34***		+0.25**	+0.36***			--

Table 7. Leadership: personal approval of women as leaders

3.3.3 Changes in young people's attitudes and behaviours towards physical violence against women and girls

Key findings

- There is no average correlation between most Purple exposure and changes in household VAWG as reported by both men and women.
- There is no significant relationship between young people's approval for VAWG and exposure to Purple programming.
- Discussions of VAWG on TV and radio appear to reduce young people's tolerance of VAWG whilst depictions of VAWG on TV and the radio appear to make young people more tolerant of VAWG.

The APSN findings for V4C's contribution to changing attitudes towards VAWG and its perpetration are mixed, making it difficult to pick out clear trajectories.[19] Overall, we find that there is no average correlation between most Purple exposure and changes in household VAWG as reported by both men and women. The one exception is web exposure, driven by increases in reported VAWG amongst web users in Enugu. However, as explained in section 3.3.9, it is possible that this is due to exposure to unmoderated online content, rather than iampurple.ng content.

By state, Purple programming in Enugu correlates with a decrease in reported VAWG among both men and women. In Kaduna and Kano States, Purple programming correlates with increased reported VAWG among men but interestingly, this effect is not observed among women. This suggests that the actual prevalence of VAWG is not increasing, rather Purple programming may be making men more aware of what constitutes violence and as a result, they report a greater incidence than previously. However, it is also possible that the increase in messaging and visibility around VAWG's as a result of V4C may have unintentionally given the impression that it is more common and accepted by society instead of simply educating young people about the continued problem of VAWG and the need to address it. Further research would be needed to uncover the most plausible explanation.

19 For more in-depth discussion of V4C's results on changing attitudes towards and perpetration of VAWG, please refer to 'Lessons from Nigeria on preventing violence towards women and girls through social norm change', V4C Learning Paper, October 2017 www.v4c-nigeria.com/wp-content/uploads/2014/09/1624-V4C-LP-VAWG-WEB.pdf

Measuring violence against women and girls

In this area, we measure individuals' behaviours differently for men and women. We ask men how often they have hit a woman in their household in the last month whilst we ask women how often they have been hit by a man in their household in the last month. Personal approval of VAWG is measured using a four-point scale (never, rarely, sometimes and often) for how much a man is justified in hitting a woman in each of the following five scenarios: 1) she goes out without telling him, 2) she neglects the children, 3) she argues with him, 4) she refuses to have sex with him, and/or 5) she doesn't cook food properly. We then average out responses for the five questions to obtain an overall VAWG approval score.

Wording of the VAWG scenarios was drawn from language used in the 2013 Nigeria Demographic and Health survey (DHS). However, the four-point frequency scale which the APSN uses differs from the DHS, which offers strictly binary yes/no response choices to VAWG questions. The frequency of VAWG measured in V4C's study is significantly higher than that reported in the 2013 Nigeria DHS data, and it appears that inclusion of the 'rarely' option captures greater prevalence of the behaviour. Recoding of the data such that 'rarely' was equated with an absence of the behaviour results in a decline in reported rates of VAWG by up to 30 per cent.

The importance of a 'rarely' option in capturing on-going VAWG suggests two insights: firstly, it is possible that many respondents, both men and women, think about occasional VAWG as being a different phenomenon from more frequent VAWG. It appears that occasional hitting of women in the household is considered acceptable, rather than respondents holding a zero-tolerance attitude toward VAWG. Additionally, then, this data suggests that the DHS data may be underreporting the percentage of women affected by domestic violence, since respondents dismiss infrequent behaviours as not being memorable or of sufficient magnitude to qualify as a 'yes' response when asked if the behaviour occurs.

Table 8	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women	--	--	--	--	--		+0.11**
Men	--	+0.08**	--	--	--		+0.17***
Enugu							
Women	-0.20***	--	-0.23***	-0.15**			+0.21***
Men	-0.20**	--	-0.21***	-0.24***			+0.30***
Kaduna							
Women	--	+0.18**	--	--			--
Men	+0.12*	+0.14**	+0.12*	--			--
Kano							
Women	--	-0.19***	NA	--			--
Men	+0.10*	+0.12***	NA	+0.10*			+0.21*
Lagos							
Women	--	--	--	--			--
Men	--	-0.19***	--	--			--

Table 8. VAWG: personal behaviour (I am/do hit ['rarely' or more often])

If VAWG prevalence rates were increasing, it would be reasonable to expect a corresponding increase in support for VAWG, particularly among men. Our APSN results (Table 9) show that this, for the most part, does not appear to be the case. Looking across the four states, there is no significant relationship between approval for VAWG and exposure to Purple programming, except again for website exposure (which again is driven by results in Enugu). There are also few effects by state or by program type, with the exception of: Increased disapproval for VAWG associated with Purple women who participated in Physical Safe Spaces (across the four states), as well as Purple women listening to radio programming in Kano; increased approval for VAWG associated with radio programming for women in Enugu and Kaduna, and with Purple branding for men in Kano. Given this, it is unlikely that Purple programming is a main driver in slowing attitude and behaviour change relating to VAWG.

Table 9	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women					-0.16*		+0.25***
Men							+0.18***
Enugu							
Women		+0.18**					+0.55***
Men							+0.35***
Kaduna							
Women		+0.22**					
Men							
Kano							
Women		-0.22***	NA				
Men	+0.06*		NA	+0.18*			
Lagos							
Women							-0.23***
Men							

Table 9. VAWG: personal approval (Women should be hit [in one of a set of five circumstances])

While we do not analyse the correlation between Purple TV programming and changes in VAWG attitudes or behaviours, there is other data in the survey that helps understand the effect that different types of TV coverage of VAWG may have on changes over time. The survey asked people how often overall they hear VAWG talked about on TV and how often they see VAWG portrayed on TV. They were also asked how much they had seen the rates of this type of VAWG coverage on TV change over time. APSN data for all young people (regardless of known Purple exposure) finds that seeing discussions of VAWG on TV correspond with very different outcomes compared to seeing TV scenes that actually portray VAWG. The more often that young people say they currently hear "talk about physical violence against women on TV and on the radio", the more positive change they show in their attitudes toward VAWG (i.e. they become less supportive of VAWG). Conversely, the more people say they see depictions of VAWG on TV and the radio, the more negative change we see on average in their attitudes toward VAWG. This suggests that discussions of or information about VAWG may help decrease acceptance of the practice, but that portrayals of actual VAWG incidents on TV perpetuate permissiveness of the behaviour.

3.3.4 Changes in young people's attitudes and behaviours towards silencing women

Key findings

- For women, there is no average correlation between Purple exposure and women being silenced, or approving of being silenced
- For men, Purple exposure correlates with increased approval and commission of silencing of women.

To learn about subtler forms of VAWG, we asked young women how often they were told to be quiet in their household and men how often they told women in their households to be quiet. We asked both young men and women how acceptable it is to tell a woman to keep quiet.

For both behaviour (what actually happens) and approval of silencing, the APSN found similar results. Overall, Purple shows no correlation with changes for women across the four states. However, for men, Purple correlates with increased approval and commission of silencing over the programme's lifespan. When disaggregating results, two distinct pictures emerge at programming and state levels. The first, for programming type, we observe the following relationships:

- Radio programming (specifically Purple Tinz) correlates with positive outcomes (a decrease in silencing and its approval). Effects are significant across the four states for women's reduced experience of silencing and men's greater disapproval of the practice. Radio correlates with a reduction in silencing and its approval in Enugu and (for men) in Kano, while it has no notable influence in either direction for Kaduna or Lagos.
- Physical Safe Spaces programming is also associated with men's decreased approval of silencing women.
- By contrast, the Purple logo and billboard messages correlate with increased reporting and approval of silencing, especially among men. These overall results are driven by strong correlations between V4C and negative outcomes in Kano and Lagos.

This raises the question of whether messages with more superficial engagement and consequently less detailed explanations or discussions of gender messages may lead to either a misunderstanding of the message itself or create more space for possible backlash (billboards singularly promoted the 50-50 message). It is noteworthy that the two types of programming that involve in-depth discussion of gender issues show either neutral or positive results with respect to silencing women. Conversely, the two types of programming where slogans or branding may often be presented without a deeper conversation about gender are associated with increased silencing.

In terms of state outcomes, we see that in Enugu, V4C programming consistently shows a correlation between Purple content and desired outcomes (decreased silencing), regardless of gender or programming

type. Kano and Lagos, however, show correlations between Purple exposure and increased silencing (a result that is driven by exposure to logo and billboard content, but not radio). The reason for these divergent state trends is unclear, although it may be that different states were at different levels of readiness for change, making young people more or less open to messages about gender. Another influencing factor may be the relative exposure people had to different types of programming – in Lagos, radio penetration was low, whilst online engagement was high, so many young people may have had more superficial exposure to Purple or exposure that has been 'diluted' by other online content (see section 2.4).

