# Appendix A



#### Open Report on behalf of Martin Samuels, Executive Director – Adult Care and Community Wellbeing

Report to:	Executive
Date:	5 March 2024
Subject:	Integrated Lifestyle Service Contract Extension
Decision Reference:	1032097
Key decision?	Yes

#### Summary:

This report seeks authorisation for an exception to the Council's Contract Regulations to enable a 12-month extension to the Integrated Lifestyle Service contract, plus 3 elements of additional delivery, with the current provider until the 30<sup>th</sup> June 2025. The total cost of this extension is £3,201,100.

#### Recommendation(s):

That the Executive:

- approves the extension of the Integrated Lifestyle Service contract for a period of 12 months, from the 1<sup>st</sup> of July 2024 to the 30<sup>th</sup> of June 2025, at a value of £2,717,490.
- 2. approves the extension of the Child & Family Weight Management component for the same period, at a value of £265,610.
- 3. approves the extension of the Strength & Balance (Falls Prevention) component at a value of £160,000.
- 4. approves the extension of the Employee Challenge component for the same period, at a value of £58,000.
- 5. delegates to the Executive Director Adult Care and Community Wellbeing in consultation with the Executive Councillor for Adult Care and Public Health authority to take all decisions necessary to give effect to the above extensions

Alternatives Considered:		
1.	Cease delivery of an Integrated Lifestyle Service (ILS) from 30 June 2024.	
	A discontinuation of the service would represent a decision to cease provision of prevention services targeting the most significant causes of ill-health & mortality in Lincolnshire.	
	This would be expected to lead to more demand on Council and NHS services, greater long-term costs, and a decline in overall health & wellbeing of the population. Furthermore, this would risk a worsening of health inequalities in the Lincolnshire population.	
	This would prevent Lincolnshire from being able to access £1.076m of additional government funding to improve smoking cessation as part of the 'Smokefree Generation' plan, as this funding is contingent on the council protecting current levels of expenditure on smoking cessation.	
	This would also represent a significant reputational risk for the Council, as the ILS is the key primary-preventative service for the Integrated Care System.	
2	Go out to tender for a replacement ILS contract	
	The Council's Public Health department is currently undertaking an exercise to map all the preventative services offered across the healthcare spectrum, to identify duplication and any gaps. There is considered to be a level of risk in progressing a new procurement for the ILS without analysis of this wider mapping programme, to ensure any future re-procurement specification avoids duplication and includes best potential coverage.	
	It is recommended that the outcome of the wider preventative services review and the learning from longer delivery of the Child and Family Weight Management component and Falls Prevention elements are incorporated into the re- commissioning exercise for ILS.	
Reasons for Recommendation:		

The ILS service is a key preventative service within Lincolnshire's Integrated Care Strategy and considered a vital part of building back Lincolnshire's health strongly after the pandemic.

The service focuses on the four leading risk factors impacting on health and wellbeing: smoking, obesity, physical inactivity, and excessive alcohol use with performance monitored through the achievement of individual outcomes linked to eight service key performance indicators (KPIs). The service has been independently evaluated and is

considered high performing compared to national benchmarks and comparator services.

The contract commenced on 1<sup>st</sup> July 2019 with a maximum duration of 5 years (3-year initial term plus a 2-year extension period) and is currently due to expire on 30<sup>th</sup> June 2024. Additional complementary elements of service delivery have been added during the contract term; a Child & Family Weight Management (CFWM) element in July 2022, a Falls Prevention Service in July 2023, and an annual Employee Challenge service for LCC staff and associated NHS partners. Collectively, these elements add approximately £480,000 to the overall annual contract value.

The Council's Public Health department is currently undertaking an exercise to map all the preventative services offered across the healthcare spectrum, to identify duplication and any gaps. There is considered to be a level of risk in progressing a new procurement for the ILS without analysis of this wider mapping programme, to ensure any future reprocurement specification avoids duplication and includes best potential coverage.

It is recommended that, in order to incorporate consideration of the outcome of the wider preventative services review and the learning from longer delivery of the CFWM and Falls Prevention elements into the re-commissioning exercise for ILS, an extension of 12 months to the current contract be granted (to include the retender process timeline) with the aim of a new contract being let and in place by the 1<sup>st</sup> July 2025. This will also ensure continuity of service delivery to residents during a period of additional service and system review prior to a re-procurement.

For the reasons above, this report seeks authorisation for an exception to the Council's Contract Regulations to enable a 12-month extension to the Integrated Lifestyle Service contract with the current provider until the 30th June 2025.

#### 1. Background

- 1.1. Lincolnshire County Council (LCC) and the Lincolnshire Integrated Care Board (ICB) jointly invest £2.7m annually (£2.2m and £0.5m respectively) in an Integrated Lifestyle Service (ILS). The commissioned provider, Thrive Tribe, utilising the branding of One You Lincolnshire (OYL), supports adults in Lincolnshire to adopt healthier lifestyles and is specifically targeted at those with long term conditions.
- 1.2. The contract commenced on 1<sup>st</sup> July 2019 with a maximum duration of 5 years (3year initial term plus a 2-year extension period) and is currently due to expire on 30<sup>th</sup> June 2024.
- 1.3. The service focuses on the four leading risk factors impacting on health and wellbeing: smoking, obesity, physical inactivity, and excessive alcohol use with performance monitored through the achievement of individual outcomes linked to eight service key performance indicators (KPIs). The service has been independently evaluated and is considered high performing compared to national benchmarks and comparator services.

1.4. Additional complementary elements of service delivery have been added to the core contract; a Child & Family Weight Management element, a Falls Prevention Service, and an Employee Challenge service for LCC staff and associated NHS partners. These elements add approximately £480,000 to the overall annual contract value.

## Service Rationale: the Importance of an Integrated Lifestyle Service in Lincolnshire

- 1.5. The increase in health-related economic inactivity since 2020 has been estimated by the Office of Budgetary Responsibility to have added costs of £16bn to the national economy. Preventable illness, disease and death attributed to unhealthy behaviours, cost the NHS an annual £11bn, and are the focus of the national 'One You' (now known as Better Health) campaign. Initiatives aim to encourage people to take control of their health and address unfair differences in life expectancy.
- 1.6. Tackling unhealthy behaviours, particularly in middle age, enables people to enjoy significant benefits now and in later life. Government signalled its ambition in its manifesto commitment "to extend healthy life expectancy by five years by 2035", and to save more lives in its 10-Year Cancer Plan. The impact of the Covid-19 pandemic has seen a further increase in obesity, inactivity, and alcohol consumption, increasing the need for primary prevention services.
- 1.7. Public Health interventions have been found to have a return-on-investment ratio of 14.3:1 although not all these returns will translate into cashable savings, it is clear that without investment in prevention, costs to the system will further increase.
- 1.8. The government's plans to address health inequalities will be dependent on ensuring that those groups who experience poorer health are able to take up proactive & preventative healthcare services, as well as healthy lifestyles, at a greater rate than the 'worried well'. Currently this is often the wrong way round, with easier access to help for those whose health is the best. This means that addressing inequalities is intrinsically linked to ensuring preventative services are well targeted at those who need the most help.
- 1.9. Lincolnshire's Integrated Lifestyle Service is designed specifically to address 4 risk factors that significantly contribute to the overall ill health, and the inequalities in health, of the Lincolnshire population:

#### Smoking cessation

1.10. In November 2023 the government published 'stopping the start: our new plan to create a smokefree generation', announcing changes to the legal age of purchasing for tobacco and additional funding for local authorities. They have since followed this up with an announcement of planned legislation to ban the sale of disposable

vapes. Additional funding of £1.076m per annum is being provided to Lincolnshire County Council in order to support and boost existing smoking cessation activity.

1.11. Smoking is the single biggest contributor to inequalities in life expectancy and the biggest cause of preventable cancer. Rates of smoking in Lincolnshire adults (18+) continue to remain higher at 16.0% (2022) than both East Midlands and England averages. The proportion of new mothers smoking at time of delivery is higher than the national average, at 14.1%.

#### Obesity

1.12. Rates of obesity in Lincolnshire are higher than the England average amongst both adults and children. In 2020/21, 67.6% of adults in the county were classified as overweight or obese. A quarter of Lincolnshire reception age children are overweight or obese, rising to over a third in Year 6. The associated health issues have made this a major priority in Lincolnshire.

#### **Physical Activity**

1.13. 1 in 5 of Lincolnshire adults are inactive, a recent analysis of Active Lives data for Lincolnshire shows, with a concerning overall trend of rising levels of inactivity since 2015, across all age groups, population types and socio-economic groups. We are not burning off enough of the calories that we consume. People in the UK are around 20% less active now than in the 1960s, and, if current trends continue, we will be 35% less active by 2030. The UK Chief Medical Officers' Physical Activity Guidelines (2019) recommends that adults should accumulate at least 150 minutes (2 1/2 hours) of moderate intensity activity (such as brisk walking or cycling) each week. The Health Survey for England shows that only 67% of men and 55% of women do at least 150 minutes of moderate physical activity per week. The Active Lives Children and Young People Survey reported between September 2019 to July 2020 that only 44.9% of children aged between 5 and 16 met the physical activity guidelines of being at least moderately active for at least 60 minutes every day (47% of boys, 43% of girls).

#### Alcohol

- 1.14. Over 200 health conditions are linked to alcohol, including cardiovascular diseases and types of cancer. In England, more working years are lost to alcohol than to the ten leading causes of cancer death combined. The Institute of Alcohol Studies found that "changes in alcohol consumption during the COVID-19 pandemic resulted in a significant increased health and economic burden in England from the alcohol-related diseases studied" and warned "if drinking patterns do not revert to pre-COVID patterns, the disease burden would be far higher". Reducing alcohol intake can have huge health benefits, and has an important place in a healthy lifestyle approach:
  - Alcohol consumption can increase calorie intake by 250 calories a day through consumption of alcohol or poor food choices whilst drinking.

- Alcohol enhances relapse risk for those who have quit smoking (86% of smokers drink alcohol)
- Alcohol reduction improves sleep quality, mood, energy levels and appearance. Alcohol disrupts natural sleep cycles, delaying entering REM sleep, creating negative impacts.
- 1.15. Preventing alcohol harm helps narrow socio-economic inequalities and contributes to the Government's 'levelling up' agenda, as well as reducing the alcohol-related workload for the NHS, meaning resources can be used elsewhere to benefit patients.

#### 2. Service Performance

- 2.1. The service was affected by the Covid-19 pandemic, notably in relation to the number of referrals received from primary care and the ability for Thrive Tribe and its partners to deliver face to face provision. As a result, a self-referral pathway was introduced, with data reviewed at quarterly contract management meetings in relation to:
  - The proportion received via the self-referral route
  - The proportion which are for smoking cessation (which has always been open to self-referral)
  - The proportion that have come as a result of a healthcare professional advising the individual to self-refer
  - How many have a long-term health condition
- 2.2. If referral data began to indicate a move away from those with long term health conditions and those advised by a healthcare professional, a dialogue between the Council and the provider would be initiated to discuss the continuation of the self-referral pathway.
- 2.3. Evidence is emerging that the ILS is increasingly well-known and embedded within clinical practice/referral pathways in Lincolnshire. Further service delivery under the current contract will strengthen this.
- 2.4. Despite the impact of the pandemic, the service has shown year-on-year increases in referrals and outcomes, meeting its KPI targets for outcomes for the first time at the end of contract year 4 (total outcome numbers to date are shown in the table below).

Pathway	Total outcomes July 2019 – June 2023	Increase in outcomes achieved since 2019
<b>Smoking</b> (4-week quits)	9,655	+35%
Weight Management (losing 5% of body weight)	7,687	+712%
<b>Physical Inactivity</b> (increasing to 150 mins activity per week)	10,050	+505%
Alcohol Reduction (reducing to 14 units per week)	2,187	+348%

- 2.5. Key successes at the end of year 4 of the ILS include:
  - Year-on-year increases in achievement against outcomes across all pathways as detailed above.
  - A high proportion of outcomes in weight management (43%) and physical activity (50%) coming from those on other pathways, with the majority of alcohol reduction outcomes being reached from those accessing other pathways (78%). These secondary outcomes are a direct result of the service offering integrated support across all pathways, which would not have been achieved if the 4 pathways were provided as standalone programmes.
  - Performance above targets across all pathways at the end of 2022/23.
  - 38% of those supported coming from the top 3 most deprived areas of Lincolnshire (or Lower Super Output Areas referred to as LSOA).
- 2.6. An independent academic evaluation was commissioned and undertaken by the University of Lincoln to understand the impact and effectiveness of an integrated service in comparison to standalone support programmes. The evaluation concluded that performance was at or above the national average in all pathways as shown in the table below (year 4 data was not available at the time of evaluation).

Pathway	National Average 2020/21	Year 1	Year 2	Year 3	Year 4
<b>Smoking</b> (4-week quits)	51-59%	48%	60%	56%	60%
Weight Management (losing 5% of body weight)	30%	25%	34%	39%	41%
Physical Inactivity (increasing to 150 mins activity per week)	13-18%	41%	46%	42%	39%
Alcohol Reduction (reducing to 14 units per week)	10-30%	55%	67%	58%	65%

- 2.7. The evaluation concluded that integrated delivery potentiated better outcomes (specifically in relation to alcohol reduction and physical activity). The use of Health Coaches also increased the outcomes achieved, as did regular attendance on the programme. The report did identify that whilst Covid-19 didn't significantly impact outcomes, changes in the types of client were noted (meaning that health inequalities were affected), but more recent data returns have demonstrated improvements in the number of individuals supported who are from areas of high deprivation suggesting a return to expected delivery.
- 2.8. The ILS contract has been the subject of recent variations to incorporate important new service developments: a new Child and Family Weight Management (CFWM) service in July 2022 and a new Strength and Balance (Falls Prevention) service in July 2023.
- 2.9. The CFWM service is targeted at eligible overweight children from deprived communities in Lincolnshire and offers a holistic service for families including physical activity and behaviour change. Programmes commenced in September 2022 and identifying eligible existing cohorts of children was not possible due to the absence of National Child Measurement Programme (NCMP) data, meaning that any referrals into the service came through direct engagement with the schools which was challenging at the start and resulted in lower-than-expected numbers. Although delivery is beginning to increase in the second year, time is still needed to fully embed the programme in the county and understand impact and outcomes more fully to inform longer term commissioning decisions.
- 2.10. Key successes of the first year of the Child & Family Weight Management programme to date (December 2023) include:
  - Quarterly increases in the number of extended brief interventions (EBIs) from 21 in Quarter 2 (July to September 2022) to 340 in Quarter 1 (April to June 2023). There was an expected reduction during the summer months (Quarter 2 2023/24), but numbers were 338% higher than during this period the previous year
  - Quarterly increases in the number of starters on the programme from 7 in Quarter 2 (July to September 2022) to 25 in Quarter 1 (April to June 2023). Again, whilst the numbers dropped during the summer holiday period, starters were 343% higher in 2023/24 than the previous year
  - 62% of children completing the course, with two-thirds of these coming from areas of high deprivation
  - 73% of children have reduced their BMI, and 61% have increased their physical activity as a result of the programme
  - 75% of parents reported increased physical activity as a result of the programme, with 70% reporting improved self-esteem following completion
- 2.11. The Strength and Balance service provides a programme of classes aimed at reducing the recurrence of falls for those who have recently fallen, preventing increased care needs, and enabling long term independence at home. This is a 24-

week programme, and as a result there is no completion or outcomes data from which to make commissioning decisions. Initial data is promising as it demonstrates a high uptake across the county, but as with the CFWM programme, the Council needs to be able to further monitor this new service in order to understand the impact and effectiveness in relation to falls prevention.