Table 10	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women	--	-0.22***	--	--	--		--
Men	+0.18***	--	+0.10*	+0.13**	-0.39*		--
Enugu							
Women	-0.23**	-0.56***	-0.21**	-0.26***			--
Men	-0.20**	-0.37***	--	-0.27***			--
Kaduna							
Women	--	--	--	--			--
Men	--	+0.28***	--	--			+0.25**
Kano							
Women	+0.44***	-0.33***	NA	+0.44***			--
Men	+0.55***	--	NA	+0.55***			--
Lagos							
Women	+0.34***	--	+0.34***	+0.38***			--
Men	+0.45***	--	+0.38***	+0.35***			-0.44**

Table 10. VAWG: personal behaviour (I am/do told to be quiet ['rarely' or more often])

Table 11	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women	--	--	--	+0.13**	--		--
Men	+0.19***	-0.13***	--	+0.16***	--		--
Enugu							
Women	-0.21***	-0.17**	-0.23***	-0.18**			--
Men	-0.33***	-0.37***	-0.31***	-0.28***			--
Kaduna							
Women	--	--	--	--			--
Men	+0.20*	--	--	--			+0.20*
Kano							
Women	+0.44***	-0.19**	NA	+0.44***			
Men	+0.64***	--	NA	+0.64***			+0.30*
Lagos							
Women	+0.25***	--	+0.23**	+0.45***			--
Men	+0.29***	--	+0.24***	+0.31***			--

Table 11. VAWG: personal approval (approve of telling a woman she should be quiet)

3.3.5 Changes In Young People's Perceptions of Others' Expectations

Key findings

- Purple exposure is correlated with both men and women expecting others to be more supportive of women making decisions in the respondents' own households, compared to expectations in 2014.
- Purple exposure is correlated with both men and women expecting others to be more supportive of women standing for leadership positions now, compared to 2014 expectations.
- There is no correlation between Purple exposure and changed expectations of others' (dis) approval for physical VAWG.

In addition to measuring young people's own attitudes and behaviours, the APSN has also measured their perceptions of others' (who are important to them) expectations (cell F in the six-cell matrix, or the second order normative expectations). As explained in section 2.1, this is an important dimension of social norms change, where individual behaviours are influenced by expectations of those important to them.

The APSN finds encouraging results in this respect. Generally, young peoples' perceptions of what others important to them approve of have changed in similar ways to their own attitude and behaviour changes. Specifically, across the four states, we find:

- Decision-making: Purple exposure is correlated with both men and women expecting others to be more supportive of women making

decisions in the respondents' own households, compared to expectations in 2014. Strongest positive Purple-related change is observed in Kano and Enugu. No overall change is measured for Purple exposure in Kaduna or Lagos.

- Leadership: Purple exposure is correlated with both men and women expecting others to be more supportive of women standing for leadership positions now, compared to 2014 expectations. Strongest positive Purple-related change is observed in Kano.
- VAWG: Similar to personal-level results, we see no correlation between Purple exposure and changed expectations of others' (dis)approval for physical VAWG. At the state level, women's expectations that others approve of VAWG decreased with Purple exposure in Kano but increased in Kaduna. No significant correlation is observed for men between Purple and changes in their expectations about others.

3.3.6 Changes in social norms for a more supportive enabling environment for young women's empowerment

Key findings

- The number of positive attitudes and behaviours held by young people is increasing.
- Fewer Purple and non-Purple people do not hold any positive norms now, compared to 2014
- More Purple and non-Purple people hold all three positive norms now, compared to 2014.

For V4C, improving young people's attitudes and behaviours relating to women's decision-making, women's leadership and VAWG was a means to improve the enabling environment for young women's empowerment. In the previous sections, we have seen the significant improvements made in both attitudes and behaviours and where V4C has contributed to these improvements. In this section, we look at the extent to which individual young people hold some or all of the desired attitudes and behaviours for the three behavioural areas and the extent to which Purple people are more progressive in their attitudes and behaviours. This gives an indication of the extent to which the enabling environment for young women's empowerment is improving and the contribution V4C is making to that.

Overall, we see that Purple and non-Purple people are increasing the number of positive attitudes and behaviours they hold. Fewer Purple and non-Purple people do not hold any positive norms

now, compared to 2014, whilst more Purple and non-Purple people hold all three positive norms now, compared to three years ago. The largest gains in the three-norm category are seen for Purple young people, providing further evidence that V4C has played a role in promoting positive gender behaviours and attitudes across the three behavioural areas. Of further note, is the fact that the Purple and non-Purple groups look fairly similar in their attitudes and behaviour at baseline, suggesting that V4C was reaching people regardless of their predisposition toward gender-empowering messages.

Figure 4 below illustrates how the number of targeted behaviours practiced by young people has changed over time, and how that number varies by Purple exposure. We see at baseline our two groups (those who did and did not recognise Purple in 2017) were fairly similar – equal numbers of 'Purple' and 'non-Purple' youth practice none and all three of the target behaviours. The only difference is that Purple people were slightly more likely to practice two norms compared to the non-Purple group, and the opposite holds for the practice of one norm.[20]

By 2017, the overall number of young people practicing two or all three of the target behaviours has increased, regardless of Purple exposure, although where change is happening appears to vary for Purple and non-Purple young people. For non-Purple youth, the largest growth is from one to two norms (little change in how many people from that group practice all three norms). For Purple youth, the largest growth is from two to three norms – and this jump represents the largest increase seen for any group between 2014 and 2017.

20 The '2014 Purple' bars are not for people who recognised Purple in 2014, but rather it shows the group of 2017 Purple people's behaviours back in 2014.

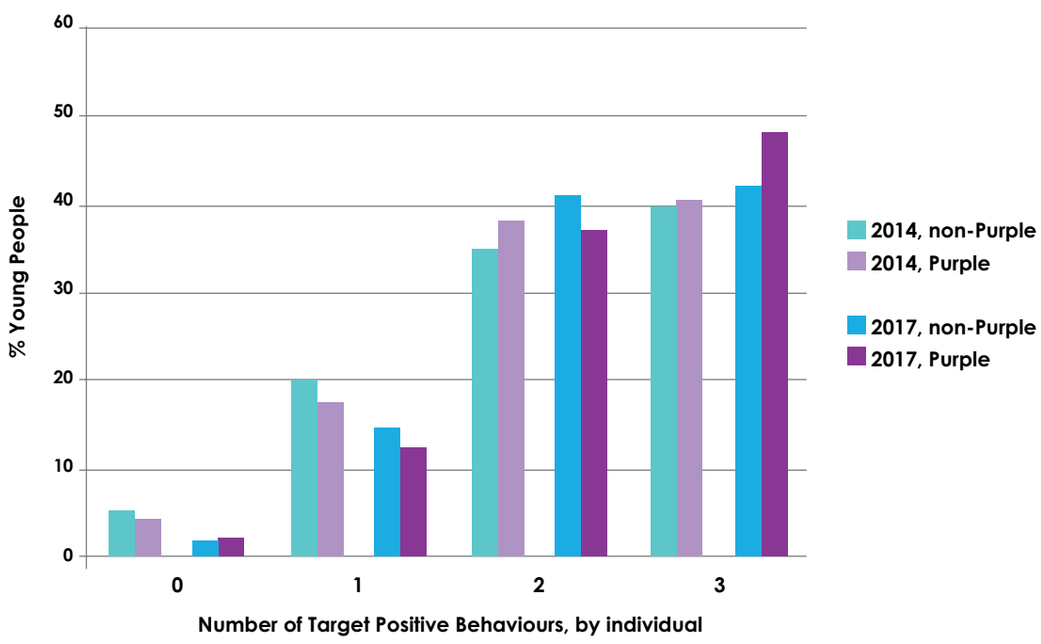


Figure 4: Percentage of young people practicing target positive behaviours

A similar – and stronger – pattern emerges when one considers how young people's attitudes in the same three areas have changed over time. Again, we see 1) there is a substantial gain in the number of both Purple and non-Purple youth holding all 3 positive attitudes, and 2) the largest change comes from Purple youth who now hold all three positive attitudes.

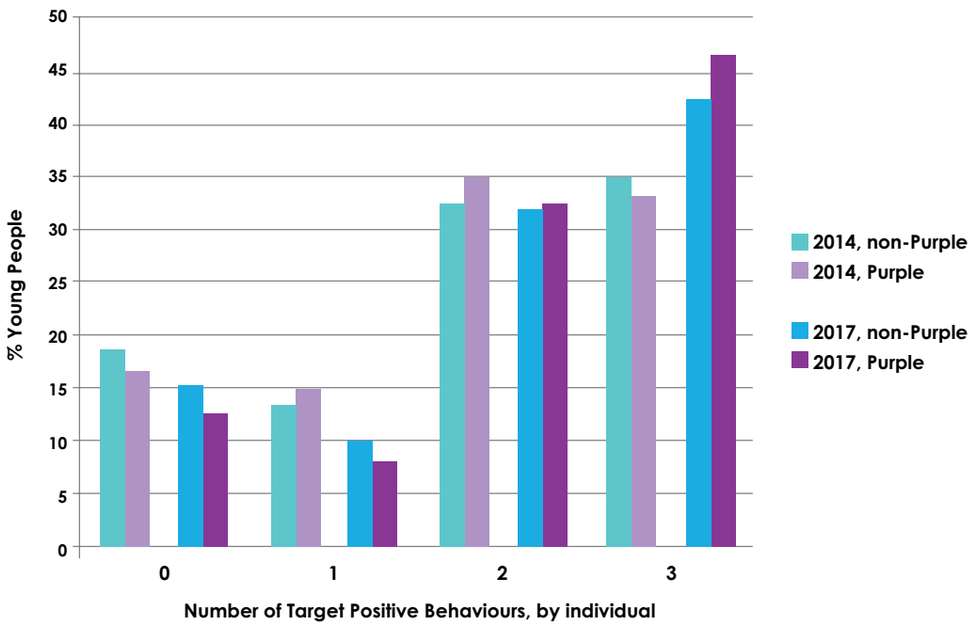


Figure 5. Percentage of young people approving of target positive behaviours

3.3.7 Changes in young people's contemplation of gender issues

Key findings

- Purple exposure is associated with larger increases in how much people say they think about gender issues.
- Radio, billboards, and the purple logo all correspond with increased contemplation of gender issues.
- Website exposure does not correlate with significant reported changes in contemplation of gender issues in any of the four states.

The supplemental APSN survey measures contemplation of gender norms to give insight into potential future changes in attitudes and behaviours. Even in places where little behaviour or attitude changes are observed, higher levels of contemplation indicate that people may have new information now or are considering gender questions which had gone unchallenged in the past. Here, we rely on self-reported perceptions of change measured by the question 'Are you thinking more or less about these types of gender issues now, compared to 2 years ago?' This question is retrospective because we did not include a measure of contemplation in the baseline study.

Purple exposure is associated with larger increases in how much people say they think about gender issues. This association is observed in both the North and the South, and for both men and women. On average, all men, regardless of Purple exposure, are thinking about gender issues more – however, the effect is twice as large for Purple men. Non-Purple women on average say they have not changed how much they think about gender issues, while Purple women have increased how much they contemplate gender norms. Effects for women are twice as large in the South as in the North.

Radio, billboards, and the purple logo all correspond with increased contemplation of gender issues. These results are important, because even in cases where change is slow to occur, it appears that young people exposed to our initiatives are thinking about gender in new ways that may catalyse change in the future. Website exposure does not correlate with significant reported changes in contemplation of gender issues in any of the four states.

Table 12	Any V4C	Radio	Billboard	Purple brand	Physical Safe Spaces		Website
All states							
Women	**+0.30*** **	+0.11*	+0.21***	+0.19***	--		--
Men	**+0.42*** **	+0.14**	+0.32***	+0.24***	--		--
Enugu							
Women	+0.35***	--	+0.39***	--			--
Men	+0.41**	+0.22**	+0.37***	+0.20*			--
Kaduna							
Women	+0.09	+0.42***	--	--			--
Men	+0.36***	+0.32***	+0.29**	+0.28**			--
Kano							
Women	+0.15	+0.15*	NA	--			--
Men	+0.30***	--	NA	+0.30**			--
Lagos							
Women	+0.32***	--	+0.33**	+0.32**			--
Men	+0.29**	--	+0.33***	--			--

Table 12. Contemplation: am I thinking more about gender now than two years ago?

3.3.8 Changes in young people's potential to influence others

In each round of the APSN survey, we asked respondents how much influence they think they have on the people around them (on a scale of one to nine) to help understand the potential diffusion. This is a fairly standard question used to broadly measure one's level of self-efficacy or empowerment.

Key findings

- Purple men and women both showed larger gains in their potential to influence others compared to people who did not recognise Purple programming.

Comparing responses in 2014 and 2017, Purple men and women both showed larger gains in their potential to influence others compared to people who did not recognise Purple programming. This positive result, which is observed on average across the four states, appears to be driven particularly by strong results in Kaduna and Kano. In Kaduna, Purple exposure correlates with a larger change in potential to influence others for both men and women. In Kano, Purple exposure correlates with a larger change in potential to influence others for men (a result driven by radio exposure), and radio and Purple brand specifically correlate with positive changes in potential to influence others for Kano women.

In the South, there is no overall relationship observed between Purple exposure and changes in young people's potential to influence others (or, more specifically, people's perception that they can influence the people around them). It is worth noting, though, that in Enugu, radio and Purple brand exposure specifically appears to correlate with a less positive change in young people's potential to influence compared to people not exposed to these types of programming.

From a programming standpoint, radio and billboards especially show significant positive changes for women overall.

Table 13	Any V4C	Radio	Billboard	Purple brand	Physical Spaces		Website
All states							
Women	**+0.35*** **	+0.62	+0.36**	--	--		--
Men	**+0.32*** **	--	--	--	--		-0.78***
Enugu							
Women	--	-0.51**	+0.28*	-0.39**			-1.20***
Men	--	-0.46**	--	--			-1.33***
Kaduna							
Women	+0.59***	+0.65***	+0.49*	+0.64**			--
Men	+0.42*	+0.44**	--	--			-0.87***
Kano							
Women	--	+1.80***	NA	+0.58***			+1.21**
Men	+0.58***	+0.36**	NA	--			--
Lagos							
Women	--	--	--	--			+0.58*
Men	--	--	--	--			--

Table 13: Potential to influence others: how much influence I think I have on people around me

3.3.9 Changing young people's gender attitudes and behaviours through the online space

Key findings

- Interventions such as Purple Academy, which engage online users substantively, can have a positive effect on how young people think about gender issues but superficial engagement with Purple's online messaging and the availability of unmoderated online content jeopardise the effects that can be achieved.

V4C's experience of using the online space – the iampurple.ng website, Purple Academy, and social media – to promote attitude and behaviour change amongst young people shows that it can be a challenging arena through which to influence. APSN data shows that interventions like Purple Academy, which engage online users substantively, can have a positive effect on how young people think about gender issues but superficial engagement with Purple's online messaging and the availability of unmoderated online content pose significant risks to the effects that can be achieved.

A comparison of changes in attitudes and behaviours amongst young people from the general population (PA general)[21] with those who participated in V4C's online gender awareness course, Purple Academy[22] (PA completed) shows very different results from light and intensive web engagement. Both groups were asked how much they had changed on a number of gender issues over the last

21 Drawing on data from the APSN panel survey.

22 Drawing on data from the supplemental APSN.

two years. In all four areas, young people with intensive Purple Academy exposure (completion of a module) reported four to eight times greater change in their support for gender equality, compared to those with general Purple Academy recognition.

These results support the conclusion that Purple Academy promoted large gains in contemplation of gender norms and increased support for gender equality. In addition, they show that there is a large difference in superficial exposure to online Purple programming and actual engagement with online Purple content, where more general (and often less in-depth) Purple exposure correlates with much lower levels of reported change.

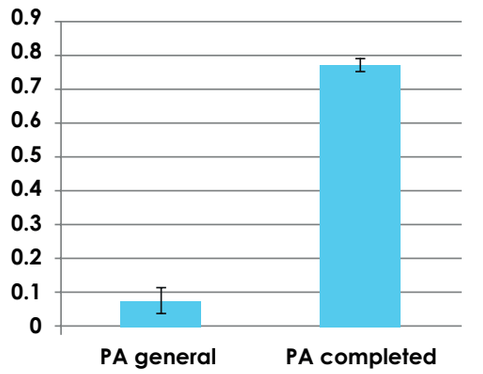


Table 14. Willingness to support women leaders: self reported change

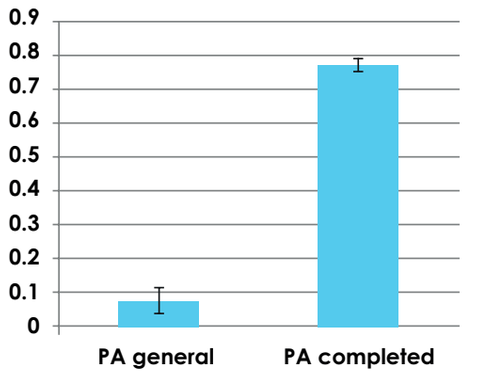


Table 15: Willingness to speak upagainst VAWG: self reported change

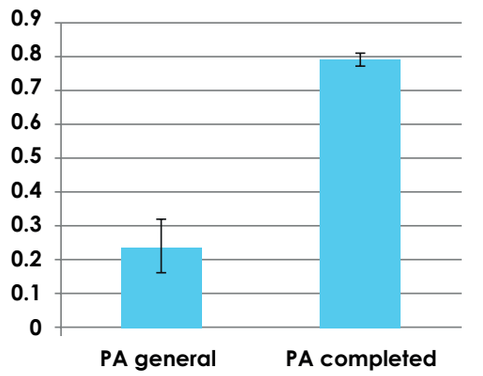


Table 16. Others should challenge women's limitations: self reported change

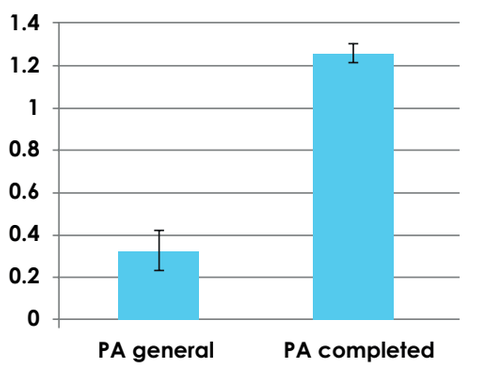


Table 17: Change in contemplation

With this in mind, it is important to consider how the consumption of other online content (web and social media) may affect young people's gender attitudes and behaviours. V4C has encountered strong voices opposing gender equality messaging in its own social media campaign. In V4C's case, online conversations were closely moderated, allowing healthy debates to run, but closing down those that became disparaging or extreme. Other sites and online conversations aren't moderated as closely, allowing polarised views to be shared. People who use the web and social media spaces frequently are likely to encounter these views, which may 'dilute' or undermine the effects of exposure to Purple messaging, especially if that exposure has remained at a relatively superficial level.

Section 4:

Attitude and behaviour changes amongst young people in targeted states: results amongst V4C intensive intervention beneficiaries

Section 3 presented the changes in attitudes and behaviours recorded amongst young people in the four target states in the period 2014-2017, and the likely contribution made by V4C to these changes.

Key findings

- Effects for intensive V4C interventions appear to be strongest among men, with Purple associated with dramatically higher rates of change and positive beliefs compared to men in the general population.
- Participants in V4C's intensive interventions are diffusing their new attitudes and behaviours. For each safe space participant, four others know about the intervention.
- Self-reported change is much higher for people indirectly exposed to Physical Safe Spaces, compared to others in the general population, and sometimes larger than for people directly exposed to Physical Safe Spaces.

In this section, we turn our attention to the recorded changes in attitudes and behaviours amongst young people who participated in intensive V4C interventions[23], drawing on data from the supplemental APSN.