- 2.12. The length of the Strength and Balance programme means that there is limited outcome data as yet available, but interest in and take-up of the course is high. Key successes of the programme to date (December 2023) are:
  - A total of 465 referrals received.
  - 158 individuals starting on 13 programmes across 10 Primary Care Networks.
  - Outcomes starting to be recorded from the earliest cohorts, including 75% improving their Timed Up & Go performance and 71% progressing through 3 or more resistance bands during their programme.

#### 3. Commissioning Review

- 3.1. The Council's Public Health department is currently undertaking an exercise to map all the preventative services offered across the healthcare spectrum, to identify duplication and any gaps. There is considered to be a level of risk in progressing a new procurement for the ILS without analysis of this wider mapping programme, to ensure any future re-procurement specification avoids duplication and includes best potential coverage.
- 3.2. Recommissioning work for a future ILS is already underway and includes:
  - Updated benchmarking and literature review
  - Collection and analysis of post-Covid-19 data to improve KPIs to ensure they are fit for purpose and provide appropriate data from which to make inferences around service delivery and performance.
  - Further analysis on the self-referral pathway in relation to health inequalities, alongside more clarity on the role of digital technology in supporting service delivery.
  - Consideration of the interface with a future NHS Health Check Programme and upcoming recommissioning.
- 3.3. Extending the current contract will allow for an enhanced service and system review period and facilitate longer delivery of the CFWM and Falls Prevention elements. This will enable the Council to better determine the desired outcomes and shape of the future service, and selection of the best provider.

#### 4. Legal Issues

#### Procurement Implications

The Council's Contract Regulations usually require variations to contracts not expressly within the scope of the original procurement to be considered for procurement of a new contract. However, the Contract Regulations do permit exceptions to be made, approved by the Executive where the value is above the relevant threshold for the application of the Light Touch Regime under the Public Contract Regulations (PCR) 2015, and where the decision is compliant with the Council's obligations under the regulations set out in the PCR.

The PCR permits the modification of contracts under Reg. 72(1)(e) where the modifications, irrespective of their value, are not substantial within the defined meaning. For the purposes of the regulations, a modification is considered substantial where one or more of the following conditions is met:

- a) the modification renders the contract or framework agreement materially different in character from the one initially concluded;
- b) the modification introduces conditions which, had they been part of the initial procurement procedure, would have
  - i. allowed for the admission of other candidates than those initially selected,
  - ii. allowed for the acceptance of a tender other than that originally selected, or
  - iii. attracted additional participants in the procurement procedure
- c) the modification changes the economic balance of the contract or the framework agreement in favour of the contractor in a manner which was not provided for in the initial contract or framework agreement;
- d) the modification extends the scope of the contract or framework agreement considerably.
- e) where a new contractor replaces the original

In relation to the existing ILS contract, the proposed 1-year extension does not consititute a substantial modification as defined in the PCRs, on the following grounds:-

- a) the proposed 1-year extension is not "materially different in character" from the original contract, as it seeks to continue the same service (including service delivery, outcomes for residents and KPIs), between the same contracting parties, at the same cost rates.
- b) The modification does not introduce any new terms that would have allowed for the involvement of other candidates or the acceptance of another tender. It is highly unlikely that any potential bidder at the time of the original competition would have been attracted by a 6-year contract but not by the 5-year contract originally offered, so the proposed 1-year extension is not deemed substantial on these grounds.

- c) Although there is an increase in overall value of the contract, the provider will be required to perform services commensurate with the value of increased payments so the economic balance of the contracts will not change.
- d) The proposed 1-year extension seeks to increase the contract length by 20%, which is not considered 'considerable' in relation to the original 5-year contract term. The scope of the contract remains the same: the above points around seeking continuation of an existing service without modification to cost rates or service level expectations also apply here.
- e) This does not apply as the contracting parties remain the same.

The conduct of the new procurement process for the full re-tendering of the service, will occur during the extension period, with a newly commissioned service due commence with effect from 1 July 2025. Pre-procurement market engagement would also take place in advance of the procurement competition phase, demonstrating the opportunity of the new contract to providers in the market.

#### Equality Act 2010

Under section 149 of the Equality Act 2010, the Council must, in the exercise of its functions, have due regard to the need to:

Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Act.

Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.

Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The relevant protected characteristics are age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; and sexual orientation.

Having due regard to the need to advance equality of opportunity involves having due regard, in particular, to the need to:

- Remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic.
- Take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it.
- Encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities.

Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to tackle prejudice, and promote understanding.

Compliance with the duties in section 149 may involve treating some persons more favourably than others.

The duty cannot be delegated and must be discharged by the decision-maker. To discharge the statutory duty the decision-maker must analyse all the relevant material with the specific statutory obligations in mind. If a risk of adverse impact is identified consideration must be given to measures to avoid that impact as part of the decision-making process.

The Integrated Lifestyle Service is a health-promoting service intended and designed to address health inequalities, including in groups that have protected characteristics.

It has been independently evaluated by the University of Lincoln and been found to have a net positive effect on health inequalities.

The service is designed to work with those who have long-term health conditions, including those who are disabled, and to work to improve their health.

Therefore, it is considered that the ILS is an important part of the council's commissioning programme that would be expected to have a positive benefit, weighted towards those groups in areas of higher socio-economic deprivation and from minority ethnic groups.

#### Joint Strategic Needs Analysis (JSNA and the Joint Health and Wellbeing Strategy (JHWS)

The Integrated Lifestyle Service is designed to directly address several of the key priorities in Lincolnshire's Joint Health & Wellbeing Strategy, and the Joint Strategic Needs Analysis.

Lincolnshire has significantly higher rates of smoking and obesity than the national average, and lower levels of physical activity.

Recent data released by the Office of Health Improvement & Disparities (OHID) shows 70% of Lincolnshire's adults are classed as overweight or obese, higher than the England value of 64.8%.

16% of Lincolnshire's adults smoke, and the proportion is higher in some groups and populations. Over 14% of Lincolnshire's new mothers are smoking at the time of delivery.

Rates of physical activity are lower in Lincolnshire than the England average, with 65% of adult classed as physically active, compared to 67% in England overall.

The Child & Family Weight Management pilot was created to address higher rates of childhood obesity in Lincolnshire than in other areas nationally, with 23% of children in

Reception overweight or obese, rising to over 37% on children in year 6.

This service directly addresses these factors and is thus the primary service commissioned to deliver on the Joint Health & Wellbeing Strategy priorities **Healthy Weight** and **Physical Activity**, as well as addressing significant key risk factors that are relevant to the **Dementia** priority.

#### Crime and Disorder

Under section 17 of the Crime and Disorder Act 1998, the Council must exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent crime and disorder in its area (including anti-social and other behaviour adversely affecting the local environment), the misuse of drugs, alcohol and other substances in its area and re-offending in its area.

The Integrated Lifestyle Service is not designed to directly address crime and disorder but may have secondary benefits that contribute to improved rates of employment and economic wellbeing, via increasing the overall health and wellbeing of the population. This service is an important component part of an integrated care system which supports and enables people to stay in work, and in their homes, for longer.

#### 5. Conclusion

The ILS is a key component of Lincolnshire's developing Integrated Care System, preventing ill-health, addressing inequalities, and reducing demand on health and care services. It is considering to be well performing and has been independently evaluated and found to be outperforming national averages and benchmarks.

The ILS also functions as Lincolnshire's community-based Stop Smoking Service, and as such protecting current expenditure on this service will allow Lincolnshire to access the government's Smokefree Generation funding, which is an additional £1.076m per annum, and which must be spent on smoking cessation work.

Extending the contract of the Integrated Lifestyle Service for a period of 12 months will enable a robust recommissioning process to take place, which will consider whether additional elements (Child & Family Weight Management, Falls Prevention, Employee Wellbeing) should be included in any future model.

Not extending the contract at this point will result in the service ceasing on 30<sup>th</sup> June 2024.

#### 7. Legal Comments:

The Council has the power to enter into the contract proposed.

The decision is consistent with the Council's procurement obligations for the reasons set out in the Report.

The decision is consistent with the Policy Framework and within the remit of the Executive.

#### 8. Resource Comments:

Finance can confirm there is £3.2m available in 2024/25 to fund the contract extension. The funding will be from the 24/25 Public Health Grant allocation plus use of reserves, allocated within the reserve plan

#### 9. Consultation

#### a) Has Local Member Been Consulted?

Not applicable.

#### b) Has Executive Councillor Been Consulted?

Yes.

#### c) Scrutiny Comments

The decision will be considered by the Adults and Community Wellbeing Scrutiny Committee at its meeting on 28<sup>th</sup> February 2023 and the comments of the Committee will be reported to the Executive.

#### d) Risks and Impact Analysis

See body of report

#### 10. Appendices

The following appendices are attached at the end of the report:Appendix AIntegrated Lifestyle Service Independent Evaluation

#### **11. Background Papers**

The following background papers as defined in the Local Government Act 1972 were relied upon in the writing of this report.

Document title	Where the document can be viewed
Lincolnshire County	https://www.lincolnshire.gov.uk/downloads/file/3195/cpprs-
Council Contract and	lincolnshire-county-council
Procurement Procedure	
Rules (CPPRs)	
Smokefree Generation	https://www.gov.uk/government/publications/local-stop-
Local stop smoking	smoking-services-and-support-additional-funding/local-stop-
services and support:	smoking-services-and-support-guidance-for-local-authorities
guidance for local	
authorities	

This report was written by Andy Fox, who can be contacted on 07825 425245 or andy.fox@lincolnshire.gov.uk.





### LINCOLNSHIRE HEALTH AND WELLBEING BOARD

Report to	Lincolnshire Health and Wellbeing Board
Date:	28 <sup>th</sup> March 2023
Subject:	Evaluation of the Integrated Lifestyle Service, 'One You Lincolnshire'

#### Summary:

This report provides a summary of the findings from the University of Lincoln's evaluation of the Integrated Lifestyle Service (ILS). The report, completed in 2022, and based on data from 24,370 referrals, provides a key resource that will help to inform and shape the recommissioning of the service in 2024.

The evaluation found that the service exceeded current benchmarks for successful service delivery within national guidelines across all four pathways (smoking cessation, weight management, physical activity and alcohol reduction) and surpassed outcomes from Lincolnshire's previous, discrete lifestyle services.

The benefits of an integrated model were illustrated by the fact that a key predictor of successful outcomes was a person's participation in more than one pathway.

Reconfiguration of the ILS in response to COVID-19 pandemic lockdown restrictions did not have a negative impact on its overall reach, however, a decrease in referrals among the most deprived populations was seen and a increase in the bias of take-up towards women.

#### Actions Required:

For information only

#### 1. Background

#### 1.1 Smoking Cessation

The ILS surpassed its target of 50% quits at four weeks, achieving a 56% quit rate. This is significantly better than Lincolnshire's previous standalone service (46% quit rate) and is well over double the non-supported quit rate (25%). Success was more likely with older clients but was not affected by gender, rurality, ethnicity or deprivation. There was no negative impact seen from attending multiple programmes.

#### 1.2 Alcohol

The alcohol programme received fewest referrals, which was attributed principally to GPs' prioritisation of other referral pathways. However, despite this, there were high rates of alcohol reduction across the service as a whole, with 57% clients on the alcohol or health coaching pathways and 37% of all clients reducing their consumption to target levels.

This compares very favourably with the 10-30% success rate of national brief alcohol interventions. Participation in other pathways, particularly weight management, was strongly predictive of reducing alcohol consumption.

#### 1.3 Diet and Weight Management

Thirty-three percent of clients accessing the weight management (WM) intervention or health coaches lost 5% body weight at 12 weeks. This increased to 40% amongst those who attended a sub-contracted WM provider.

Weight loss was not limited to those on the WM pathway, with 25% clients across the whole service losing 5% body weight. The average weight loss was 6%, the service thus exceeding NICE guidance of 30% achieving 5% loss with an average of 3%.

#### 1.4 Physical Activity

43% of clients on the physical activity or health coaching programmes achieved the target of 150 minutes per week. This easily surpasses the 13-18% success rate of national, non-integrated exercise-referral models.

As with other pathways, high rates of increase in physical activity were recorded across all programmes. Other predictors of success were being female, older, accessing a health-coach and having a long-term condition. However, positive outcomes were less likely for the most deprived populations as well as for the unemployed and long-term sick.

#### 1.5 Access & effect on Inequalities

Participation was heavily biased towards women, who made up 66% of all clients. Ninety-three percent were White-British and there was an even split between rural (51%) and urban (49%) residents.

Thirty-eight percent of referrals were for residents from the 30% most deprived communities, which was significantly short of the target of 50% for this group. However, in large part, this was an effect of the service reconfigurations, namely digital delivery and self-referral, that were made in response to lockdown restrictions. Prior to these changes the most deprived 30% had made up 45% of referrals. Nonetheless this demonstrates that the programme is targeting lower socioeconomic (SE) groups and successfully engaging this population at a higher rate than those in higher SE groups. This represents evidence of a positive impact on health inequalities, as typically utilisation of preventative services is lower in more-deprived groups.

The majority of participants across the whole service were obese and aged 50+. The ILS was thus reaching an extremely important target group for preventative services, given the heightened risk of

long-term ill-health amongst this population. Likewise, there was evidence that the physical activity programme was particularly successful among people with conditions affecting mobility and pain management, both of which are major barriers against exercise amongst people at high risk of deterioration in health

#### **1.6 Completion**

Completion rates varied for each pathway. Weight Management exceeded NICE guidance of 60% with a 70% completion rate. Rates for smoking, health coaching and alcohol were 63, 56 and 46% respectively. Physical Activity data were incomplete so do not provide an accurate figure.

#### 2. Impact of the Lincolnshire Model

#### 2.1 Integration

The benefits of an integrated rather than segregated offer are clearly demonstrated by the number of positive outcomes for people accessing more than one pathway. For physical activity, weight management and alcohol, engagement with more than one programme was a key predictor of success; indeed, for physical activity it was the most important single factor, with participants being 2.7 times as likely to become active as those accessing just one pathway. Even smoking cessation, for which the literature has sometimes suggested integrated models were not suitable, was not negatively affected by engagement in multiple pathways.

#### 2.2 Health Coaching

Health coaching support appears to be an important component of the current offer, being strongly associated with positive outcomes across weight management, physical activity and alcohol, with those accessing a health coach being over 3.5 times as likely to reduce their alcohol to within target levels.

#### 2.3 Referrals

The qualitative data indicated that relationships with GPs, which have historically been difficult for lifestyle services in Lincolnshire, had significantly improved under the current model. This was evidenced by the 36% of referrals that came directly from primary care. It is likely that a significant proportion of the 39% of self-referrals were also instigated by GPs during non-face-to-face appointments with patients. The high number of self-referrals ensured that the ILS could continue to deliver at volume during Covid, however, as self-referral is more likely to be used by people with higher existing motivation and health-seeking behaviours, it is likely that this contributed to the shift in uptake towards more affluent population groups.