Overall, effects for intensive V4C interventions appear to be strongest among men, with Purple being associated with dramatically higher rates of change and positive beliefs compared to men in the general population.

23 Purple Academy, Physical Safe Spaces, Gender Hub, Brand Ambassadors, Mens Network, and Listening Panels.

- A stronger belief that **women and men should enjoy equal opportunities**
  - 41 per cent stronger belief for Purple versus non-Purple men
  - 21 per cent stronger belief for Purple versus non-Purple women
- A stronger perception that one's **belief** about men and women enjoying equal opportunities **has strengthened** over the last two years
  - 69 per cent stronger change for Purple versus non-Purple men
  - 41per cent stronger change for Purple versus non-Purple women
- Stronger **support for female leaders**
  - 41 per cent stronger support from Purple versus non-Purple men
  - 22 per cent stronger support from Purple versus non-Purple women
- A stronger perception that one's **personal support for female leaders** has strengthened over the last two years
  - 117 per cent stronger change for Purple versus non-Purple men
  - 117 per cent stronger change for Purple versus non-Purple women
- Greater **willingness to speak up** against violence against women
  - 35 per cent stronger willingness for Purple versus non-Purple men
  - 25 per cent stronger willingness for Purple versus non-Purple women
- A stronger perception that one's **willingness** to speak up against violence against women **has strengthened** over the last two years
  - 105 per cent stronger change for Purple versus non-Purple men
  - 105 per cent stronger change for Purple versus non-Purple men
- A stronger **belief that others should challenge limitations** put on women
  - 38 per cent stronger belief for Purple versus non-Purple men
  - 24 per cent stronger belief for Purple versus non-Purple women
- A stronger perception that one's **belief** in challenging women's limitations **has strengthened** over time
  - 44 per cent stronger change for Purple versus non-Purple men
  - 26 per cent stronger change for Purple versus non-Purple women

Table 18: Changes in attitudes and behaviours amongst young people who participated in intensive V4C interventions compared to young people in the general population

4.1 Diffusion of new gender attitudes and behaviours amongst the general population

As described in section 1, V4C's ToC anticipates individuals involved in personal transformation in the 'Self' domain to diffuse more positive gender equality attitudes and behaviours to others within their reference groups. APSN survey findings suggest this diffusion is taking place. The main APSN survey has found that about one per cent of the population says they participated in Physical Safe Spaces, but another four per cent of the population says they know someone who participated in Physical Safe Spaces. This suggests that knowledge about Physical Safe Spaces has diffused to four times more people than participated in the intervention.

Reported changes in attitudes and behaviours amongst people indirectly exposed to Physical Safe Spaces are encouraging. Looking at results in the APSN main survey, we see that self-reported change on key gender indicators is much higher for people indirectly exposed to Physical Safe Spaces, compared to others in the general population. Furthermore, the self-reported changes for young people with indirect exposure to intensive programming are sometimes larger than the changes reported by those directly exposed, leading to an even bigger difference with young people in the general population. This may be because friends of programme participants were perhaps not as progressive in their original attitudes and behaviour, so contact with the ideas and attitudes from their Physical Safe Spaces friends catalysed stronger change than for programme participants themselves (who self-select into the programme based on pre-existing interest in gender issues).

- A stronger belief that **women and men should enjoy equal opportunities**

  50 per cent stronger belief Physical Safe Spaces participants' friends compared to general population

- A stronger perception that one's **belief** about men and women enjoying equal opportunities **has strengthened** over the last two years

  216 per cent stronger change for participants' male friends compared to general population

  133 per cent stronger change for participants' female friends compared to general population

- Stronger **support for female leaders**

  36 per cent stronger support from participants' male friends compared to general population

  7 per cent stronger support from participants' female friends compared to general population

- A stronger perception that one's **personal support for female leaders** has strengthened over the last two years

  100 per cent stronger change for participants' friends compared to general population

- Stronger **willingness to speak up** against violence against women

  No difference for participants' male friends compared to general population

  40 per cent stronger willingness for participants' female friends compared to general population

- A stronger perception that one's **willingness** to speak up against violence against women **has strengthened** over the last two years

  56 per cent stronger change for participants' friends compared to general population (similar change observed for men and women)

- A stronger **belief that others should challenge limitations** put on women

  30 per cent stronger belief for participants' friends compared to general population (similar change observed for men and women)

- A stronger perception that one's **belief** in challenging women's limitations **has strengthened** over time

  34 per cent stronger change for participants' male friends compared to general population

  54 per cent stronger change for participants' female friends compared to general population

Table 19: Changes in attitudes and behaviours amongst friends of V4C's Physical Space participants compared to young people in the general population

Contemplation of gender issues is also significantly higher among people whose friends participated in Physical Safe Spaces, compared to other young people in the general population. Physical Safe Space participants' friends think about gender issues 35 per cent more than young people in the general population. They also report a change in how much they think about gender issues that is 288 per cent larger than for young people in the general population. Effects are especially strong for men. This suggests that contact with people who participated in intensive Purple programming brings them into contact with new ideas, which motivates them to think about gender in new ways which ultimately may catalyse behaviour change.

Changes in attitudes and behaviour amongst friends of Physical Safe Space participants are not only stronger compared to those recorded for young people in the general population, but also compared to those changes recorded for young people who recognise Purple only through population-wide programming (radio, logo, billboards, etc.). This suggests that exposure to a Physical Safe Spaces participant had an amplifying effect and resulted in larger changes in contemplation, attitudes, and behaviours.

- Greater change in how much they feel able to influence others, compared to other young people without connections to Physical Safe Spaces participants
- A stronger growth in desire to participate in local leadership
- A stronger growth in visibility of women in local leadership
- A stronger growth in approval of women in local leadership
- A stronger growth in women's role in making decisions in one's household
- Stronger growth in approval of women's decision-making
- Larger growth in disapproval for VAWG, compared to other young people

Table 20: Changes in attitudes and behaviours amongst friends of V4C's Physical Safe Space participants compared to young people who recognise Purple only through population-wide programming

Section 5: Conclusions

The APSN endline results demonstrate that large-scale changes in young people's gender attitudes and behaviours have taken place in V4C's four target states over the 2014-2017 period.

As was anticipated when the V4C was originally conceptualised, this is likely to represent the first stages in a longer-term process. Increases in the extent to which young people are contemplating gender issues, compared to two years ago, suggests that, with continued programming, further attitude and behaviour change is likely among greater numbers of Nigerian young people.

Whilst we are not able to determine the exact contribution V4C has made to these improved attitudes and behaviours, the APSN endline results present compelling evidence that V4C has been an important driver of change. Exposure to Purple interventions corresponds with more positive increases over the programme's life in young people's contemplation of gender norms, perceptions of their potential to influence others, their attitudes and behaviours towards women's role in household decision-making, and their attitudes and behaviours towards women's leadership. Only in the area of VAWG does Purple programming not correspond significantly with positive changes in young people's attitudes and behaviours.

Furthermore, the V4C contribution to change that is detected by the APSN is likely to represent an underestimation of its actual contribution due to diffusion of effects through social networks, and V4C's impact on non-target age groups. The APSN and other V4C monitoring data confirm that young people and key influencers are diffusing their improved attitudes and behaviours to others, but people in their networks will not necessarily associate it with Purple and so this ripple effect is not picked up in the APSN.

The APSN results give some credence to V4C's ToC[24]. The ToC anticipated bringing about large-scale attitude and behaviour change through simultaneous action in the three domains of Self, Society and Institutions, which would create synergies between them. Whilst the APSN has not explored the effects of V4C's work to change formal institutions, nor has it captured the effect of synergies between domains[25], it does show that V4C actions in the Self and Society domains are having a positive effect.

For evidence of the effect of V4C's 'Self' interventions, we especially look to the supplemental APSN survey. As we have seen, intensive Purple interventions correspond with significantly larger self-reported change across a number of indicators measuring women's empowerment. Effects appear to be especially strong for men, suggesting that education about gender in safe, supportive environments has transformative effects not just on women themselves but also on the broader enabling environment for women.[26] Furthermore, we have seen that Physical Safe Spaces in particular have had a catalytic effect, mobilising young agents of change to influence others around them to adopt more positive gender attitudes and behaviours. These indirect contacts show similar, if not larger, changes in gender attitudes, as well as increased contemplation of gender norms. This suggests that intensive programming has a strong diffusion effect, as anticipated in V4C's ToC. If value for money is measured by intensity of change and potential for diffusion through social networks, intensive interventions such as Physical Safe Spaces offer high value.

24 See 'How Change Happens: a light touch study of the theory of change' for an exploration of how V4C's theory of change has worked in practice. www.v4c-nigeria.com/wp-content/uploads/2014/09/HCH-full-report_FINAL_WEB.pdf

25 Ibid. See also 'Strengthening the enabling environment for young women's empowerment in Nigeria: Achievements and learning from Voices for Change', which draws on all of V4C's datasets to describe the programme's achievements and learning.

26 These results are consistent with what we would expect given results of other gender programmes focused on men, such as MenEngage.

For evidence of the effect of V4C's 'Society' interventions, we look to the APSN panel survey and the results associated with mass media communications such as radio and billboards. As we have seen, overall V4C's branded mass media campaign is facilitating attitude and behaviour change at scale. Although the campaign has always been designed so young people are 'saturated' with consistent messaging from different multi-media sources, we do find that radio is one of the most effective methods of promoting positive gender attitudes and behaviour, especially outside of media-saturated Lagos. Radio is also most successful in reaching poorer groups, including less educated young people and those with fewer financial resources. If value for money is measured by average positive change across total number of consumers, radio would likely be the mechanism by which we see the greatest value for money. This said, change associated with V4C programming – whether broad or deep – is not uniformly observed across states and genders, nor does all programming evenly reach people of different socio-economic strata. Future efforts should consider the variation in outcomes presented in this report when designing interventions (considerations include the layering and saturation of media markets, baseline level of gender equality, literacy, and latent interest in learning about/shifting gender norms).