#### 3. Conclusion

- Success rates across all lifestyle interventions exceeded national benchmarks, despite the clear challenges to service delivery through the COVID pandemic.
- The overall advantages of an integrated model were demonstrated by the fact that there were no negative implications of participation in multiple programmes and many benefits, including weight loss, increased physical activity and decreased alcohol consumption, amongst people for whom these interventions were not their primary pathway.
- Evidence suggests that the service is positively addressing health inequalities. Outcomes were not affected by socio-economic status, and analysis of service access by deprivation decile highlights that those in lower SE groups were effectively targeted by the service.
- There was a strong bias towards women, and physical activity outcomes and take-up from the most deprived populations fell short of target. It appears though, that these participation patterns were, at least in part, the result of service reconfiguration during lockdowns.

• The findings demonstrate that One You Lincolnshire is an effective model and will contribute to the service's recommissioning process ahead of the contract end date in June 24

#### 4. Joint Strategic Needs Assessment and Joint Health & Wellbeing Strategy

The Council and Clinical Commissioning Groups must have regard to the Joint Strategic Needs Assessment and Joint Health and Wellbeing Strategy.

Healthy Weight is identified as a priority for Lincolnshire in both the Joint Strategic Needs Assessment and the Joint Health & Wellbeing Strategy and is a key part of the overarching Joint Health and Wellbeing Staretgy theme of placing a strong focus on prevention and early intervention.

#### 5. Consultation

#### 6. Appendices

These are listed below and attached at the back of the report		
Appendix A	University of Lincoln – Final Evaluation report of Integrated Care in Lincolnshire	

#### 7. Background Papers

No background papers within Section 100D of the Local Government Act 1972 were use in the preparation of this report.

This report was written by Sarah Chaudhary who can be contacted at <u>sarah.chaudhary@lincolnshire.gov.uk</u>

The University of Lincoln

# Addressing Multiple Unhealthy Risk Factors An Evaluation of Integrated Care in Lincolnshire



Page 66

### Contributors

Emma Sayers,<sup>1</sup> Heidi Green,<sup>1</sup> Professor Jacquelyn Allen-Collinson,<sup>2</sup> Dr Dave Dawson,<sup>3</sup> Dr Nima Moghaddam,<sup>3</sup> Dr Hannah Henderson,<sup>2</sup> and Professor Ros Kane<sup>1</sup>

1 School of Health and Social Care, College of Social Sciences, University of Lincoln, Lincoln, UK

2 School of Sport and Exercise Science, College of Social Sciences, University of Lincoln, Lincoln, UK

3. School of Psychology, College of Social Sciences, University of Lincoln, UK

This report presents independent research funded by Thrive Tribe and Lincolnshire County Council. The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of One You Lincolnshire. If there are verbatim quotations included in this publication, the views and opinions expressed are those of the interviewees and do not necessarily reflect those of the authors.

Published August 2022

i.

### List of Abbreviations

AIC	Akaike Information Criterion
ВМІ	Body Mass Index
СОМ-В	Capability, Opportunity, Motivation, Behaviour
GDPR	General Data Protection Regulation
GP	General Practice
ICCs	Intraclass Correlation Coefficients
ICS	Integrated Care Systems
ILS	Integrated Lifestyle Service
LCC	Lincoln County Council
LSOAs	Lower-Layer Super Output Areas
LTHC	Long Term Health Condition
МНС	Mental Health Condition
NCDs	Non-Communicable Diseases
NHS	National Health Service
OR	Odds Ratio
OYL	One You Lincolnshire
QALYs	Quality-Adjusted Life-Years
RE-AIM	Reach, Effectiveness, Adoption, Implementation, Maintenance
ТА	Thematic Analysis

### **Table of Contents**

CONTRIBUTORSI
LIST OF ABBREVIATIONSII
TABLE OF CONTENTSIII
LIST OF FIGURESV
LIST OF TABLES
EXECUTIVE SUMMARY VII
BACKGROUND1
RESEARCH OBJECTIVES
REPORT STRUCTURE
INTEGRATED CARE
MULTIPLE UNHEALTHY RISK FACTORS4
THE IMPACT OF COVID-199
OVERVIEW OF RE-AIM EVALUATION APPROACH11
RE-AIM PRINCIPLES11
APPLICATION TO RESEARCH12

OVERVIEW
METHODOLOGY14
RESULTS19
ELIGIBILITY, REFERRALS, AND DEMAND21
CLIENT MOTIVATION, COMMITMENT AND OUTCOMES26
QUALITY ASSURANCE, FIDELITY, AND PARTNER RELATIONSHIPS27
STAFF CAPACITY AND POST-COVID SERVICE DELIVERY
CLIENT CASE STUDIES
DATA ANALYSIS OVERVIEW
METHODS
RESULTS41
SERVICE OUTCOME EFFECTIVENESS AND PREDICTORS
PATHWAY ATTENDANCE AND COMPLETION52
COVID-19 RECONFIGURATION
LIMITATIONS
VALUE PROPOSITION
ACCESS AND REFERRALS TO ONE YOU LINCOLNSHIRE

CLIENT OUTCOMES OF ONE YOU LINCOLNSHIRE
WORKING RELATIONSHIPS WITH ONE YOU LINCOLNSHIRE
SERVICE COMPLETION AND SUSTAINABILITY OF ONE YOU LINCOLNSHIRE
IMPROVE ACCESS FOR DISADVANTAGED GROUPS
INNOVATIVE PROMOTION OF ALCOHOL SUPPORT
STREAMLINING OF DATA69
CONCLUSION
ACKNOWLEDGMENTS71
REFERENCES
LIST OF APPENDICES

### **List of Figures**

Figure 1. Why multiple unhealthy risk factors matter4
Figure 2. The COM-B Model of Change7
Figure 3. One You Lincolnshire Client Pathway8
Figure 4. Components of the RE-AIM framework in the context of One You Lincolnshire
Figure 5.Percentage of One You Lincolnshire clients from the 30% most deprived LSOAs compared
to commissioning target43
Figure 6.Service delivery differences in self-reported successful quit smoking rates
Figure 7.Likelihood of quitting smoking by client factors and quit attempts whilst using One You
Lincolnshire between June 2019 to February 202246
Figure 8.Service delivery differences in self-reported successful reduced drinking rates
Figure 9.Likelihood of reducing alcohol consumption whilst using One You Lincolnshire between
June 2019 to February 2022
Figure 10.Service delivery differences in self-reported successful increased physical activity rates
Figure 11.Likelihood of increasing physical activity to 150 minutes a week whilst using One You
Lincolnshire between June 2019 to February 202250

Figure 12.Service delivery differences in self-reported successful reduced weight rates	51
Figure 13.Likelihood of a 5% weight loss whilst using One You Lincolnshire between June	e 2019 to
February 2022	52

### **List of Tables**

Table 1. RE-AIM dimensions used in this evaluation and the scope of each dimension	
Table 2. One You Lincolnshire Programmes available at each site grouped by risk factor	15
Table 3. The number of interviews completed by June 2021	
Table 4. Characteristics of clients from pre-interview survey	19
Table 5.Outcome variables and descriptions of codes	
Table 6. Tertiary coach-level, secondary client level and primary level referral predictor val	riables
and descriptions of outcomes	39
Table 7.Client characteristics in quantitative dataset (N unique IDs = 16,354)	41
Table 8.One You Lincolnshire pathway attendance and completion	54
Table 9.Significant differences in demographic profile of clients accessing services pre-vs.	post-
COVID	

# **Executive Summary**

#### Introduction

This report presents the independent evaluation findings of One You Lincolnshire (OYL). OYL is an integrated lifestyle service that covers hundreds of county sites, including leisure centres, commercial weight management groups and sub-contracted sites. The service is also delivered over the phone and Microsoft TEAMS. The service supports weight loss, healthy eating, physical activity, alcohol reduction and smoking cessation for Lincolnshire residents from the most deprived areas with long-term health conditions. However, the service is open to all individuals in the county who meet the service's eligibility criteria of over 18 years old (12 years and older for smoking cessation). Clients must have a BMI of 30 or above for weight management pathways. Eligibility also includes less than 150 minutes of moderate physical activity, smoking tobacco and drinking more than 14 units of alcohol per week.

The service has self-directed online tier 1 guidance and tier 2 support that provides 1:1 health coaching and group classes and programmes. The service also partnered with commercial weight loss programmes—for example, Slimming World, Weight Watchers, and Second Nature to provide a range of interventions. OYL and Lincolnshire County Council commissioned the University of Lincoln to undertake the service evaluation. This report captures clients' experience using the service and health professionals involved in referrals and implementation. The effectiveness of the service was also compared to the standard provision of care.

#### Methods

A RE-AIM evaluation was implemented to have a comprehensive picture of OYL. The evaluation looked at the service's accessibility, effectiveness, implementation, and sustainability. In phase 1 of the evaluation, between July 2020-2021, 53 in-depth interviews were conducted. Participants included clients, health professionals, OYL staff, external

vii

partners and OYL leadership. In phase 2 of the evaluation, between July 2021 – July 2022, secondary data analysis was conducted. 24,370 referrals were nested within 16,354 clients and nested within 128 coaches.

#### Accessibility

Most clients referred to the service were White British and women. Clients in OYL from deprived LSOAs were likelier to have long-term health conditions and poorer mental health. The underrepresentation of men in the service was explored, and factors such as reduced GP visits, perception of women-dominant weight loss programmes and fears of seeking help affected access. COVID-19 put a considerable strain on primary care. Clinics focused on COVID-19 management, removal of face-to-face contact and, as a result, fewer referrals to OYL via GPs. One major reconfiguration in the service referral process was the introduction of self-referral. The average age of clients became younger and was more women dominant.

There were also fewer referrals from ethnic minorities, long-term unemployed and deprived populations. At a service level, alcohol consumption support had fewer referrals than other OYL pathways. Interviews showed that alcohol-related discussions were not always considered essential to GPs' work. Some GPs viewed alcohol support as challenging to ascertain in clients than more visually presenting risks like obesity and smoking. Coupled with limited time for appointments, GPs were more likely therefore to recommend weight loss and smoking cessation to clients.

#### Effectiveness

OYL outcomes were better across all pathways compared to previous standard care provisions. For instance, 56% of OYL clients self-reported quitting smoking at four weeks. In contrast to 46% of patients with past Lincolnshire benchmarks. Quitting was more likely in older OYL clients and those with a high confidence score. Additionally, 57% of OYL clients self-reported consuming less than 14 units of alcohol a week or decreased units by 50%. As opposed to 10-30% of patients using national brief alcohol interventions. Using a health coach and being engaged in other pathways increased the likelihood of reducing alcohol

intake for OYL clients. 43% of OYL clients also increased to 150 minutes of moderate activity a week compared to 13-18% on national exercise referral schemes.

Success was more likely for women and clients with LTHC. Using a health coach and participating in additional pathways also increased physical activity success. 33% of clients self-reported losing 5% of body weight after 12 weeks. 40% of Second Nature/Slimming World clients also met the target. Therefore, all OYL clients on weight management exceeded the NICE guidelines of 3% weight loss. Successful weight loss was associated with older clients, consistent attendance, and the use of a health coach.

Interviews highlighted that health coaches' rapport with clients built encouraging, positive relationships. Health coaches were also able to offer support for less referred pathways through weight loss motivations. Client interviews also found that personalised online delivery better-suited individuals with LTHCs. For example, clients with limited mobility could still engage in group activities via video calls. Although, some clients with financial difficulties did struggle with digital service delivery. Nevertheless, most clients achieved meaningful changes. Clients experienced increased confidence, motivation, and self-esteem, critical factors for sustained lifestyle changes.

#### Working relationships

Most OYL clients trusted GPs. As such, GPs often had access to engage with disadvantaged groups. Focus groups with external partners highlighted the role of OYL as a primary care intermediary. Many external partners viewed OYL as building relationships with GPs, enabling smooth referrals and delivery operations within the service. Although, some primary care staff presented gaps in knowledge of the OYL service model. Interviews with OYL leadership suggested quality assurance was encouraged across team members and working group implementation promoted integration. The relationships between OYL and partners were positive, and consistent communication and trust were highlighted as OYL's key strengths.

ix

#### Sustainability

The service provided continued access to support throughout the COVID-19 pandemic, and the service-maintained outcome success rates from pre- to post-reconfiguration. Completion rates for most pathways were over 50%, and for 'Drink Less' approached 50%. Move More completion rates appeared lower. However, attendance recording was inconsistent and under-representative for this pathway. There are some evident inequities in the uptake of reconfigured services. Most access seems to be enhanced for those from less deprived areas. As a result, the service did move further from the targeted representation of those from the most deprived areas. Remote access through digital solutions overcame restrictions to in-person delivery. Moreover, more open referral pathways boosted referrals from ~353 per month to ~668 per month. If sustained, outcomes delivered by OYL could lead to savings for the local health and social care system as integrated care may increase disposable income for local communities.

#### Conclusion

OYL provides crucial evidence on the benefit of clients with multiple unhealthy risk factors as OYL outcomes exceed all standard care across all four lifestyle risks. Despite COVID-19, the service remained adaptable with ongoing success during service reconfiguration. OYL also focused on local relationships making solid links with other organisations in Lincolnshire. OYL created a much more integrated offer for the clients, increasing the likelihood of better outcomes.

# Chapter 1 Introduction

### Background

Globally, non-communicable diseases (NCDs) are predominantly driven by unhealthy lifestyles. Environmental factors account for 71% of deaths yearly (WHO, 2021). Tobacco accounts for more than 7.2 million deaths yearly, and 4.1 million deaths have been attributed to excess salt/sodium intake. More than half of the 3.3 million annual deaths attributable to alcohol use are from NCDs, including cancer, *and* 1.6 million deaths annually can be attributed to insufficient physical activity (Forouzanfar et al., 2016). Common unhealthy behaviours, such as tobacco use, physical inactivity, an unhealthy diet, and the harmful use of alcohol, significantly increase a person's risk of diseases. Illnesses such as obesity, coronary heart disease, and stroke are more likely, increasing the risk of reduced quality of life and premature death. According to Evans and Buck (2018), approximately 70% of adults in the UK have two or more risk factors. Around 40% of the UK's disability-adjusted life years are attributable to tobacco, alcohol consumption, or being physically inactive (Newton et al., 2015).

This RE-AIM evaluation was commissioned in response to a call by Lincolnshire County Council (LCC) and Thrive Tribe, a healthy lifestyle service provider contracted by LCC to deliver One You Lincolnshire (24/01/2020 – tender released). The call sought to evaluate Lincolnshire's integrated healthy lifestyle service and develop an active research methodology to evaluate the impact and outcomes. This study was subsequently commissioned to explore the impact of addressing multiple unhealthy behaviours in individuals in Lincolnshire.

As section 1 (1) of the Care Act states, **care of local authorities must promote the integration of care and promote quality in the provision of services** (Care Act, 2014). As such, Lincolnshire County Council has commissioned One You Lincolnshire to provide an integrated care system at a local level. This evaluation of One You Lincolnshire started in July 2020 and was completed in July 2022. A team of researchers at the University of Lincoln, led by Professor Ros Kane, conducted the evaluation. Ethics approval was obtained from the Health Regulation Authority on the 22nd of December 2020 (Appendix A).

### **Research Objectives**

This study explored the implementation, quality, and impact of addressing multiple unhealthy behaviours for individuals in Lincolnshire through One You Lincolnshire (OYL). The study objectives were to:

- Identify critical components of good practice of the client pathway, considering views from clients, programme staff, healthy lifestyle service subcontractors, and referral teams that capture vital barriers and facilitators of OYL service implementation and delivery.
- Identify access and acceptability of the service provision within client subpopulations against local population demographics.
- Assess baseline effectiveness of OYL, exploring variables that moderate outcomes such as client, provider, and programme factors compared to service targets and external benchmarks
- We explore the costs associated with delivering OYL in person and service reconfiguration.
- Develop clear recommendations for real-world settings suitable and amendable for service improvement of OYL
- Contribute to the growing body of evidence on the impact of integrated lifestyle service delivery and future quality assurance of service outcomes

### **Report Structure**

In the rest of this chapter, we outline the UK's policy context for integrated lifestyle services. The background includes information on unhealthy lifestyle factors in England and the development of integrated services to **"Make Every Contact Count"** against increasing pressure on primary care services. The current report is reserved for stakeholders involved in the development, delivery, and management of One You Lincolnshire and a wider audience interested in delivering integrated lifestyle services in community settings. The report, thus, assumes a certain level of knowledge and understanding of lifestyle services and behavioural change models.

**Chapter 2** outlines why we used a RE-AIM evaluation approach and applied the principles to evaluating integrated lifestyle services.

**Chapter 3** reports the findings of the qualitative interviews and focus groups of One You Lincolnshire. This chapter explores how integrated care was implemented and the perceptions of the barriers and facilitators from participants.

**Chapter 4** reports the findings of outcomes for clients using One You Lincolnshire datasets to provide quantitative evidence outputs such as quit smoking and weight loss rates.

**Chapter 5** reports the economic evaluation findings that explore the effectiveness and costeffectiveness of integrated care compared with standard lifestyle services.

**Chapter 6** triangulates the evidence generated across the qualitative and quantitative data. We present the findings of this RE-AIM evaluation of the complex factors that decisionmakers must consider ensuring quality and effective integrated care for people in Lincolnshire.

### **Integrated Care**

Integrated care is a complicated phenomenon covering many frameworks and delivery processes. According to Kodner and Spreeuwenberg (2002), integrated care can be defined as a "coherent set of products and services delivered by collaborating local and regional health care agencies". In the UK, integrated care is often interpreted as removing traditional divisions between hospitals and family doctors, physical and mental health, and NHS and council services.

The primary focus of this evaluation is on **"integrated lifestyle services"** (ILS), a term used to capture integrated care in the context of unhealthy risk factor interventions such as

smoking cessation, weight management, healthy eating, physical activity, and alcohol reduction. ILS are often not-for-profit private organisations commissioned by local authorities, which connect local health behaviour providers with primary care services through a single access point. This service model is becoming common as local authorities move towards a preventive, community service approach. Between 2017 and 2019, 14 ILSs were formed across England, increasing to 42 by the time of this study (NHS Digital, 2022).

### Multiple unhealthy risk factors

In this report, the term **"multiple unhealthy risk factors"** refers to a simultaneous combination of risk factors (behavioural) that impact individuals and pose a health risk (Evans and Buck, 2018). Research on multiple risk factors has been a focus of public health for over a decade, with compelling evidence suggesting that poor diet, physical inactivity, excessive alcohol consumption and smoking are linked to ill health. After following a cohort for 11 years, Khaw et al. (2008) showed that an individual with four risk factors had a fourfold risk of dying compared with someone who ate well and was active and did not smoke or drink to excess (Figure 1).



#### Figure 1. Why multiple unhealthy risk factors matter

Adapted from King's Fund. Relative all-cause mortality risk shown applied after an average 11-year follow up in a cohort of adults aged 45-79.

Likewise, individuals from lower socio-economic groups risk having three or four simultaneous behavioural risk factors. In 2018, the King's Fund published a report on multiple unhealthy risk factors. The report identified that although the prevalence of risk factors has been declining among adults in England since 2003, reductions were much more likely to come from higher socio-economic groups (Evans and Buck, 2018). Therefore, lifestyle services must be cognisant of the social determinants underpinning population risk factors and barriers such as financial inequality that may impact accessibility and availability of interventions. The report highlights the research knowledge gap and the need to consider essential questions such as - is it better to attempt a behaviour change simultaneously or sequentially?

#### One You Lincolnshire

In June 2019, Lincolnshire County Council commissioned Thrive Tribe to deliver an integrated lifestyle support service, focussing on providing high-quality and accessible information and direct support to adults in Lincolnshire. The commission included helping residents adopt and maintain healthier lifestyles, focusing on the four behaviours that have the most significant impact on health and wellbeing: smoking tobacco, physical inactivity, obesity (food, nutrition, and a healthy weight), and excess alcohol consumption.

#### Local Context

It is estimated that the potential target size for One You Lincolnshire is almost 60,000 eligible adults. Lincolnshire has a smoking prevalence rate higher than the national average of 15.3% (Office for Health Improvement and Disparities, 2021a). The Office for Health Improvement and Disparities (2021a) reported the percentage of adults in Lincolnshire classified as overweight or obese (BMI of over 25 and 30) as 67.6%, worse than the national average of 63.5%.

There have also been efforts to encourage physical activity in the population, with 26.5% of adults categorised as inactive (Office for Health Improvement and Disparities, 2021c).

### Page 81

Additionally, 20.4% of adults drink more than 14 units of alcohol a week in the county (Office for Health Improvement and Disparities, 2021b). Therefore, Thrive Tribe implemented OYL as an ILS to promote sustainable lifestyle changes. The service provides access to stop smoking services and extended brief interventions for alcohol, diet and nutrition, and physical activity through tier 1 and tier 2 support.

#### **Theory of Change**

One You Lincolnshire service design used the COM-B model, which focuses on working through individuals' capability, opportunity, and motivation to change (Michie et al., 2011). COM-B is a valuable framework since it helps connect behaviour change to the broader determinants of health, as shown in Figure 2.
#### Figure 2. The COM-B Model of Change

#### The COM-B Model

A fundamental model of change used is the Capability, Opportunity, Motivation, Behaviour Model (COM-B) to identify what needs to change to be effective for a behaviour change intervention. COM-B identifies factors that need to be present for any behaviour to occur capability, opportunity, and motivation, which interact over time so that behaviour can be seen as part of a dynamic system of change (West and Michie).



#### **Client Care Pathway**

One You Lincolnshire provides service to eligible individuals for up to 12 months to support them in achieving their health outcomes via health information, signposting, goal setting, action planning, and support tailored to the client's needs (Figure 3).



Figure 3. One You Lincolnshire Client Pathway

#### Eligibility

All clients using the service are adults 18 years old and over who have been identified as having an at-risk status and one or more unhealthy behaviour (OHID, 2021). One You Lincolnshire eligibility criteria are:

- People with long-term health conditions made worse by unhealthy behaviours, including obesity (BMI of 30 or above/ 27.5 or above for Black, Asian, and Minority Ethnic clients), diabetes, cardiovascular disease risk, liver disease, musculoskeletal conditions, osteoporosis, coronary heart disease and respiratory diseases.
- II. At-risk adults who may have undertaken NHS Health Check for Cardiovascular Disease Prevention or received a Q-Risk score of >10%, enabling the primary care staff to refer them directly to the ILS.
- III. People engaged with the NHS's health optimisation about the future need for support for smoking cessation and weight management before surgery.
- IV. Carers in Lincolnshire who may be obese with a BMI of 30 or above, smoke, drink to excess or are inactive.
- V. Individuals 12 years and over who smoke and are seeking help to stop smoking, including pregnant women, and their partners.

## The Impact of COVID-19

This study occurred during COVID-19. The pandemic led to a national lockdown and restrictions between March 2020 and December 2021. Restrictions included a ban on non-essential travel, working from home measures, closing of schools and non-essential shops and social distancing. As the pandemic progressed, lifestyle factors, including obesity and smoking, were correlated with an increased risk of COVID-19 severe illness or related death. At the time of this study, the number of deaths due to COVID-19 was more than 100,000 in the UK (ONS, 2022).

In March 2021, the Department of Health and Social Care released a policy paper, "COVID-19 mental health and wellbeing recovery action plan", which aimed to prevent, mitigate, and respond to the health impacts of the pandemic from 2021 to 2022. The policy outlined the government's proposed Health and Care Bill, which aimed to help local health and care systems deliver higher quality care to their communities by putting integrated care systems on a statutory basis. Additionally, the Department for Digital, Culture, Media and Sport supported Sport England in the implementation of its new 10-year strategy, which focuses on the recovery and reinvention of the sport and physical activity sector from COVID-19, as well as bringing communities together through sport and physical activity.

# Chapter 2 RE-AIM Evaluation

# **Overview of RE-AIM evaluation approach**

This evaluation uses the RE-AIM model, developed in 1999 in response to a need for a framework to evaluate public health interventions (Holtrop et al., 2018). The RE-AIM framework was first produced to help evaluators balance internal and external validity when developing, testing, and implementing interventions. The framework's goal is to help maintain programme sustainability in community settings. The RE-AIM dimensions' constitutive definitions are straightforward and appealing to community and clinical organisations (Glasgow et al., 2019).

# **RE-AIM Principles**

In their introduction of the framework, Glasgow et al. (2019) argued that, while reach and efficacy might define the impact of a programme, extra attention should be directed towards the adoption, implementation, and maintenance dimensions (Table 1).

# Table 1. RE-AIM dimensions used in this evaluation and the scope of each dimension

RE-AIM Dimensions	Definition
Reach	<ul> <li>WHO is intended to benefit and who participates or is exposed to the intervention?</li> </ul>
Effectiveness	• WHAT are the most important benefits you are trying to achieve and what is the likelihood of negative outcomes?
Adoption	• WHERE is the programme or policy applied and WHO applied it?
Implementation	• HOW consistently is the programme or policy delivered, HOW will it be adapted, HOW much will it cost, and WHY will the results come about?

#### Maintenance

WHEN will the initiative become operational; how long will it be sustained (Setting level); and how long are the results sustained (Individual level)?

The **Reach** element refers to the number of individuals participating in an intervention, including characteristics like age, ethnicity, and rurality. **Effectiveness** is the impact of an intervention on important outcomes and includes adverse effects, quality of life, and economic outcomes. **Adoption** is the absolute number, proportion, and representativeness of settings and intervention agents who start a programme. **Implementation** refers to the intervention agents' fidelity to and adaptations of intervention and associated implementation strategies, including the consistency of delivery as intended and the time and costs. **Maintenance** is the extent to which a programme becomes routine. Within the **RE**-AIM framework, maintenance also applies at the individual level and has been defined as the long-term effects of a programme's outcomes (Kwan et al., 2019).

## **Application to research**

One benefit of the RE-AIM framework is that it provides a valuable starting point for determining the public health impact of interventions: **Reach**, captures a given population who participates in a programme and describes their characteristics. **Effectiveness** shows the positive and negative outcomes of the programme. **Adoption** defines the percentage of settings that agree to take part in the programme. **Implementation** indicates if a programme is delivered as intended and its cost; and **Maintenance**, at the individual level, reflects the maintenance of the primary outcomes (Sweet et al., 2014).

RE-AIM challenges researchers to ask questions about complex issues before, during, and after implementing a programme in real-world settings. Among the many RE-AIM strengths are its robust structure and pragmatism, facilitating broad use across settings, populations, and interventions (Harden et al., 2018). Also, the framework supported an agile approach to service improvement. The research team identified areas for improvement during the study, so OYL could be responsive and adapt the service for immediate improvements. A two-year evaluation enabled insights into One You Lincolnshire's implementation and client

engagement. Each RE-AIM outcome measure used in the study is defined below in Figure 4.

#### Figure 4. Components of the RE-AIM framework in the context of One You

#### Lincolnshire



# Chapter 3 Interviews and Focus Groups

## **Overview**

This chapter explored the perspectives of clients, staff and stakeholders in qualitative interviews and focus groups. The methodology used in the research is outlined, and the fieldwork's research design and aim. The results highlighted the impact of the OYL on clients' outcomes and barriers and facilitators to service delivery.

# Methodology

#### **Research Design**

The study collected qualitative data from January to June 2021. To capture the views of a diverse range of clients, the research team conducted a pre-interview survey to assess the type of support and demographic of potential interviewees. An online survey was designed and delivered using Qualtrics software and asked potential client participants about their demographics, referral routes to the service and pathways they used. The steering group piloted the survey, and changes were adopted where appropriate. All interviews and focus groups (telephone and TEAMS) were conducted using a semi-structured interview guide. Topic guides were developed with the steering group to ensure that questions followed the RE-AIM framework. The whole group reviewed the interview questions for question order and flow appropriateness. Thus, key stakeholders, staff, and clients were allowed to contribute to the interview and focus group guides on its design phase.

#### **Research Setting**

One You Lincolnshire operates in 17 areas across the county for face-to-face delivery. A range of interventions is available via online support and remote health coach sessions to all clients who cannot attend in-person support resulting in a complete county offer. Table 2 shows the various activities of each site delivery service.

# Table 2. One You Lincolnshire Programmes available at each site grouped by riskfactor.

		Lincoln	Grantham	Boston	Spalding	Skegness	Gainsborough	Stamford	Sleaford	Louth	Bourne	M Deeping	Mablethorpe	Horncastle	Holbeach	Ruskington	Long Sutton	Coningsby
	Health Coach Appointment	x	x	x	x	x	x	x	х	х	x	x	x	х	х	x	x	x
Ston	Specialist 1:1 Stop Smoking	х	х	x	x	x	х	х	х	х	х	х	х	х	х			
Stop	Stop Smoking in Primary Care*	х	х	x	x	х	х	х	х	х	x	х						
	28 Days Telephone Service	х	x	х	x	x	х	x	x	х	x	x	x	х	х	х	x	x
Move More	Specialist 1:1 Sessions with PA instructor*	x	x	x	x	x	х	x	x	x			x					
	Supervised Sessions in Leisure Centre*	x	X <sup>1</sup>	x	x	x	х	X1		x	x	X1	x	x				
	Group Sessions with PA instructor*	x	x	х	x	x	х	х	х	х	x	х	х					
	Get Healthy Get Active	х	x	х	x	x	х	х	х	х	x	х	х	х	x	x	x	x
	Lose Weight with OYL	х	х	х	x	х	х	х	х	х	x	х						
	MAN, V FAT Football*	x	х	х	x	x												
Eat Healthy	Gloji Online Gym	Х	х	х	х	Х	х	х	х	х	х	х	х	х	х	х	х	Х
	Slimming World/Weight Watchers*	x	x	x	x	x	х	x	x	x	x	x	x	х	x	x	x	x

	Our Path Digital Service	х	х	х	х	x	х	х	x	х	х	х	х	x	x	х	х	x
	Health Coach Session	х	x	х	х	x	х	х	x	х	х	x	х	x	x	х	х	x
Drink Less	One Year No Beer	х	x	х	x	x	х	х	x	х	x	х	х	x	x	х	х	x
	Alco-change	Х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х

\*Delivery model changed due to COVID-19

1 Did not return after COVID-19

#### Sampling and recruitment of participants

Between July 2019 and July 2020, OYL had 6,268 clients in its database. The service has eight Service Leads, with 33 Programme Staff ranging from Triage and Support Workers, Health Practitioners, Advisors, and Referral Generation Officers (Appendix B). The service also works with 175 subcontractors across Lincolnshire. Staff were contacted via the research team, and OYL's website and social media advertised a call for client participation. Participants could telephone or email the research team to express their interest. The staff also used a telephone script to advertise the study to clients already engaged in the service. The advertising material was developed collaboratively with OYL, client representatives and the research team. The sample of participants was monitored to ensure diversity such as gender, ethnicity, and carer status across the participation groups. Participation was voluntary, and the recruitment of participants used an opt-in method in line with GDPR (Data Protection Act, 2018).