Whilst the APSN endline results find the Purple brand has been successful in communicating gender equality to young people, other V4C evidence[27] highlights how it unites people in a common cause, giving them a sense that they are part of a wider process of change. This is an example of the kind of synergies that may exist between actions in the Self and Society domains.

Although there is increasing interest amongst the development community in using the online space to reach out to, and influence, young people, V4C's experience shows that there is need for caution. Online discussions need to be carefully moderated to be effective in communicating nuanced messages. Online spaces that encourage safe, informative discussion of gender appear to have more consistently positive change than messages that can be consumed and disseminated faster but are susceptible to misinterpretation or hardening resistance (like billboards or the 50/50 slogan). Equally, online users may be accessing other websites or social media platforms which are not regulated in the same way, and are thereby exposed to polarising or counterproductive views, which can undermine results achieved.

Not only do the APSN endline results show that V4C is contributing to large-scale attitude and behaviour change amongst young people, they also show that this change can be achieved in diverse cultural contexts. Of the four states where V4C has operated, Kano State is the most conservative in terms of gender equality. But in Kano state, V4C has clearly contributed to some important shifts. Women in Kano have consistently shown strong, positive responses to Purple programming and were perhaps the group that overall responded most to V4C's broad messaging. While not all Purple messages resonated in Kano, V4C was able to learn and adapt, tailoring communications to state specific audiences.

27 How Change Happens: a light touch study of the theory of change www.v4c-nigeria.com/wp-content/uploads/2014/09/HCH-full-report_FINAL_WEB.pdf and Strengthening the enabling environment for young women's empowerment in Nigeria Achievements and learning from Voices for Change, November 2017.

The one area where V4C has had limited effect is in changing young people's attitudes and behaviours to VAWG. The reasons for this are difficult to ascertain but could include people being made more aware of what constitutes violence and therefore reporting violence where previously they would not, or factors other than social norms being strong influencing factors.[28] Clearly, how one programmes to influence VAWG related attitudes and behaviours is exceptionally nuanced and requires in-depth audience research to get right. Our own evidence has highlighted that the format in which VAWG issues are presented to target audiences can affect how they are received. For young people, dramatisations of VAWG in the media correlate with less positive change in gender attitudes over time, whilst media conversations and public awareness campaigns that talk about gender issues in greater depth correlate with stronger positive change, that is less support for VAWG.

By measuring the effects of the V4C programme on young people's attitudes and behaviours, the APSN survey has contributed to deepening understanding about what works, and what doesn't, for social norms approaches to attitude and behaviour change in Nigeria.[29] Conducting the APSN survey to measure these changes has been a learning process in itself. Lessons learnt are the subject of a separate paper, Measuring changes in social norms: learning from Voices for Change, available online.[30]

Key conclusions

- The APSN demonstrates that large-scale changes in young people's gender attitudes and behaviours have taken place in V4C's four target states over the 2014-2017 period.
- The APSN presents compelling evidence that V4C has been an important driver of change in almost all areas.
- APSN results give credence to V4C's theory of change, showing the positive effects of programme interventions in the Self and Society domains. Critically, intensive forms of programming are found to have a strong diffusion effect, and the Purple brand is not only well understood by young people, but also helps unite them in a common cause.
- V4C has had limited effect is in changing young people's attitudes and behaviours to VAWG. How one programmes to influence VAWG related attitudes and behaviours is exceptionally nuanced and requires in-depth audience research to get right.
- Whilst attractive for its reach, the online space is a challenging arena through which to promote attitude and behaviour change. Interventions require careful moderation and risk dilution from other less supportive online content.

27 How Change Happens: a light touch study of the theory of change www.v4c-nigeria.com/wp-content/uploads/2014/09/HCH-full-report_FINAL_WEB.pdf and Strengthening the enabling environment for young women's empowerment in Nigeria Achievements and learning from Voices for Change, November 2017.

28 For more in-depth learning on V4C's experience of changing attitudes and behaviours towards VAWG see 'Lessons from Nigeria on preventing violence towards women and girls through social norm change', V4C Learning Paper, October 2017 www.v4c-nigeria.com/wp-content/uploads/2014/09/1624-V4C-LP-VAWG-WEB.pdf

29 V4C has published a range of learning products on different aspects of the programme, see www.v4c-nigeria.com/resources/

30 www.v4c-nigeria.com/wp-content/uploads/2014/09/1624-V4C-LP-Measuring-Change-2-COL.pdf

Appendix A:
V4C's audience in statistics, compared to general populations, disaggregated by state and gender

	General Population	Any V4C	Radio	Purple brand/ logo	Purple Academy
Enugu					
Women	98% Christian 86% HS grad 13% married 82% farming 58 = ppindex Ave. age = 23	99% Christian 84% HS grad 13% married 84% farming 59 = ppindex Ave. age = 23	98% Christian 86% HS grad 11% married 88% farming 59 = ppindex Ave. age = 23	99% Christian 84% HS grad 14% married 84% farming 59 = ppindex Ave. age = 23	100% Christian 90% HS grad 8% married 79% farming 60 = ppindex Ave. age = 23
Men	98% Christian 84% HS grad 4% married 81% farming 60 = ppindex Ave. age = 23	99% Christian 84% HS grad 3% married 84% farming 62 = ppindex Ave. age = 23	98% Christian 84% HS grad 4% married 85% farming 62 = ppindex Ave. age = 23	99% Christian 83% HS grad 3% married 85% farming 62 = ppindex Ave. age = 23	99% Christian 86% HS grad 2% married 79% farming 65 = ppindex Ave. age = 24

	General Population	Any V4C	Radio	Purple brand/ logo	Purple Academy
Kaduna					
Women	52% Muslim	53% Christian	51% Christian	52% Muslim	53% Christian
	45% HS grad	51% HS grad	45% HS grad	58% HS grad	73% HS grad
	38% married	32% married	34% married	25% married	25% married
	85% farming	83% farming	84% farming	74% farming	77% farming
	48 = ppindex	50 = ppindex	48 = ppindex	52 = ppindex	51 = ppindex
	Ave. age = 23	Ave. age = 23	Ave. age = 23	Ave. age = 23	Ave. age = 22
Men	52% Muslim	56% Christian	55% Muslim	62% Muslim	73% Muslim
	62% HS grad	70% HS grad	70% HS grad	75% HS grad	77% HS grad
	14% married	11% married	12% married	15% married	19% married
	85% farming	83% farming	83% farming	82% farming	60% farming
	47 = ppindex	49 = ppindex	48 = ppindex	48 = ppindex	49 = ppindex
	Ave. age = 23	Ave. age = 23	Ave. age = 23	Ave. age = 23	Ave. age = 23
Kano					
Women	97% Muslim	97% Muslim	97% Muslim	95% Muslim	89% Muslim
	22% HS grad	30% HS grad	28% HS grad	54% HS grad	37% HS grad
	64% married	59% married	59% married	55% married	65% married
	80% farming	75% farming	76% farming	57% farming	69% farming
	40 = ppindex	42 = ppindex	42 = ppindex	48 = ppindex	41 = ppindex
	Ave. age = 24	Ave. age = 24	Ave. age = 24	Ave. age = 23	Ave. age = 24
Men	92% Muslim	90% Muslim	89% Muslim	83% Muslim	74% Muslim
	54% HS grad	67% HS grad	65% HS grad	77% HS grad	90% HS grad
	16% married	14% married	12% married	14% married	6% married
	73% farming	63% farming	58% farming	63% farming	29% farming
	44 = ppindex	47 = ppindex	47 = ppindex	50 = ppindex	56 = ppindex
	Ave. age = 23	Ave. age = 24	Ave. age = 24	Ave. age = 24	Ave. age = 23

	General Population	Any V4C	Radio	Purple brand/ logo	Purple Academy
Lagos					
Women	62% Christian 87% HS grad 24% married 16% farming 63 = ppindex Ave. age = 23	65% Christian 88% HS grad 24% married 19% farming 65 = ppindex Ave. age = 23	64% Christian 96% HS grad 29% married 18% farming 64 = ppindex Ave. age = 24	67% Christian 92% HS grad 24% married 22% farming 66 = ppindex Ave. age = 23	63% Christian 96% HS grad 28% married 27% farming 67 = ppindex Ave. age = 24
Men	61% Christian 89% HS grad 3% married 15% farming 62 = ppindex Ave. age = 23	67% Christian 90% HS grad 3% married 17% farming 62 = ppindex Ave. age = 23	66% Christian 96% HS grad 2% married 19% farming 65 = ppindex Ave. age = 23	68% Christian 90% HS grad 2% married 13% farming 61 = ppindex Ave. age = 23	66% Christian 94% HS grad 2% married 15% farming 69 = ppindex Ave. age = 24

Annex B:
APSN Detailed Methodology

The attitude, practice and social norms panel survey was conducted with 16-25 year old females and males using a three-stage cluster household survey design.

B.1.1 Survey methodology

V4C is an innovative and ambitious project that breaks new ground by using both traditional and new media to reach its audiences and lay the foundations for changes in the social norms governing gender relations in Nigeria.

Programming is carried out in four Nigerian states, and thus the survey is designed to accurately measure the attitudes and behaviours of youth in these states. V4C programming also is being targeted at the age range 10-35 years, but ethical issues dictate that youth below the age of 16 will not be enumerated. In order to accurately measure changes across the knowledge, attitude and practice spectrum, it is important to select a population that most closely approximates the age at which both the direct intervention (i.e. face-to-face and online interactions) and the radio content programming targets.