#### Inclusion criteria and recruitment

Clients were recruited that met one of the eligibility criteria of the research as follows:

- Not deemed motivated following motivational interviewing
- Not deemed eligible following the health assessment
- Declined support
- Took up tiers 1 or 2 support
- Incomplete attendance or unsustained change
- Complete support and sustained change

Before the researcher made contact, clients were approached via recruitment flyers online and health coaches promoting the study. Interested clients were sent a study information sheet and asked to complete a pre-interview screening survey. The researcher explained that participation was voluntary, and participants could withdraw at any time or refuse to answer questions. Also, participation was anonymous, and no personal information would be shared with One You Lincolnshire. Informed consent was collected before interviews, and if they or someone else was at risk of harm, the interviewer would be obliged to take appropriate action. The participants also received a £10 voucher per interview for sharing their time and experience.

#### **Data collection**

Data collection occurred between February 2021 and June 2021 and involved qualitative interviews and focus groups with various participants. 53 participants took part in the study (Table 3). Participants who agreed to the study were given a detailed information sheet and a consent form before data collection. Participants were allowed to book an interview time with the researcher, and the interview was conducted via telephone or Microsoft TEAMS, as preferred by the participant. Only participants who provided informed consent and met the pre-interview screener were included. Participants had the right to revoke, decline, or withdraw consent during data collection. Consent forms (via Qualtrics) were completed before the interview/focus group and stored as PDFs on a secure cloud-based server. The interviews/focus groups were recorded, transcribed, and transcriptions were stored.

Individuals Interviewed	February- June 2021
Clients	24
OYL Staff	21
Health Professional	5
Stakeholders	3
Total	53

#### Table 3. The number of interviews completed by June 2021.

#### Topic guide

Topic guides were used to ensure a consistent approach to each interview. However, the topic guides were used flexibly, with open and non-leading phrasing to allow participants to give their accounts in their own words and describe their lived experiences. Staff focus groups concentrated on service delivery and implementation, whilst client interviews focused on the perceptions of the service and perceived impact. The interviews and focus groups ranged from 30 to 120 minutes in length.

#### Ethics

This study was defined as research and obtained Health Regulation Approval (Project IRAS ID 289313) on the 22nd of December 2020 (Appendix A). A steering committee was established and met every 3 months to ensure all the study's practical details were consistently progressing and working well. The study has also been adopted onto the NIHR portfolio (ID 289313).

#### Analysis

The research team inductively analysed the transcripts using the principles of thematic analysis (TA) proposed by Braun and Clarke (2006). Researchers explored participants lived experiences as situated within a broader socio-cultural context of their health. The research assistant set up a coding log to ensure all data and recruitment files conformed to requirements of anonymity. All interviews were recorded verbatim and transcribed, except one interview conducted over email. Each transcript was reviewed and coded by the original interviewer.

An iterative data analysis process involved all research team members through periodic team meetings where differences in interpretation were discussed. NVivo software (Version 10) facilitated analysis. The qualitative data were thematically analysed, with the codes summarised. A coding frame was developed based upon early rounds of interviews and refined by the research team until an agreed structured/hierarchical coding frame was developed. Summaries of significant findings were generated to identify recurrent themes and compare and contrast findings. The team was careful to consider outlier data, divergent accounts and issues, and commonalities to identify critical themes for the study.

## Results

#### **Characteristics of Clients**

Twenty-eight responses were recorded, with 24 agreeing to a follow-up interview (Table 4). Most respondents were female (75%), reported their ethnicity as White British (93%) and living with a long-term health condition (82%). A quarter of participants had friends and family support, while 14% had caring responsibilities. However, most participants did not have caring responsibilities (57%). Self-referral was the most common route into the service (39%), followed by GP referrals (36%). Some participants were referred to via social media, word of mouth and work referrals.

Most participants completed their assessment over the phone with the OYL triage team. Once assessed, most participants were offered tier 1 online information support *and* access to tier 2 health coach support (46%). 21% were offered only tier 1 support and 25% only used a health coach for support. Healthy eating was the most common pathway participants engaged with (71%). 46% engaged with a physical activity programme. Smoking cessation and alcohol reduction support were each used by 21% of the participants. Most participants engaged in more than one type of support. 57% signed up for two programmes, often healthy eating, and physical activity. One participant did get referred to three lifestyle programmes. Whilst the remaining 39% of participants engaged in only one lifestyle programme.

Finally, most participants were working towards their goals during the study. A small percentage did not achieve or maintain their changes in the study (4%). 36% of participants indicated that they had maintained their changes. However, when interviewed, some had no longer maintained their changes, suggesting some discrepancies between the screener questions and the follow-up interviews.

# Table 4. Characteristics of clients from pre-interview survey n % 19

Gender	Female	21	(75%)
Gender	Male	7	(25%)
Ethnicity	White British	26	(93%)
Lunneity	Non-White British*	2	(7%)
Living with a Long-	Yes	23	(82%)
Term Health	No	4	(14%)
Condition	Preferred not to answer	1	(4%)
	Had friends or family support them	7	(25%)
	Had caring responsibilities	4	(14%)
Carer Status	Had friends or family support them AND had	1	(40/)
	caring responsibilities	I	(4%)
	Did not have caring responsibilities	16	(57%)
	Self-Referral	11	(39%)
Referral Route	Via GP	10	(36%)
	Other Route	7	(25%)
	In Person	3	(11%)
Assessment	Via Website	5	(18%)
Process	Via Phone	19	(68%)
	Other Route	1	(4%)
	Tier 1 Support Only	6	(21%)
Level of Support	Tier 2 Support Only	7	(25%)
	Both Tier 1 and Tier 2 Support	13	(46%)
	Did not know	2	(7%)
	Healthy Eating	20	(71%)
Type of Support	Increasing Exercise	13	(46%)
Used**	Reducing Alcohol Consumption	6	(21%)
	Stop Smoking	6	(21%)
Used Integrated	One Programme Only	11	(39%)
Care Support	Two Programmes	16	(57%)
Care Support	Three Programmes	1	(4%)
Maintenance of	Maintained changes	10	(36%)
Lifestyle Changes	Currently working on changes	16	(57%)
	Did not maintain changes	1	(4%)

 Did not achieve changes
 1
 (4%)

 \*Due to the small sample size (n=28), some data were aggregated to ensure anonymity.

 \*\*Percentages equal >100 as participants could select multiple responses.

## Eligibility, Referrals, and Demand

#### Lesson 1: Impact of COVID-19 on eligibility, referrals, and demand

#### Change to client eligibility

A pivotal change to the delivery model of OYL was widening the eligibility criteria for clients. OYL commissioning documents stated that a long-term health condition was an essential requirement. However, the need for a pre-existing condition was removed from March 2020, and access was widened via self-referral routes. The change saw a perceived "bigger impact on the county", as well as fewer referrals from older populations.

#### **Reduced GP referrals**

COVID-19 reduced GP referrals because of pressure on primary care centres to divert resources to covid-related care. As such, GP services interacted less with the general population as restrictions prevented patients from attending centres in person. GPs had fewer opportunities to provide OYL leaflets or refer patients. As such, GPs gave patients OYL's phone numbers to the clients, then expected the client would self-refer.

#### Increased service demand

Despite the reduction in GP referrals, the demand for OYL increased during the pandemic. OYL staff correlated increased demand as a knock-on effect of widening the eligibility criteria. However, the demand for the service was seen in less deprived areas. As the pandemic progressed, some clients' rationale for accessing the service was a response to smoking and obesity being correlated with poorer health outcomes if infected with COVID-19. Some clients viewed the service as a preventive measure to improve their health in case of a COVID infection. Thus, increased demand for the service resulted in some delays in referrals for clients, with staff mentioning it took "5–10 days" to get people triaged.

#### Lesson 2: Accessibility and inclusion of the service

#### **Targeted client groups**

An essential contract requirement of OYL was 50% of clients to be from 30% of the most deprived LSOAs. In Lincolnshire, coastal sites had higher deprivation levels than other areas. OYL staff noted higher inequalities and unemployment rates in sites such as Mablethorpe. Staff saw clients more likely to binge drink and suffer from alcohol addictions in areas with high unemployment rates. In contrast, clients using alcohol support were in full-time employment. Therefore, social determinants were a critical factor in the level of support provided for an individual.

#### **Appropriate referrals**

Multiple interviews with staff and stakeholders highlighted the concept of an 'appropriate' referral. The idea of **"getting the right ones"** with the **"right mindset"** was a central identifier of clients being referred and triaged into the service. Determining a client's motivation is crucial to successful health outcomes. Also, there was a sense that GP definitions of 'appropriate' may have differed from OYL's definition. For example, an external smoking cessation partner explained that **"if you are a smoker, the [GP] will say you should give up smoking**". Although correct, staff argued that the referral was not always appropriate at the time. Health professionals referred clients who they **"[did not] know what else to do "**. Therefore, GP identification of a client was based only on lifestyle requirements. As noted in the COM-B model, being a smoker may not have included a person's motivation to engage in a behaviour change (Figure 2).

#### **Barriers for male clients**

The demographics of the service across pathways varied but had an average client demographic. Most clients were White British women with underlying health conditions. Such as **"asthma and high blood pressure, osteoarthritis "**. The staff highlighted those pathways such as weight management had a higher proportion of women than other

pathways. Likewise, this study had more female participants than men, reflecting the service demographic. OYL staff were aware of the gender disparity in the service with a **"real priority to try to work out how [to] engage men"**.

The staff mentioned that engaging men in preventive care was difficult across the sector. Often men **"do not engage until the last minute"** to seek care, making engagement in preventive care more challenging for male clients. Consequently, the staff noted that men were more likely to be referred to through GP health checks than self-refer. Both staff and client participants noted that some males felt uncomfortable accessing the service. Some men feared **"admitting that they have got things wrong or want to explore things that scared them"**. Once referred, some men's expectations of weight loss services were gendered. Programmes such as Slimming World were assumed to cater to women and were **"like a women's meetings for women to catch up"**.

#### Lesson 3: Factors impacting hesitancy in referrals

#### Alcohol support hesitancy

Triage staff noted limited referrals to the Drink Less pathway, with "few and far between compared to the other pathways". A key challenge of the Drink Less pathway is identifying who should be referred. GPs spoke about how drinking habits "don't come up" when talking to patients, making it difficult to approach the topic. Similarly, OYL staff noted that the promotion of alcohol brief interventions in primary care was limited - "how many people walk into a GP surgery and that conversation happens '[are you] drinking 18–20 units per week?".

Furthermore, OYL staff discussed the expectations and understanding of the pathway. The "Drink Less pathway has connotations of people drinking too much" for health professionals and clients. Clients and referrers often viewed the pathway as alcohol dependency support rather than a brief intervention "looking at people reducing" their alcohol consumption. As a result, alcohol support health coaches noted "an added layer of stigma and stereotyping" associated with the pathway. Also, OYL staff highlighted those clients had limited awareness of the impact of alcohol consumption, creating another barrier to accessing the service. For example, potential clients often do not acknowledge drinking when stressed. Health coach leads commented how for individuals who drank over the guidelines of 14 units a week, which was the target group for the pathway, potential clients did not always view excess alcohol consumption as a risk factor that required intervention, with the rhetoric **"Is that an issue?"**. However, some staff spoke about a phenomenon known as the common-sense barrier. A critical challenge - **"people know the alcohol is bad for them, they do not need to be told, and they can stop if they want to"**. Thus, the reasons for low referrals are multifaceted. Coaches suggested careful marketing to clarify the difference between treatment and brief advice as a key recommendation.

#### Lesson 4: Referral Pathways Routes

#### **Referrals across pathways**

Clients had various ways of referring to pathways. The most common route was selfreferrals to be triaged by OYL staff to the most appropriate pathways. However, many clients were referred to additional pathways once within the service. Referrals across pathways were a unique feature of the integrated care service. Clients had a single-entry point, as **"many [clients] come through for one pathway, could end up going to two or three"**.

One pathway that benefitted from cross-pathway referrals was the Drink Less programme. Health coaches recognised that clients were not entering the service to reduce drinking. So, pathways such as Healthy Eating were able to highlight that "alcohol played more of a part than [clients] realised". Weight management coaches commented that a part of their role was educating clients on the calories in alcohol. For example, one coach explained, "there are 600 calories per bottle of wine. So, we are picking [excess drinking] up in different ways". Also, publicised and known services such as Slimming World and Weight Watchers were vital marketing tools. Triage staff stated, "quite a lot of ladies might have heard of Slimming World or Weight Watchers". Potential clients were also offered OYL services, resulting in a wider variety of support to access. Nevertheless, some clients were unaware of access to all pathways through One You Lincolnshire. Staff found that some clients referred via a health professional "did not even realise that [OYL] are multiple pathway agencies".

#### GP understanding of referrals

GPs had a trusted role within OYL as they referred many clients to the service. However, interviews with GPs and OYL staff revealed that access to the service for clients had challenges. GPs revealed limited understanding of the service and the support on offer. For example, some GPs believed they "could not refer to the exercise [pathway]". OYL staff reiterated that "ManVFat Football, and Lose Weight [with OYL], were not known that well to GP's". Therefore, GPs did seem to have a gap in knowledge of the OYL service model. Some GPs acknowledged forgetting what OYL offered. Instead, GPs would, "refer to the Addaction" for alcohol support. When explored further, OYL staff mentioned the limited time GPs had to learn about the service. One OYL staff member concluded, "you get time to say it is a male weight management programme. It's framed around football, and there are leagues and there are 14 weeks, and it's free, and there's about a 95% success rate to weight loss". A short time to explain the service seemed to result in GPs having a brief understanding of the complete service.

#### **Referrals via Secondary Care**

Secondary care clinics were also part of the referral route. Referrals via hospitals were "usually to stop smoking or drinking. Depending on what [clients] had been in hospital for". Secondary care referrals were viewed as more complex than primary care referral routes. Secondary care staff had a different referral form to primary care teams as the forms listed "every single pathway". Primary care referrals relied on the OYL triage team to navigate which pathways were most appropriate for a client. In contrast, secondary care staff were "presented with a very long list of pathways". Referring to OYL through secondary care was seen as more laborious and thus less likely to be used. To help identify clients awaiting treatments that required lifestyle changes before operations, OYL staff suggested implementing a "priority email account " for "urgent referrals".