B.1.2 Survey universe

The sample universe consisted of 16 to 25 year old females and males in the local government areas (LGAs) within the four programme implementation states (Enugu, Kaduna, Kano, and Lagos). Because it was not possible to determine the exact radio catchment area for the relevant stations in each state, enumeration areas were randomly selected regardless of potential radio exposure under the assumption that radio coverage, while not complete, was still fairly homogenous across the state. The sample frame included all residences, but excluded post-secondary institutional dormitories.

To ensure that every male and female between the ages of 16 and 25 had an equal opportunity of selection within the sample universe, in the final sampling stage, a household listing was undertaken prior to the survey enumeration, rather than quicker and cheaper approaches like random walks. A random walk has the deficiency of not being able to ensure that everybody has an equal chance of selection, and can result in nontrivial bias and imprecise weights. In some situations, random walks have been shown to under-represent populations living on the outskirts of a Primary Sampling Unit (PSU) – who are often systematically different from those living closer to a PSU centre (poorer, higher percentage of ethnic minority, etc.)[31]. As the last Nigerian census was conducted in March 2006 this could not be relied upon to be sufficiently up-to-date as a household listing for respondent identification within enumeration areas (EAs) for this survey. Therefore a household listing was undertaken, which listed 52,500 individuals from the selected enumeration areas. The household listing also enables the project to select replacement respondents as the sample matures and attrition occurs. EAs were selected randomly using a list from the last census in 2006.

In total, 4,798 respondents completed the survey representing 2,401 households for females across the four states, and 2,397 households for males. The average response rate was 97.5 per cent (see table B.1).

31 DFID Afghanistan quality assessment of the Asia Foundation's survey of the Afghan people 2006-2009, September 2010.

Table B.1: Individual response rates by								
Individual-level response rate	**ENUGU**		**KADUNA**		**KANO**		**LAGOS**	
	Female	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**
Completed individual survey	603	590	597	608	601	603	600	597
Household refusal	11	8	12	9	15	6	10	8
Selected respondent refusal	5	4	9	5	7	5	5	5
Total	619	602	618	622	623	614	615	610
Individual response rate	97%	98%	97%	98%	96%	98%	98%	98%

After the mapping and listing of households in each EA cluster, the list of all members found in each cluster was populated into a spreadsheet for sampling of respondents. The list of respondents was stratified by age and gender within the EA. Eligible people (aged 16 to 25 years) in each cluster were listed by sex, and from the list of each sex, a random sample of five were selected. The final list of five males and five females was used for the survey. Additionally, a back-up list from which to draw names in cases of survey refusals was produced.

The number of respondents enumerated per PSU was maintained at five males and five females. This is for two reasons:

1. The design effect calculation, described below, is based upon five males and five females being enumerated per PSU.

2. The survey team structure and logistics were set up in the intervention area to efficiently enumerate 10 respondents per PSU, and significant changes to this would potentially introduce logistical inefficiencies.

As a side note, the piloting of the enumeration procedures in the four states also provided preliminary indications of the prevalence of 16-25 year olds who listen to the radio stations where V4C broadcasts its content. The information available on radio station listenership indicated that between 20-30 per cent of the radio listening cohort were aged 16-25 years old.

B.1.3 Establishing baseline and counterfactuals

Given the coverage of partner radio stations within V4C's four target states, it was difficult to find residents living outside the radio catchment area. Furthermore, the areas that are excluded from the radio catchment area are likely to be systematically different from areas receiving the radio signal in ways which could bias analysis were this non-listening group to be used as a control group. Therefore, it is necessary to explore alternative strategies for demonstrating that any observed changes over time are attributable to V4C programming rather than exogenous influences.

A multiple measurement approach can be considered in a design where there is no explicit counterfactual group. Multiple measurements before, during and after the intervention period provide the basis for causative inference. This would be 'study one' before measurement, asking respondents to report a change in attitude and practice in the year prior to the programme's implementation. This data creates a baseline rate of change and provides the empirical basis for causal inference.

B.1.4 Calculating Design Effect and Sample Size

Table B.2: Sampling structure over baseline and for subsequent annual enumerations for the four states for a single sex cohort, with totals for total number of respondents per survey rounds, with and without design effect incorporated

Age Survey #	16	17	18	19	20	21	22	23	24	25	26	27	28	29	N per cohort	N/round 2 sexes in 4 states)	N/round with DEFF=2
Baseline	29	29	29	29	29	29	29	29	29	29					290	2,320	4,640
End year 1	29	29	29	29	29	29	29	29	29	29	29				319	2,552	5,104
End year 2	29	29	29	29	29	29	29	29	29	29	29	29			348	2,784	5,568
End year 3	29	29	29	29	29	29	29	29	29	29	29	29	29		377	3,016	6,032

If the same rolling recruitment scheme for the panel participants is to be utilised with the radio listening audience, respondents will be recruited for all ages between 16 and 25 years, and rolling panel recruitment each year would be 30 new 16 year-old participants. Therefore the sample would grow with each enumeration in line with the right-hand column in table B.2. Separate cohorts for men and women would double the sample size in the right-hand column of table B.2.

With social norms, high design effects or inter-class cluster correlation should be expected given that norms by definition are commonly held behaviours in the population (with little variance). The best way of estimating a value for the design effect for a particular variable is by reviewing previous surveys enumerated with the same or similar variables. The only secondary data available is from the Demographic and Health Survey (DHS) for Nigeria, 2008. This survey did not focus on enumerating social norms, but does report on female circumcision prevalence, which is a social norm that is often targeted.

32 National Population Commission (2009); Nigeria Demographic and Health Survey 2008, national population commission, Federal Republic of Nigeria Abuja Nigeria & ICF Macro, Culbertson, Maryland USA.

The report on the results of the DHS survey[32] indicates a design factor of 4.163 for female circumcision of women aged 15-49 years. There were 41 women enumerated in each of the PSUs. They report 4.163 as a design effect, but in the narrative text, clarify that what was called a design effect is in fact the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. This is more commonly referred to as the design factor. The design effect is the square of the design factor, and represents the ratio between the variance using a clustered design and the variance that would result if simple random sampling alone had been used. The value of the design effect is used to multiply the simple random sample calculation of the required number of respondents to take into account the class correlation observed for a particular variable of interest. Clearly resources cannot stretch to a sample size 17 times larger than just simple random sampling.

In this case the variable of interest from the DHS is female circumcision that has a design effect value of 17.33 – high indeed. This was from a DHS PSU cluster size of 41 households – a large number of respondents per PSU – but using the following equation:

DEFF = 1 + rho (n – 1)

where n = observations within a cluster

rho = inter-cluster correlation - a measure of the similarity between two elements within a cluster compared to two elements randomly selected across clusters.

The reader will notice that rho is calculated by substituting n = 41 and DEFF = 17 in the equation above, resulting in an estimated value of rho=0.408264. Using this, figure B.3 presents the estimated design effect for a range of respondents within each PSU.

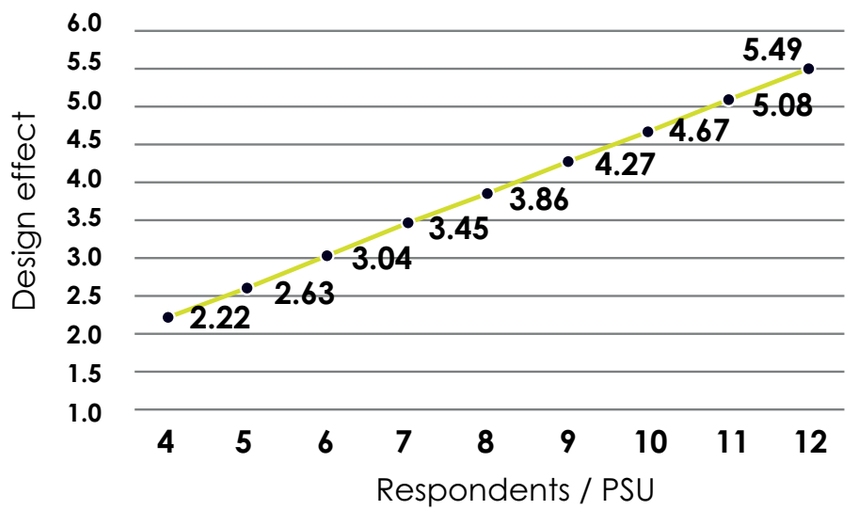


Figure B.3: Predicted design effect for 4-12 respondents per PSU

Given that there are not the survey resources to accommodate a design effect >2, it can be seen in figure B.3 that if there are five respondents/PSU, we can expect a design effect of 2.634 for our best proxy for social norms, i.e. female circumcision practice. Therefore the baseline survey sample will be structured to have five males and five females in each PSU and enumerate more PSUs than would have been the case if a large number of males and females were enumerated in each PSU. With this strategy it is hoped that the actual design effects will be in the order of magnitude of 2 rather than 17.

To test that our estimated design effects were reasonable, and that the survey would be sufficiently powered, we analysed survey results to confirm effect size. The design effects of the following questions from the enumerated baseline survey and the intervention areas were calculated for the following indicators that were thought to be most likely to attract high design effects, i.e. the social norm in a particular location might affect the way everybody in that location answered that question and that might be different to other locations. Questions such as these were expected to attract intra-cluster correlations (i.e. respondents within the same area/communities would likely respond in a similar manner) resulting in high design effects).