# **Client Motivation, Commitment and Outcomes**

#### Lesson 1: The importance of client motivation

#### Motivation as a facilitator to behaviour change

Health coaches discussed the importance of the first meeting with a client to set the tone of the service. Coaches would ask questions such as, "- Tell me about what has motivated you to want to change". Coaches viewed motivation as core to behaviour change. One coach stated, "unless [clients] have intrinsic motivation to change, you help them foster that, it's very unlikely that they're actually going to do it". Thus, partners and OYL staff viewed a client's motivation as insightful information. It became a foundation for a client's values for coaches to deliver support aligned with the client's motivations. For example, many clients mentioned COVID-19 as a motivator. The impact of bereavement and "having a similar health condition" were identified as reasons for seeking support. Clients described the realisation of "living quite an unhealthy lifestyle" as a desire to change their lifestyle.

Coaches, in turn, understood a client's value as wanting to reduce their risk of COVID-19 morbidity as a central motivating factor. Health coaches viewed motivation as active and dynamic, which could be encouraged and strengthened throughout a client's journey. However, for some clients, the pandemic was a demotivator to change. Triage staff mentioned how clients that did not take up support "diverted their emotional resources into coping". As such, coping mechanisms were prioritised during lockdown measures. "Resources that [clients] otherwise would have put towards moving forward to the cycle of change" were used to cope. Thus, client motivation was individual and required personalised support from health coaches.

# Quality Assurance, Fidelity, and Partner Relationships

#### Lesson 1: Quality Assurance

#### Local service ownership and quality champions

Commissioners wanted Thrive Tribe to deliver OYL within the local context to the population. Thrive Tribe leadership was keen to establish local ownership of the service for staff and local partners. Quality champions encouraged staff to embed quality protocols within the service using self-reflection. For quality champions, the role was a voluntary position. A local staff member's duties were to "support with things like audits" and "support on handling complaints and incidents". Quality champions ensured "people were automatically doing that quality assurance themselves, rather than just being an external person that just parachutes in".

Leadership wanted to create a national network of quality champions from different service sites. The champions could then share good practices across Thrive Tribe commissioning service. Thrive Tribe leadership believed that quality assurance as a local agenda encouraged staff to "get more engaged". Coaches were encouraged to "feel a bit more empowered to drive any changes" and "feel more part of the whole quality improvement agenda". As such, most staff responded to the decision to local ownership as "really wanting the service to work". Thus, staff often viewed quality as decentralised and both leadership and staff responsibility.

#### Staff Training and continual development

OYL had mandatory staff training to engage with clients and deliver programmes. Mandated training was outlined in centralised Thrive Tribe guidelines and service specifications. Most client-facing staff were required to have **"behaviour change levels one and two"** at recruitment. Pathway leads were then required to have extra training. The training helped leads handle complex caseloads through mental health first aid training. At the time of data

## Page 103

collection, Thrive Tribe had rolled out mental health first aid training for all staff. Also, the culture set by leadership encouraged continual learning and development for staff. The staff mentioned that "[there is] always something you can improve on no matter how experienced you are or learn a different way of doing something".

At a local level, each pathway had working groups. The groups shared lessons learned, service challenges and good practices among staff. As well as **"an opportunity to talk with like-minded people"**. Staff felt the groups helped to **"just spark ideas, and enthusiasm, and help people not reinvent the wheel"**. Staff held monthly multidisciplinary meetings alongside intra-pathway groups. The cross-pathway groups were aimed to show that **"staff can learn across the disciplines"**. Groups across the pathway reinforced the integrated nature of the service delivery model.

#### Lesson 2: Impact of previous service models

#### **Commitment from GPs**

Both external partners and OYL staff spoke of OYL service delivery with previous models of care. One key challenge was engaging with GP clinics. External partners stated that GP buy-in for referrals had been difficult before OYL. One reason for poor engagement was **"some huge priorities with surgeries"**. For example, **"CQC inspections have not gone well, or they are having to merge with another surgery. Some fairly hefty managerial things going on"**. OYL referral generation staff had dedicated considerable time to rapport building with GPs. As such, GP engagement has improved since the service launch. External providers saw that **"One You LincoInshire's actual relationship with the GPs had improved"**. As a result, GPs had increased **"buy in, and commitment"**. Partners viewed OYL as **"being that sort of interim"** between providers and GP clinics. A vital connection for the service delivery model.

#### Lesson 3: Relationship with external partners

#### **Contracted partners**

One You Lincolnshire had multiple external partners contracted to deliver various client programmes. Partner organisations varied in size of operation, modality, and site location. Partners perceived OYL as a positive relationship. For example, there was a perception that **"they have got a good team"** amongst partners. Partners highlighted effective leadership and consistent communication as positive factors. Many partners stated the importance of good working relationships. Relationships were viewed as fundamental to the success of an integrated service. One partner mentioned, **"If there's going to be an ongoing relationship of any kind, it needs to be reciprocal"**.

Both OYL and partner organisations were responsible for ensuring an ongoing working relationship. OYL was viewed as having strong leadership and "just a – Can do organisation. Right from the top". OYL was viewed as a competent provider, and partners felt OYL was "very well experienced". The experience came from OYL running "integrated health services for several different authorities". External partners valued "the ability to have somebody else that was putting the referrals through". Many partners had found referrals from primary care services difficult. One partner stated, "sometimes it was tricky to arrange meetings with the GP". Also, partners viewed OYL as accessible with consistent communication. For example, OYL spoke to partners "pretty much on a daily basis by email", which built trust and rapport. In contrast, some smaller partners did want increased technical support from OYL. Some partners struggled using online 365 portals during the pandemic. However, these partners acknowledged that low digital literacy within their team affected aptitude.

# Staff capacity and post-COVID service delivery

Lesson 1: External Staff Capacity

#### Administration Tasks

A critical administration task for partners was data sharing of referral rates, clients' progress, and outcomes. OYL collected data to a centralised database that could be used to compare against commissioning targets. Each partner had varying staff capacity to complete the administrative tasks required for each client. Some external staff felt **"a lot of time could be wasted"** filling out client data. Staff preferred to be **"seeing people"** and external staff had limited buy-in on the importance of the administrative tasks. Tasks were viewed as **"time-consuming"** and difficult for coaches to complete alongside daily responsibilities. Some partners adapted to limited capacity by implementing a separate triage role within their service. The new role could then carry out administration tasks on behalf of coaches. These organisations seemed to view administration tasks more positively and valued data collection. Thus, consistent data sharing seemed to correlate to whether a task was viewed as beneficial or time-wasting.

#### Lesson 2: COVID-19 changes to service delivery

#### Transition to digital delivery

Six months into OYL implementation, the UK entered lockdown due to the COVID-19 pandemic. Many pathways established as in-person had to transition into online and digitalbased operations. OYL leadership stated that a change to service delivery was a significant implementation task. Staff felt **"overwhelmed"**, and the transition was **"challenging"**. A critical pathway that COVID-19 affected was Get Healthy Get Active. Pathway leads spoke about the struggle with transitioning sessions into a digital intervention. Yet, leads still wanted to ensure communities were connected to the service across various demographics. Staff reflected on the initial challenges being overcome. As the pandemic progressed, digital resources and tools were better understood. Coaches were able to put in place good practices across programmes, for example implementing bookable systems for clients to access interventions in advance.

#### Pauses to client progress

Most OYL pathways adapted to online delivery to ensure clients continued using the service. Yet, some clients' progress was interrupted. Coaches mentioned that some clients

who accessed the service "hadn't completed". Staff acknowledged that some clients did not want to continue support using online services. Clients who were less likely to continue using the services were often on the Get Healthy Get Active pathway. Clients did "not want to come back into a gym" despite online interventions being available. However, staff highlighted, that "most of the people on the scheme so far who haven't completed yet, were quite eager to come back".

# **Client Case Studies**

#### Face-to-Face Support

Sam is a White British man with a long-term health condition. His GP referred him to One You Lincolnshire. He was then assessed in person and decided to take up the Stop Smoking pathway with the help of a health coach. Sam also had caring responsibilities for his wife.

The main reason I wanted to stop smoking was the financial implications. If I was to say I smoked four packets of cigarettes a week, I wouldn't be far off the road. Well, it's anywhere between £36 and £45 a week, and you times that by 52 weeks, and you're on your way to £2000. Last year, I told myself I would stop, as the GP kept pestering me via text. I kept the previous text and thought, well, I'll take it. I've got nothing to lose.

I was going a little bit before we were even talking of lockdown. I would have been happier to have carried on face-to-face. One thing to improve is I didn't know where this clinic was. I worked to find this place. One You Lincolnshire needs to be more precise on where they actually are.

I said I wanted to stop smoking but didn't like the patches. The health coach explained how it works. And then, when I got my first lot of tablets, I had to pinpoint I would stop that day. The health coach said, 'it is your choice,' which is vital. I know what I've been doing for the last 45 years is an addiction. The health coach didn't look down on me or talk down. She was no high and mighty person. *There was none of this clinical type. All it was, we were having a cup of tea together and talking.* 

The health coach played a significant part. I celebrated one year. It hasn't been as hard as I thought it would be, and I could get back in touch with them if there was an issue. Not stopping smoking for a year helped my lungs, and I won't put a burden on the NHS or anybody else.

#### **Online Support**

Sarah is a white British woman with a long-term health condition. The cardio rehabilitation clinic referred her to One You Lincolnshire. The triage team assessed her over the phone, and she decided to take up group support for Healthy Eating. Sarah also has carer support from family and friends.

Five years ago, I was very ill, and it turned out that it was heart problems. Gyms didn't understand some of the issues alongside heart problems. For the cardiac people, I said how miserable I felt because I'd gone from walking and doing all sorts to none. So, the clinician put me through the service, saying, "I could refer you to this One You Lincolnshire". I thought, 'this is an approved programme'. I needed to lose weight, but I needed some support because of this constant uncertainty about whether I should be pushing myself.

One You Lincolnshire contacted me and explained the course and how you had to commit to the 12 weeks. I could do a Wednesday morning, Thursday afternoon or whatever. I met my particular group on Thursday afternoon, from 1:30 PM to 2:30 PM, which is quite a long time. *I prefer doing a Zoom online to sitting in a room in* 

*the evening while they call out your weights.* The first hour was like other weight programmes. You went through it week by week as a topic, but the last half an hour was an exercise class. That was super because you were at home. All you had to do was create a bit of space, and I found it much more manageable.

About 10 or so people and the tutor could share the screen. The coaches encouraged people to join in the presentation, and there would be questions and little quizzes. They also encouraged people to share what had gone well during their week or how they felt. I had to make a weekly goal. That was good because it motivated you. You went through the balance between vegetables and fats, protein, and sugars. But it wasn't ever framed as "you must do this". The expectation was that you were on the programme. You want to make changes to your diet, and you are going to improve your fitness level.

One You Lincolnshire did send out little freebies. There was a measuring cup for portion size. They were smaller than anything on the food packets would suggest!

The health coach was excellent. I spoke to the health coach about this fear of what I can do. They were outstanding. In each class, the coach would say, these are the exercises. He would show you that you could do them sitting, or you could do them standing up. He tried to help you grade it and what it felt like to do moderate or vigorous exercise. It was a psychological acceptance that I could do it, and I felt more confident. I didn't make the total loss that One You Lincolnshire aimed for. But I can still access the online gym, and the health coach said he would call in three or six months to see how I am going.

#### **Integrated Support**

Anna is a White British woman with a long-term health condition. She self-referred to One You Lincolnshire, and the team assessed her over the phone. She decided to take up Slimming World, and her health coach offered the Increased Exercise pathway. Anna also had carer support from family and friends.

Since I've hurt my back and can't do much. I've gone from being very active, seeing many people, to my own four walls, 24 hours a day. It was a weblink my doctor gave me to sign up about getting some help with weight loss. I was with the pain clinic, and I was with them for 18 months. I kept telling them that I needed help and exercise. I pressed the link and then went online. I read about what One You Lincolnshire is and what they do and researched it a bit more. The website seemed to draw me in, making me think I needed them more. It could have been the point in my life I thought, 'I've got to do something.

I was really, really nervous that I had to get somebody to listen to me again. The healthcare staff told me my back problem was all in my head, and I didn't want to go down that road again. I had a couple of phone calls with a referral staff member who said, 'there are a couple of options they could do'. I did Slimming World before, so I knew how to do it. I got a free three-month trial, which gave me the push I needed. The health coach got me back into Slimming World, and I did a 12-week free course with them.

Then *the health coach got me in contact with another lovely lady in the One You Lincolnshire service.* She got me exercises and all catered for somebody with my lack of ability to do things. So, it's been fantastic. With One You Lincolnshire, it's all been over the telephone, but they've been constant. The health coaches have messaged me to see how things have been progressing. They've been so helpful, and they've listened. It's been nice to have somebody listen to what I need.

For somebody who's never actually seen me, and it's been over the telephone, it's been fantastic. It's been nice to have somebody else support me for what I need, boosting that it's me doing it. We need clarification that we're doing well. I'm exercising, and I'm feeling happier. The health coach always said she could hear the change in me, and I

couldn't have asked for a friendlier bunch of people to help me. One improvement to the service is, if you weren't very active, you could do a face-to-face rather than a phone call. To make sure you're doing the exercises correctly. At the end of the day, you don't want to hurt yourself while you're doing exercise.

I could only do the exercises over a few days when I started doing them, but I can do the exercise programme three times a week now. I can't say I'm more mobile because I'm not. But I went out yesterday, and I can walk a bit further than I would have been able to 18 months ago. My mood since losing weight and exercising more has improved.

Yes. I've still got the pain. But with a change of medication and losing weight, I can do more for myself. It's the motivational aspect they give you to actually want to do something about how you are. I've now come to terms with the fact that I will not be riding my bike again, but I know I can still do things. My broken body isn't going to stop me from enjoying life.

# Chapter 4 Secondary Data Analysis

# **Data Analysis Overview**

The aim of phase 2 was to provide quantitative evidence, and the analysis aimed to explore the accessibility, efficacy, and fidelity of the service. In this chapter, anonymised secondary data provided by One You Lincolnshire was used to explore the outcomes of each of the four pathways. Data was collected on client uptake, attendance, and completion across client demographics. Key outcomes were:

- Identify critical components of good practice of the client pathway, capturing the views from clients, programme staff, healthy lifestyle service subcontractors, and referral teams on barriers and facilitators of service implementation and delivery.
- Identify access within client subpopulations against local population demographics.
- Assess baseline effectiveness of OYL. Exploring variables that moderate outcomes such as client, provider, and programme factors compared to service targets and external benchmarks.

# **Methods**

#### **Data collection**

One You Lincolnshire collected demographic-identifying variables from 17 sites (Table 2). Anonymised data were transferred to the University of Lincoln team, and data were stored on Microsoft 365, and no files were downloaded before the team cleaned, processed, and analysed the data. Each site had data for demographics such as age, ethnicity, gender, long-term health conditions, LSOA, and pathways.

#### **Research Design and Analysis**

Statistical analysis was performed using SPSS software (v27). Service attendance and completion rates were expressed as frequencies and proportions. Descriptive statistics summarised session attendance as a proportion of total sessions offered/planned. The demographic characteristics of clients were summarised via descriptive statistics. Local population norms were interpreted to understand inequalities in service access and acceptability. A key performance indicator was the percentage of clients were from the most deprived areas. In line with the service target that 50% of clients were from the 30% of most deprived LSOAs. Service uses such as uptake, attendance and dropout were explored about client demographics. Then service-use indicators regressed to demographic factors. Before applying linear/non-linear models to the data. For effectiveness analysis, client outcomes were coded for attainment and enrolment.

#### Sample Size

Secondary data analysis was conducted for all available data. A census sampling approach was used, and the dataset size was sufficient for modelling purposes (Bell et al., 2008). The analytic approach produced stable, unbiased estimates with a sample of  $\geq$ 500 level-2 cases, and this criterion was met for all outcomes of interest. In total, 24,370 referrals nested within 16,354 clients nested within 128 coaches were included in the dataset for analysis.

#### **Outcome Measures**

Primary outcome analyses focused on self-reported health behavioural outcomes (Table 5). Focal outcomes varied by programme. The outcomes reflected target levels of behaviour for clinically meaningful improvement. Goal achievement indicators were defined as the following:

Smoking quit status at four weeks

- Alcohol intake reduced to less than 14 units per week or decreased by 50% or more
- Physical activity increased to 150 minutes or more of moderate activity per week
- 5% or more weight loss at 12 weeks

#### Table 5.Outcome variables and descriptions of codes

Outcome Variables	Coding Description
Smoking	Quit status at 4 weeks
Cessation	0 = Not achieved 1 = Achieved
Alcohol Reduction	Intake reduced to <14 units per week or decreased by $\geq$ 50% 0 = Not achieved 1 = Achieved
Physical Activation	Physical activity increased to ≥150mins moderate activity per week 0 = Not achieved 1 = Achieved
Weight Reduction	<u>≥5% weight loss at 12 weeks</u> 0 = Not achieved 1 = Achieved

#### **Secondary Outcomes**

Secondary outcomes were related to the following:

- Client uptake (0 = programme declined/did not start, 1 = programme commenced)
- Attendance (n of sessions attended, % of sessions attended [as a proportion of all sessions offered])
- Completion (0 = dropped out, 1 = programme completed) rates.

The analysis considered confounders such as client age, gender, ethnicity, socio-economic status, rural/urban, health status and disabilities (Table 6).

Table 6. Tertiary coach-level, secondary client level and primary level referralpredictor variables and descriptions of outcomes

Coach Level Variables	Coding Description					
Coach ID	Unique ID for coach (clustering variable) <sup>†</sup>					
Client Level Variables	Coding Description					
Client ID	Unique ID for client (clustering variable)					
Age	In Years					
Gender	0 = Female 1 = Male <sup>‡</sup>					
Ethnicity	0 = White British 1 = Ethnic minority					
Rurality	0 = Urban 1 = Rural					
Deprivation	0 = Not living in top-30% most deprived LSOAs					
	1 = Living in top-30% most deprived LSOAs					
Long-term health	0 = No LTHC 1 = LTHC					
condition (LTHC)						
Mental Health Condition	0 = No MHC 1 = MHC					
(MHC)						
Long-term sickness/	0 = Not long-term sick and/or unemployed					
disability/unemployment	1 = Long-term sick and/or unemployed					
Carer	0 = non-carer status 1 = Carer status					
Body Mass Index (BMI)	kg/m <sup>2</sup>					
Programme	Number of tier-2 programmes attended $(0 - 4)$					
Participation						
Reported Importance of	11-point self-report scale					
making change	0 = not important at all 10 = extremely important					
Reported Confidence	11-point self-report scale					
about making change	0 = not confident at all 10 = extremely confident					
Referral Level Variables	Coding Description					
Referral ( <i>n</i> )	Referral instance ( <i>n</i> th referral for the same client)					
Attendance	Number of sessions attended for this referral instance					

<sup>†</sup>No coach characteristics were available for modelling

<sup>‡</sup> Cell-size for other gender identities was too small to model

#### **Statistical Analysis**

For primary effectiveness analyses, client outcomes were coded. Client outcomes included the attainment of enrolled pathways. Secondary analysis used frequencies and proportions to express service attendance and completion rates. Session attendance was defined as a proportion of total sessions offered/planned—demographic characteristics of clients such as completers and non-completers; were also summarised. Client demographics were compared and interpreted against local population norms. Analysis was used to understand any inequalities in service access and acceptability to clients.

A key performance indicator was (and marker of Reach) the percentage of clients supported from the most deprived areas. The indicator was compared against a target that 50% of clients were from the 30% of most deprived LSOAs. Across tier-2 programmes, outcomes were represented as binary variables. Thus, generalised linear mixed modelling was applied for all primary analyses. Models used a binomial distribution and logit link function. Parameters were estimated via the penalised robust quasi-likelihood method—the method accommodated for possible violations of model assumptions. As the data were hierarchical, a three-level model was constructed. Referrals (level 1) nested within clients (level 2), and clients nested within coaches (level 3). Intraclass correlation coefficients (ICCs) were computed to identify the outcome variance at each level. Random intercepts were used to correct for differential outcomes by the client and coach. Predictor variables were examined as fixed effects and presented as odds ratios (OR) with 95% confidence intervals.

#### Model building

We first examined bivariate models of individual predictor-outcome relationships. Then we built a multivariate model including all significant predictors from bivariate models. Finally, we dropped predictors that were not significant in the multivariate model. We then had a final parsimonious model. Removing weaker/less relevant predictors from the model reduced standard errors for other predictors, enabling more precise estimates of their effects. Model fit was monitored using the Akaike information criterion (AIC). Pairwise deletion, with cases excluded from models in which data were missing on a required variable, was used to manage missing data. We applied linear mixed models for secondary outcomes that were non-binary, such as the percentage weight loss. The models used maximum likelihood estimation, paralleling the generalised linear mixed models' approach.

# **Results**

Table 7 presents descriptive statistics for clients in the dataset. OYL activity was between June 2019 and February 2022 with data for 16,354 clients available. However, data completeness varied across cases and variables. Proportions in Table 7 are expressed as a percentage of valid (non-missing) data for each variable.

<b>Client Variables</b>		n	%
Age	<i>Mn</i> 49.6 (SD 15.5)		
Gender	Male	4,694	(32%)
	Female	9,654	(66%)
Ethnicity	White British	10,662	(93%)
	Ethnic Minority	829	(7%)
Rurality	Rural	5,948	(51%)
	Urban	5,793	(49%)
Deprivation	Living in top-30% most deprived	5 026	(38%)
	LSOAs	3,020	(30%)
	Living in less deprived LSOAs	8,360	(63%)
Long-term health	Yes	7,272	(72%)
condition	No	2,767	(28%)
Mental health condition	Yes	3,600	(39%)
	No	5,659	(61%)
Long-term sickness	Yes	2,528	(26%)
and/or unemployment	No	7,377	(75%)
Carer Status	Carer	852	(7%)
	Non-Carer	11,240	(93%)
BMI	<i>Mn</i> 34.6 (SD 13.7)		
Programme participation	<i>Mn</i> 1.4 (SD 0.9)		

#### Table 7.Client characteristics in quantitative dataset (N unique IDs = 16,354)

Importance of making	<i>Mn</i> 9.2 (SD 1.3)				
change					
Confidence in making					
change	WIT 1.0 (3D 2.4)				

Note. % Reflect proportions for valid (non-missing) data. Percentages may not sum to 100% due to rounding. LSOA = Lower Layer Super Output Area

For evaluative interest in **Reach**, there is evident diversity in the OYL client base. Compared to Lincolnshire population norms, OYL service users represent the broader population. 93% of the Lincolnshire population identified as White British in the 2011 census. However, the service was under-representative of men—48.7% of the Lincolnshire population and older than the county average of 43.2%. Figure 5 shows the percentage of One You Lincolnshire clients from the 30% most deprived LSOAs compared to the commissioning target.
Figure 5.Percentage of One You Lincolnshire clients from the 30% most deprived LSOAs compared to commissioning target



## Service outcome effectiveness and predictors

Evaluative results relate to **Effectiveness** across the core outcome indicators, such as Stop Smoking, Alcohol Reduction, Physical Activity, and Weight Loss.

#### **Stop Smoking Pathway**

OYL quit smoking was above the target standard of 50%. As shown in Figure 6, for OYL clients engaging with Stop Smoking support and setting a quit date, **56% quit smoking (95% CI = 55-57%)**. Successful quitting was self-reported at four weeks, and data came from 8,124 quit attempts within 6,036 clients. The improved quit rate under OYL has seen Lincolnshire Stop Smoking Services rise from 10th to sixth place in total quits. OYL compares well to available figures from previous stop-smoking services in Lincolnshire. Data from 2017-18 and 2018-19 indicated 46–50% quit rates.

Moreover, the quit rate observed within OYL is comparable to NHS Stop Smoking Services outcomes in England. In the concurrent period (2019-22), NHS outcomes were 51–59%.

# Page 119

OYL rates were more than double the estimated 25% quit rate among self-quitters (Dobbie et al., 2015). Due to the impact of the pandemic and the shift to remote support, Carbon Monoxide verification in the national NHS data has dropped to 2-3%. The proportion of Carbon Monoxide verification in OYL data over this pandemic-affected period was low at 10%. There was no significant effect of COVID reconfiguration on Stop Smoking support. For instance, quit outcomes were similarly for pre- vs post-pandemic, indicating the shift to remote support and reliance on self-report without Carbon Monoxide verification did not inflate positive quit outcomes. For specific target populations, 44% of 685 pregnant women quit smoking with OYL. OYL outcomes were comparable to NHS Stop Smoking Services outcomes of 45-48% over the same period. NHS outcomes had also improved pre-OYL, with a success rate of 38% in pregnant smokers over 2017-18.

# Figure 6.Service delivery differences in self-reported successful quit smoking rates



1 <u>https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-nhs-stop-smoking-services-in-england/april-2020-to-march-2021</u>

2 https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-nhs-stop-smoking-services-in-england/april-2019-to-march-2020

3 Based on 8,124 quit attempts within 6,036 clients

Only a small proportion of variance was accounted for at the level of the coach (2%) or client (6%) for smoking outcomes. Most variances were explainable at the referral level, reflecting variability within clients. Such as that the same client might achieve their quit target on one occasion but not another. When modelling all bivariate predictors together, four variables emerged as independent predictors. Figure 7 shows the predictors for smoking outcomes. At the client level, success was more likely with age. Success was also more likely with reported confidence in the ability to change and perceived self-efficacy.

Yet, less likely in the context of existent mental health conditions (NHS Digital, 2021). For illustration, the quit rate in those aged 40 years and older was 52% compared to 61% in those aged 60 years and older. The quit rate in those with vs without a mental health condition was 51% vs 59%. Clients reporting a confidence score of 7 or more out of 10 in their ability to make a change had a quit rate of 61%. Compared with a quit rate of 50%, those reported a confidence score of 6 or less. At the referral level, success decreased with successive attempts/referrals.

Chaiton et al. (2016) found that individuals who found quitting easier tended to succeed in early attempts. Whereas individuals with repeated unsuccessful attempts, the average success rate diminished over attempts. Adjusting for the predictors above, we observed outcome equalities. Rurality, deprivation, gender, ethnicity, and presence of long-term health conditions did not impact outcomes. Neither did sickness and unemployment status, carer status, and BMI. Smoking outcomes were not significantly related to attending multiple programmes. The reported importance of change and COVID reconfiguration were unrelated to outcomes also.

# Figure 7.Likelihood of quitting smoking by client factors and quit attempts whilst using One You Lincolnshire between June 2019 to February 2022



Note. Error bars give 95% Confidence Intervals (CIs) for each observed odds ratio. All effects are statistically significant (95% CIs do not cross the line of equal likelihood).

#### **Alcohol Reduction Pathway**

Figure 8 shows **57% reduced alcohol use** (95% CI = 52–61%) via OYL alcohol reduction or health coaching pathways. Data came from 635 reduction attempts within 544 clients. Reduced alcohol use was determined as decreasing intake by 50% or more or to less than 14 units per week. Moreover, across all OYL clients meeting eligibility criteria for alcohol reduction, **37% reduced alcohol use** (95% CI = 35–39%). Data was monitored from 2,351 referrals across 1,599 clients. Benchmark outcomes for brief alcohol reduction interventions were 10–30% (Heather, 2012, O'Donnell et al., 2014). High rates of alcohol reduction were supported across the service. Intention-to-treat analysis showed that clients not in the alcohol reduction pathway still reduced drinking.

Figure 8.Service delivery differences in self-reported successful reduced drinking rates



1 Fleming, M., and Manwell, L.B., 1999. Brief intervention in primary care settings: A primary treatment method for at-risk, problem, and dependent drinkers. Alcohol Research & Health, 23(2), p.128.

2 Heather, N., 2012. Can screening and brief intervention lead to population-level reductions in alcohol-related harm. Addiction Science & Clinical Practice, 7(1), pp.1-14.

3 O'Donnell, A., Anderson, P., Newbury-Birch, D., Schulte, B., Schmidt, C., Reimer, J. and Kaner, E., 2014. The impact of brief alcohol interventions in primary healthcare: a systematic review of reviews. Alcohol and alcoholism, 49(1), pp.66-78.

4 Based on 2,351 reduction attempts within 1,599 clients

Most outcome variance was accounted for at the coach (19%) and client (11%) levels for alcohol reduction outcomes. In particular, there was evident clustering by the coach. Clustering suggests between-coach differences in outcomes. For example, the

47

## Page 123

characteristics of coaches may enable successful outcomes. When modelling all bivariate predictors together, three variables emerged (Figure 9). The variables were independent predictors of alcohol reduction outcomes. At the client level, success was more likely with age and participation in other tier-2 programmes. At the referral level, success was more likely following 1:1 health coach input. Adjusting for the predictors above, we observed outcome equalities. Rurality, deprivation, gender, ethnicity, and long-term health conditions did not impact outcomes. Neither did mental health, sickness and unemployment, carer status, and BMI. Alcohol reduction outcomes were not significantly related to the reported change in importance or confidence. COVID reconfiguration was not related either. Predictors suggest equity of outcome after transitioning from in-person to online delivery.

# Figure 9.Likelihood of reducing alcohol consumption whilst using One You Lincolnshire between June 2019 to February 2022



#### **Physical Activity Pathway**

As shown in Figure 10, **43% (95% CI = 42–44%) of clients increased physical activity** via physical activity or health coaching pathways. Data came from 7,881 activation attempts within 5,943 clients. A successful outcome was 150 minutes of moderate activity per week. Across all OYL clients meeting the eligibility criteria to become active, **28% (95% CI = 27–29%) were supported to be 'active' by the end of referral**. Eligibility criteria were those who were 'inactive' or 'fairly active' when entering the service. Data was monitored from 16,181 referrals to 10,877 clients. Observed success rates compared to benchmark effectiveness of exercise referral schemes of 13–18% (Williams et al., 2007). High rates of

physical activation were supported across the service. Intention-to-treat analysis showed that clients not in the physical activity pathway still increased physical activation.

# Figure 10.Service delivery differences in self-reported successful increased physical activity rates



 Williams, N.H., Hendry, M., France, B., Lewis, R. and Wilkinson, C., 2007. Effectiveness of exercise-referral schemes to promote physical activity in adults: systematic review. British Journal of General Practice, 57(545), pp.979-986.
 Based on 16,181 activation attempts within 10,877 clients

Most of the variance was accounted for at high levels. There was 27% variance at the coach level plus 24% at the level of the client for physical activity outcomes. The predictors emphasise the value of coach-level and client-level influences on activation outcomes. When modelling all bivariate predictors together, nine variables emerged (Figure 11). The variables were independent predictors of activity outcomes. At the client level, success was more likely with age and participation in other tier-2 programmes, and success was less likely with deprivation, long-term unemployment, and sickness.