Table B.4: Dichotomised variables for the seven questions created and analysed for design effects

Indicator-binary	Mean design effect	Min design effect	Max design effect	# strata DEFF>2 (n/8)	Strata DEFF>2
4.37 How much do other people consider your views?	1.22	0.44	2.67	1	Kano females 16-25
4.38 How much do you think other people should consider your views?	1.27	0.53	2.85	1	Kano females 16-25
6.03 Approve man hitting wife if argues with him	1.19	0.41	2.37	1	Kano females 16-25
6.04 Approve hitting wife if refuses sex	1.26	0.47	2.61	2	Kano females 16-25
6.06 In the last month, how often has a man in your family hit or slapped a woman?	1.41	0.51	2.39	2	Kano females 16-25 Kano males 16-25
6.12 Female interactions with men: Hit or slapped you in the last month?	1.48	0.39	2.93	2	Kano females 16-25 Kano males 16-25
6.18 Male interactions with females: Hit or slapped a woman in the past month	1.18	0.52	1.97	0	

As can be seen from the results in table B.4, the mean design effects across all eight strata was well below two for all seven questions tested above. In a few cases, individual stratum exhibited design effects slightly larger than two. The stratum Kano female 16-25 attracted higher than 2 design effects in 6/7 of the indicators tested above. This indicates that females in Kano exhibited a greater inter-cluster correlation in their responses while exhibiting different patterns on responses across different EAs.

B.1.5 Construction of weights

The survey is not self-weighting, i.e. the sampling intensity varies across states. Therefore, when reporting across all states, the weighting of responses representing the inverse probability of respondent selection needs to be taken into account.

Table B.5 Sampled respondents per domain

State	Females_16-25	Males_16-25	Total
Enugu	380	371	751
Kaduna	214	202	416
Kano	327	362	689
Lagos	322	328	650
Total	1,243	1,263	2,506

Selection of the PSU with probability proportional to the size of the enumerated population allows for variations in the population of interest to be present between PSUs, while maintaining very similar final weights for individuals enumerated across PSUs of differing size (a desirable property of such weights). The probability of the EA selection was provided by an independent consultant that PSI contracted for the sampling. The probability of the EA selection did not vary within the local government area (LGA). The reasons for this were:

1. There were missing EAs in the 2006 census and for those EAs that were enumerated, EA size (population) within LGA was similar. Therefore, the EA selection probability is calculated based upon the assumption that all EAs within the LGA had the same population (not households), based upon the average population of the reliably enumerated EA's within that LGA. Hence the probability of EA selection within an LGA is the same for all EAs.
2. The inverse of the probability of selection of the EAs enumerated in the APSN baseline range from 64 to 497, representing the estimated average population of the selected EA.
3. The sampling consultant was adamant that the 2006 census data was not reliable enough to create a selection of probability of EAs based upon the population of 16-25 males and females separately.
4. Therefore, while the first probability of selection is approximate because of the averaging of EA population size, this bias in the weights is likely to

be small and neutral compared to the variation in the proportion of the population across all PSUs that are males or females aged between 16 and 25.

B.1.6 Household Listing

Because of the out-dated and incomplete nature of the 2006 census, 2006 enumeration area household lists could not be relied upon. Therefore, a case was made and accepted for conducting a household listing of all EAs to be enumerated.

From the household listing of 52,500 individuals from 464 EAs, the following sex and ages were missing, and therefore even though some of these may have been within the 16-25 cohort, they had to be ignored in the sampling procedure.

Table B.6: Missing data

Variable	Missing	Total	Percentage Missing
Sex	1,787	52,500	3.40
Age	1,863	52,500	3.55

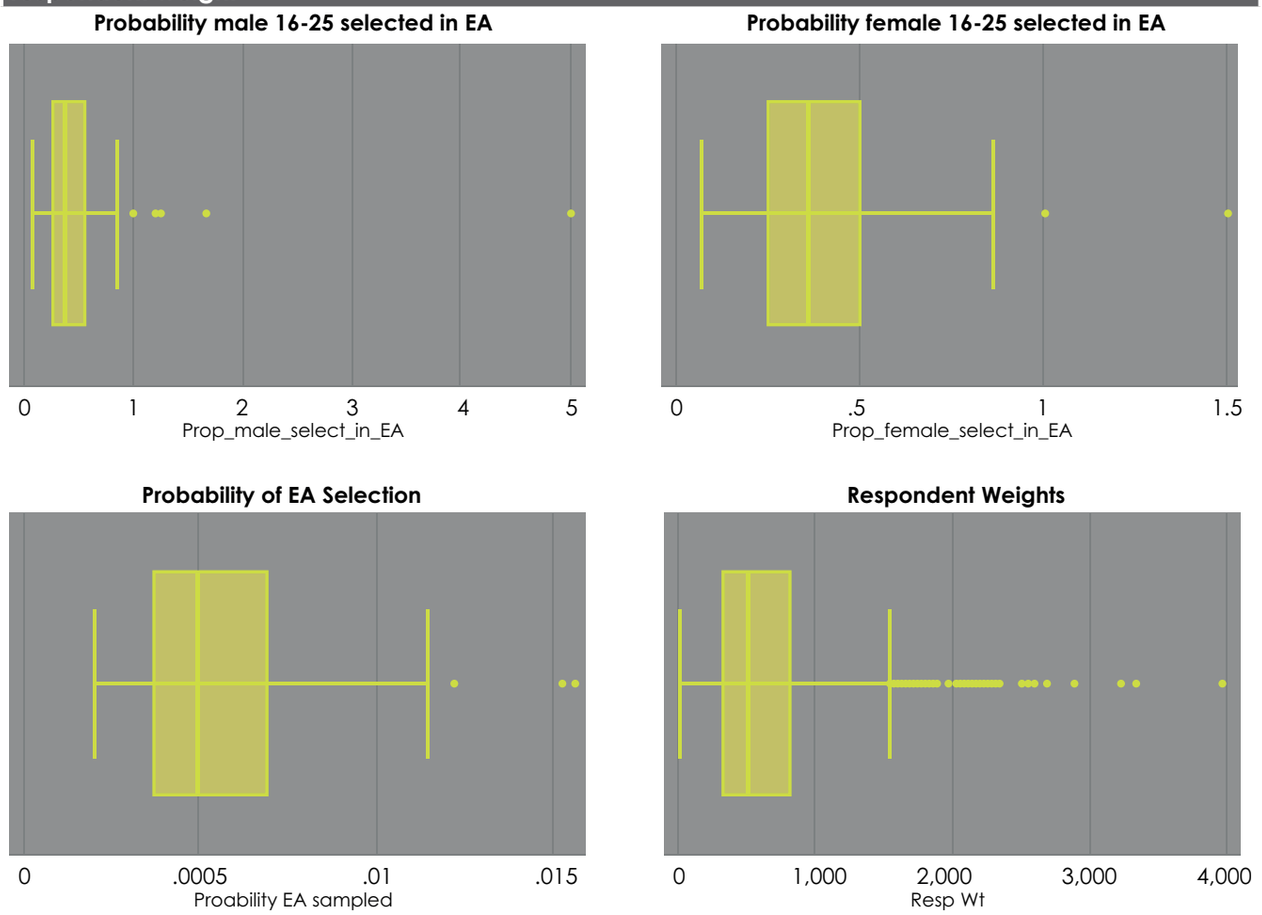
Unfortunately the household listing was not conducted through an ODK form, resulting in inconsistencies of data capture and data entry[33]. This data was corrected by PSI in June 2015. The household listing data allowed for a random selection of five males and five females per PSU. The survey visited 464 EAs (116 for each state – the expected number). Therefore, with the data fully normalised between the household listing in June 2015, EA selection and enumerated male and female respondents selection probabilities and weights were calculated in June 2015.

33 Enumeration area codes had been inconsistently implemented between the EA selection probability worksheet, household listing, and the survey data. Therefore, the lookup index had been changed to the Enumeration Name. When this survey data looks up the corresponding state through the linking index of enumeration name, there are 57/4799 cases where the state information mismatches between the state indicated in the EA selection probability table, and the state indicated in the enumeration data.

Table B.7: Summary statistics of the three probabilities making up the final respondent weight

Variable	Obs.	Mean	Std. Dev.	Min	Max	Ratio Max/ Min
Probability male 16-25 selected in EA	465	0.453899	0.31106	0.079365	5	62.99998362
Probability female 16-25 selected in EA	465	0.395204	0.195939	0.066038	1.5	22.71429804
Probability of EA selection	464	0.005703	0.002735	0.002011	0.015578	7.747687258
Respondent weight	4,799	639.7938	465.4085	26.21551	3960.148	151.0612611

Figure B.8: Box plots of probability of male and female selection within EA, EA selection and respondent weight



In summary.

1. Constructing a meaningful weight for a cross-domain analysis is not possible based upon the 2006 census data.
2. Luckily our impact evaluation period straddles the planned 2016 census, which is currently under preparation by the National Population Commission (NPC).
3. If this is successfully completed, this provides the best strategy for recalculating the EA selection probability separately for the male and female 16-25 populations. The new resulting weights can then be applied to all of the surveys conducted to date.
4. The 2016 data is much more timely than that of the last census from 2006. Therefore, the unweighted analysis is the most straightforward to interpret, and within states should only be used. Analysis across states using weight should be done with extreme caution and tested to see if the impact of any large variations in respondent weight.

5. The sum of the weights will not be equal to an estimate of the male and female 16-25 populations in any one domain.

6. Baseline analysis should be revisited once a correct probability of selection of the EAs based upon the male and female 16-25 population are available from the 2016 census.

B.1.7 Preparation for survey implementation

Prior to the commencement of the survey, a three-day pilot test was conducted in Epe, Lagos, with the senior survey implementing staff after they had been trained. The pilot study was conducted outside the main study sites; however, it was an area[34] that is demographically and culturally similar to the main study sites. Members of the survey company, Practical Sampling International (PSI), and V4C participated in the pilot study and, following each day of the pilot a group meeting was held to discuss improvements to the survey process, methodology and instrument. By the third day, all participants were confident that the survey design was clear and comfortable for respondents. The survey questions and procedures were improved in response to findings from the pilot.

In addition, the senior survey staff were provided with sufficient social norms training and familiarity with the survey questions and platform to subsequently train the full complement of enumerators in each target state.

Overall, two levels of training were implemented:

1. Central training of trainers and supervisors

2. Subsequent trainings in each state where the survey was conducted.

At the central training, all supervisors were guided through in-depth sessions on the survey objectives and methodology, enhancing their understanding of their roles in the survey, the survey process, ethical considerations and the procedures to assure adherence to the sampling strategy and enumeration of quality data. Social norms questions tend to be more complex than conventional survey questions. Therefore, significant time was spent explaining the purpose of these questions, and talking with survey professionals about how best to communicate underlying survey concepts in each question. In both central and state-level trainings, each question in the questionnaire was reviewed and role-played, and possible challenges were identified and addressed.

The training sessions covered the following topics: 1) background on the purpose of the survey and on data collection and design; 2) a participatory review of the questionnaire and practice interview techniques in class, including role playing; 3) sampling procedures and assignment of sampling areas; 4) the procedures for and importance of maintaining confidentiality; 5) sensitivity toward study subjects; 6) protecting the privacy of respondents; 7) referral services and procedures; 8) identification and response to adverse effects; 9) interviewer safety; and 10) child protection policy.

The survey questionnaire was translated into major local languages encountered in the four states by professional translators. These languages are Hausa,

34 Epe is a town and Local Government Area (LGA) in Lagos State, Nigeria, located on the north side of the Lekki Lagoon.

Igbo and Yoruba. The translation particularly focused on ensuring choice of words that are widely understood in the study sites – especially important for social norms questions. The translated questionnaire was then reverse-translated back into English to ensure that the questions were comprehensible and accurately conveyed survey concepts in all three languages.

All the translations were then programmed into the Open Data Kit (ODK) questionnaire, so that a single questionnaire could be conducted in English or any of the three other languages. The ODK Collect application has the ability to change back-and-forth between any of the four languages during enumeration of a questionnaire.

B.1.8 Data collection

The survey was administered for all target groups through one-on-one, face-to-face interviews in private settings that assured the confidentiality of information provided by the respondent. Participation in this study was voluntary. For those respondents aged under 18, consent to continue the survey with the minor was sought from the parent or guardian. It was the responsibility of all interviewers conducting the interview to provide all necessary information to the potential respondents, or potential respondent guardians/parents in the case of those under 18, so as to allow potential respondents to make an informed decision on whether to participate or not.

As this is proposed to be a panel longitudinal cohort survey, personal identifiers were recorded to ensure efficient return to the same respondents in the same household. These personal identifiers include name of the respondent, a geo-coordinate of the household, up to two telephone contact numbers, and a photograph of the dwelling. Respondents were advised that we wish to perform a number of follow-up surveys. The respondents were assured that all information and discussions will remain confidential, along with the household/respondent identifiers that have to be recorded to enable an efficient return to the same respondent in future survey rounds.

The survey was administered using handheld Android devices loaded with the ODK Collect android app[35]. This permits:

1. Rigorous data validation logic to be built into the questionnaire and ensures enumerator compliance with the questionnaire sequence and logic. Experience from previous studies by other projects clearly indicates that self-administered paper and pencil questionnaires are difficult for respondents to complete due to complex skip patterns. This often results in missing data. ODK questionnaires can be programmed to automatically make the necessary skips, thus addressing this and many other data entry quality issues.
2. A reduction in supervisory tasks to only those where the data-validation logic cannot be pre-programmed into an ODK Collect questionnaire because these specific checks require respondent's or other locality specific information.
3. An almost complete removal of any post-enumeration data management procedures other than backup procedures and ensuring that all

35 https://opendatakit.org/use/collect/

completed surveys are submitted to the ODK aggregate server.

4. No subsequent data entry is required.

The pilot was an important environment in which to determine any outstanding important non-ODK quality assurance procedures that needed to be undertaken. Statistics for Sustainable Development in the UK further reviewed the completed questionnaires once they were uploaded to Reading University's FormHub server (which aggregated all of the ODK Collect form submissions).

B.1.9 Ethical considerations

V4C, the survey company and the field supervisors ensured that the ethical regulations of the project that guarantee voluntary participation and confidential data management were met and that interviews were conducted in settings that guarantee auditory, and wherever possible visual privacy. The protocol, consent forms and draft questionnaires were approved by the National Health Research Ethics Committee of Nigeria (NHREC).

V4C also ensured that its survey did not make any respondents more vulnerable as a result of answering questions on recent abuse. The most sensitive survey questions as well as the framing language (for the VAWG module specifically) were drawn almost directly from the 2008 DHS survey. V4C has applied steps that the DHS took (consent language, making counselling services available, if needed) to minimise harm from these questions. In addition, only one respondent was enumerated per household in order to reduce the possibility that an abuser in the household understood the questions being fielded. Procedures were also in place for dealing with re-traumatisation.

At the start of all interviews, respondents were informed of the purpose and nature of the study through the information and consent form. As part of the consent procedure, the respondent was informed that the data collected will be held in strict confidence, and that he/she was free to terminate the interview at any point or to refuse to answer any questions that he/she felt uncomfortable with or unable to answer.

Participation in the study was on a voluntary basis. No inducements were made. It was not possible to guarantee anonymity because of the panel nature of the study, but respondents were assured that their data will be held confidentially, and only summaries at state-level by sex will be produced, and these state-level summaries by sex are sufficiently aggregated to ensure that no one community or individual can be identified. Efforts were made to ensure that respondents were clear that refusal to participate will not result in any negative consequences.

Violence against women and some other issues covered in the survey are sensitive subjects and men and women may be afraid to answer such questions. For this reason, particular care was taken to ensure that all questions were asked sensitively, in a supportive and non-judgemental manner. Interviewers were trained to be aware of the effects that the questions may have on the respondent and, if necessary, terminate the interview if the effect seemed too negative.

Part of the training provided to the researchers and fieldworkers covered

survey techniques as well as how to respond and, if necessary, provide support to someone who reports experiencing violence. Interviewers are trained to assist if asked, but to not force anyone into an intervention for which they might not be ready.

Finally, V4C and the survey company ensured the physical safety of respondents and interviewers. If the focus of the survey becomes widely known — either within the household or among the community — the topic of the interview may become known to a perpetrator of violence. For people experiencing violence, the mere act of participating in a study may provoke further abuse. This may place the respondent or the interview team at risk of violence, either before, during or after the interview. For this reason, the following measures were adopted to ensure that the research topic did not become widely known:

- To enable the respondent to explain the study to others safely, the survey was framed as the Study on People's Knowledge, Attitude and Practices on Social Issues and was introduced at the local and household levels in this manner.
- In all communications, discussions and paperwork about the study, the safe name was used during the research period.
- Interviews were only conducted in a private setting. Only children younger than two years were permitted to be present. Where necessary, locations outside the household where the interview could be conducted in private were used (such as in a nearby field or at a local clinic, church or mosque).
- The respondent was free to reschedule (or relocate) the interview to a time (or place) that may be more convenient for him or her.
- Interviewers were trained to terminate or change the subject of discussion if an interview was interrupted by anyone.

B.1.10 Support for respondents

Respondents taking the survey could potentially become upset when answering questions about violence. They could also be currently experiencing violence and want assistance with the situation. In order to respond to these needs, the survey developed multiple ways to link interviewees to support. First, interviewers offered a list of local and regional services as well as a national hotline to respondents. In order to ensure that the list of services did not reveal the nature of the survey to people who did not participate, the list included services for a range of health problems (e.g., malaria, HIV/AIDS, alcohol use) as well as child abuse and violence. Interviewers were instructed to indicate which organisations and agencies provided services for sexual violence, as well as other forms of violence, so that the respondents clearly understood where to obtain the necessary services. The social welfare officers in states where the survey was conducted, were contacted in advance to ensure cooperation should their services be required. No female or male respondents requested services.

B.1.11 Quantitative data analysis

Stata/IC Version 13.1 was used for data management and for analysis to take into account weighting of the variables

and the complex sample design. All results were calculated using sampling weights so that they were representative of youth in the four Nigerian target states.

The survey enabled the analysis of multiple layers of attitudes and behaviours – individual-level knowledge, attitudes and practices, group-level knowledge, attitudes and practices, and the prevalence of social norms related to target behaviours. Indicator variables were selected with careful thought to APSN M&E needs and the importance of measuring social norms. The survey is divided into four modules: 1) Household decision-making; 2) VAWG; 3) Leadership; and 4) Security and justice.

Questions aim to measure:

- Actual knowledge, attitudes and practices of target population
- Target population's perceptions of influencers' knowledge, attitudes and practices
- Target population's knowledge, attitudes and practices of influencers' expectations and behaviours. Each plays a role in social norms
- Girls and women's access and perception of services received from courts and the police

Outside research suggests that anxiety-inducing contexts may affect reports of political action. Therefore, the order of question blocks was randomised between the VAWG module and political engagement module to control potential bias and framing effects due to survey order.

The Grameen Foundation's Progress Out of Poverty Indicators for Nigeria 2003[36] informed a series of baseline questions which we asked to determine respondents' level of poverty. The Progress Out of Poverty indicators were updated in 2015 based on 2012 data. The APSN endline survey updated its progress out of poverty indicator questions to reflect the 2015 index, and poverty data at endline is analysed in accordance with the 2015 index.

36 http://www.progressoutofpoverty.org/country/nigeria

Attitudes, practices and social norms survey

Endline Report