Additionally, success was more likely in women and when living with long-term health conditions. At the referral level, success was more likely following 1:1 health coach input. Also, increased attendance and over repeat referrals. As shown in Figure 10, the most influential factors were multi-programme participation. Clients participating in more than one programme were 2.7 times more likely to succeed. Health coach input correlated to 2.5 times as likely to succeed. The factors suggest that integrated delivery potentiated better outcomes across the client base. Adjusting for the predictors above, we observed outcome equalities. Rurality, ethnicity, presence of mental health conditions, carer status, and BMI did not impact outcomes. Physical activation outcomes were not significantly related to changes in importance and confidence. Also, neither was COVID reconfiguration. We observed some inequities in the outcome. Gender and deprivation predictors suggested that some groups were less able to benefit from OYL support in physical activity. Long-term unemployment and sickness, as a marker of disability, also affected outcomes.

Figure 11.Likelihood of increasing physical activity to 150 minutes a week whilst using One You Lincolnshire between June 2019 to February 2022



#### Weight Loss Pathway

As shown in Figure 12, **33% (95% CI = 32–34%) of clients achieved 5% weight loss** via adult weight management or health coaching pathways. Data came from 6,858 reduction attempts within 5,885 clients. Successful weight loss was achieved at 12 weeks following the start of a client's weight management plan. Across all OYL clients meeting the eligibility criteria of a BMI of 30 or above, **25% (95% CI = 25–26%) of clients achieved 5% weight** 

**loss.** On average, clients had a weight reduction of 6%. Data was monitored from 12,915 referrals to 8,201 clients. The success rate of clients opting into the weight management pathway exceeded NICE guidelines (NICE, 2014).

Guideline targets for commissioned weight management services were 30% achieving 5% weight loss. OYL also exceeded the guidance of an average weight loss target of 3%. In a recently published evaluation of UK tier-2 weight management services, it was found that only a minority met the NICE criterion (Ells et al., 2018). The success rate for OYL is comparable to those observed in auditing patients referred to NHS weight loss programmes at 33% (Ahern et al., 2011). OYL also had a better rate (32%) than other integrative programmes in the UK (Birnie et al., 2016).

# Figure 12.Service delivery differences in self-reported successful reduced weight rates

NICE Guidelines Previous Standard Care	One You Lincolnshire Integrated Care		
NICE Targets	OYL Dataset 2020-2022		
<b>3%</b> weight loss exceeded in	<b>33%</b> of clients self-reported		
OYL	successfully losing 5% of body		
	weight after 12 weeks. <sup>2</sup>		
<b>30%</b> intervention target			
exceeded in subcontracted	<b>40%</b> of clients self-reported		
services <sup>1</sup>	successfully losing 5% of body		
	weight after 12 weeks with 2 <sup>nd</sup>		
	Nature and Slimming World		

2 Based on 12,915 reduction attempts within 8,201 clients

For weight loss outcomes, a small amount of variance was accounted for by coach predictors at 3%. A more substantive amount of variance was accounted for by betweenclient differences at 22%. When modelling all bivariate predictors, three variables emerged as predictors (Figure 13). At the client level, success was more likely with age. At the referral level, success was more likely following 1:1 health coach input and increased attendance. Adjusting for the predictors above, we observed outcome equalities. Rurality, deprivation, gender, and ethnicity did not impact outcomes. Neither did long-term health and mental health conditions or sickness, unemployment status, carer status, and BMI. Weight loss outcomes were not significantly related to a client's importance or confidence in making change, and multi-programme attendance or COVID reconfiguration was also unrelated.

# Figure 13.Likelihood of a 5% weight loss whilst using One You Lincolnshire between June 2019 to February 2022



## Pathway attendance and completion

Table 8 presents **Implementation**, pathway attendance and completion results. The table shows whether pathway delivery and engagement were consistent with planned provisions. Available 'Move More' data underestimates attendance and completion rates as data on session attendances was not maintained. In contrast, the data for 'Eat Healthy' was more

dependable as the data linked to weekly weight records. The completion rate for Eat Healthy was 70%. OYL exceeded the NICE guidance criterion for weight management programmes of 60% or above for completion.

Tier-2 programme	Standard N sessions offered	Criterion n for completion	Mn attendance	(95% Cls)	% Meeting completion criterion
Stop	6†	>5	6 80	(6.70, 6.91)	63%
Smoking	Ū	<u> </u>	0.00		0070
Move More	12	$\geq_9$	4.51	(4.44, 4.57)	26%
Eat Healthy	10	8	8.78	(8.67, 8.88)	70%
Drink Less	6	$\geq$ 5	4.44	(4.28, 4.60)	46%
Health Coach	4	≥3	3.59	(3.49, 3.69)	56%

#### Table 8.One You Lincolnshire pathway attendance and completion

**Note.** Each referral ID contains a single attendance figure, which may in some cases reflect attendance across multiple programmes. Estimates were obtained by limiting to referrals that only contained outcome data for a single programme but may be inflated. <sup>†</sup>But can range up to 12 sessions as needed.

## **COVID-19 reconfiguration**

Sustaining outcomes through challenging reconfigurations relates to the Maintenance of successful implementation. Effectiveness analyses showed that post-COVID reconfiguration did not significantly affect outcomes. Outcome effectiveness was maintained after transitioning from in-person to remote delivery. We also explored if OYL could maintain equitable access after service reconfiguration. As shown in Table 9, there were significant changes in the characteristics of the client base. There were changes in age, gender, deprivation, ethnicity, and disability. The changes indicated that some subpopulations were less well-represented post-COVID. **Reach** was enhanced through service reconfiguration in some ways. Enabling remote access to services and digital solutions overcame restrictions on in-person delivery. Remote access also allowed more open referral pathways, boosting commenced referrals from ~353 per month to ~668 per month. However, there were some evident inequities in the uptake of reconfigured services. Access seemed to be enhanced

for those from less deprived areas. As a result, the service moved further from the targeted representation of those from the most deprived areas.

#### Table 9.Significant differences in demographic profile of clients accessing

services pre- vs. post-COVID

	$\overset{O}{\frown}$		
	Pre-COVID	Post-COVID	
	In-person	Remote	
Commenced referrals (n)	3,174	15,357	
Mean Age	52.1	49.6	
% Men	37%	31%	
% From most deprived areas	45%	35%	
% Ethnic minorities	9%	7%	
% Long-term unemployed/sick	30%	24%	

# Limitations

Limitations must also be acknowledged. As is typical for real-world intervention evaluations, a pre-post design was used with no control group. Furthermore, client outcomes were self-reported using instruments suited to a clinical setting. As such, there was modest validity relative to gold standard research measures. However, the changes in measured health outcomes suggest that behaviour change was achieved. Whilst limitations might be seen as weaknesses for efficacy, the benefits of healthy lifestyles are well known. Hence, the primary contribution of this study relates to implementation outcomes.

# Chapter 5 Economic Evaluation

# **Value Proposition**

#### Definition

A value proposition is a "statement of the benefits and value that a service can deliver to its customers and prospective customers" (Barnes et al., 2009). Service provision involves contributions from stakeholders, and each stakeholder can be considered a customer receiving a service from another stakeholder. However, the primary customer is the patient. A value proposition differs from an economic evaluation in encompassing a range of value measures (Price and St John, 2019).

#### Application

The most quoted definition of value in health care is *"health outcomes achieved per pound spent" (Porter, 2010)*. However, we recognise other dimensions of value in healthcare. Improving quality is integral to pursuing value in healthcare, and Donabedian (2002) advocated for quality healthcare to improve processes and outcomes. Therefore, the value proposition describes the nature of the service and the care pathway to which it contributes.

#### One You Lincolnshire's Value

Clients accessing OYL's integrated support service adopted healthy lifestyles. OYL success rates exceeded national benchmarks across behavioural outcomes of smoking, physical activity, healthy eating, and alcohol consumption. OYL's services show equities of the outcome. People from ethnic minority groups and rural areas were likely to benefit from integrated support recognising the interdependent nature of health behaviours. Integrated

care had a significant impact on outcomes. Support across pathways from a health coach and participation in multiple pathways increased success rates. Success was seen across weight management, physical activity, and alcohol reduction pathways. For example, the success rate for alcohol reduction clients without a health coach or engagement with multiple pathways was 2%.

Clients with a health coach support and engage with all pathways had a success rate of 75% for alcohol reduction. The synergistic effects of integration represent added value over siloed provisions. The effect translates into incremental cost-effectiveness compared to equivalent funding of a group of isolated providers. OYL serves over 16,000 people in Lincolnshire. The service has been able to pivot in challenging circumstances. Moreover, it continued to provide access to support throughout the COVID-19 pandemic. OYL maintained outcome success rates from pre- to post-reconfiguration. OYL also almost doubled client referral rates. The service has an established and tested infrastructure for regional delivery across different modalities. If sustained, outcomes delivered by OYL will lead to savings for the local health and social care system. As lifestyle-related conditions and disability-adjusted life years are reduced. Smoking cessation and alcohol reduction could increase disposable income within local communities.

# **Chapter 6** Discussion

## Access and referrals to One You Lincolnshire

#### Overall accessibility to the service

This evaluation explored the reach of One You Lincolnshire (OYL) for eligible clients in the county. Secondary analysis and interviews found that most clients were white British and women. The average age of a client was around 50 years old, and there was an even distribution of clients from both rural and urban settings. Compared to the literature, the demographic of OYL reflected most weight-loss interventions. For example, most clients were white, female and from less disadvantaged groups (Haughton et al., 2018, Jackson et al., 2020). Additionally, most clients at the point of triage had a BMI categorised as obese. A key eligibility criterion of OYL was clients having a long-term health condition. Clients with LTHC are often more at risk of obesity and experience barriers to care (Betts and Froehlich-Grobe, 2017). As such, OYL was able to provide accessibility to a critical target group at risk of ill health.

#### **Barriers for subpopulation groups**

The underrepresentation of men in the service was explored in the qualitative interviews. Men reported reduced GP visits, perception of women-dominant programmes, and fear of seeking help. Indeed, a study by Wagner et al. (2007) found that reduced health-seeking behaviours in men were associated with limited health literacy. Literature shows that men were less likely to seek care than women, even with severe health problems (Schlichthorst et al., 2016). Among those aged 21 to 58, men consulted a GP half as often as women, and the difference was not explained by reproductive health reasons (Schlichthorst et al., 2016).

Ethnic minorities were also underrepresented in OYL. Previous lifestyle services also noted fewer minority groups accessing the service (Haughton et al., 2018). For example, Azar et

## Page 135

al. (2020) found that older ethnic minority groups had more significant barriers to services than the general population. Nevertheless, OYL clients that accessed the service were motivated, and most clients have a high confidence score to change and the importance to change at the start. Before the COVID-19 pandemic, most OYL clients were referred to the service via their GP. The use of annual NHS Health Checks was found to be better attended by older individuals (Coghill et al., 2018).

However, COVID-19 put a considerable strain on primary care. Qualitative focus groups highlighted the prioritisation of clinics on COVID-19 management. Also, the removal of face-to-face contact with patients resulted in fewer referrals to OYL via GPs. One major reconfiguration in the service was the introduction of self-referral. Secondary analysis revealed that the demographic of OYL changed with the new reconfiguration. For example, the average age of clients became younger. The demographic also was more women-dominant and had fewer ethnic minorities. Clients who were long-term unemployed and from deprived populations were also less likely to refer to the service. Interviews suggest that COVID-19 resulted in GPs encouraging potential clients to self-refer. Rather than initiating direct referrals, GPs relied on a client's health-seeking behaviour to follow up on the GPs suggestion. As such, groups with lower health-seeking behaviour may have been less likely to self-refer than if referred by GPs. Thus, men may be less likely to self-refer or visit a GP, making referral routes for men into the service difficult.

#### Meeting Commissioning Targets

Deprived groups live in the poorest neighbourhoods on low incomes. As such, populations often have limited access to safe living and health services. The commissioning target for OYL was 50% of clients from the 30% of most deprived LSOAs. However, OYL's reach was currently 38%. Extensive literature has shown that social inequities impact access to health services. When compared to other lifestyle services, OYL reflected similar accessibility barriers. Individuals living in more deprived neighbourhoods had poorer population health (Coghill et al., 2018). As such, complex health needs were more common in clients from deprived areas. Clients in OYL from deprived LSOAs were likelier to have long-term health conditions and poorer mental health.

Also, clients were more likely to have long-term unemployment, sickness, or substance dependencies. Complex unhealthy lifestyle behaviours may be an indicator of reduced service engagement. One study found that participants with many unhealthy lifestyles were 24% less likely to attend a GP appointment than those without (Feng et al., 2014). As disadvantaged groups are more likely to have complex health needs, they may have been less likely to engage in the referral routes OYL offered. Previous work has shown that unhealthy lifestyles cluster among low socioeconomic groups and deprived populations are less likely to seek primary healthcare. Thus, it is uncertain whether behavioural interventions in primary healthcare are reaching those in most need (Feng et al., 2014).

#### Barriers to alcohol reduction referrals

Excess alcohol consumption can impact older adults, and drinking has been shown to exacerbate long-term health conditions in older groups (Bareham et al., 2021). The average age of clients in OYL was 50 years old. Thus, alcohol reduction support was beneficial to existing OYL clients. However, OYL had low referrals to the alcohol reduction pathway. Health coach focus groups revealed that time-constrained care affected practitioners' ability to address clients. Previous studies show that alcohol-related conversations were not regularly part of a GP's work (Bareham et al., 2021). In the context of older populations, practitioners were deterred from talking. GPs mentioned concerns about sensitivity to the topic prevented discussions.

Also, competing priorities when addressing older people's complex health needs. GP interviews from this study highlighted the limited promotion of alcohol reduction to clients. Practitioners were more likely to recommend weight management and smoking cessation to clients. Practitioners found diet and smoking behaviours easier to infer than alcohol intake. These findings reflected existing literature on GP engagement with brief alcohol interventions. One study noted that GPs felt that assessing smoking status was 'straightforward'. Practitioners often determined physical activity from appearance, assessing if a patient was overweight (Ampt et al., 2009). In contrast, assessing alcohol intake was only during a formal health check. Therefore, a practitioner's congruence and capacity may influence alcohol pathway referrals. The relationship between patient-GP is thus key for lifestyle interventions (Johnson et al., 2010).

## **Client Outcomes of One You Lincolnshire**

#### **Overall service outcomes**

Clients referred to OYL were likely to engage in the service's healthy eating and physical activity pathways. Most clients used one or two pathways whilst in the service, as exampled in the case study of Sarah's story. Sarah discussed how she went to the service for Slimming World. After completing the 12 weeks, she was recommended for physical activity support by the health coach, which she took up. As a result, Sarah could use multiple pathways of the service. A review by Johns et al. (2014) found more significant weight loss in services combining diet and exercise compared to interventions focused on either diet or exercise alone. Therefore, OYL had better outcomes across all pathways than the standard level of care, with a higher percentage of clients meeting targets.

# Physical Activity: online delivery, health coach support and deprived groups

28% of clients on the OYL physical activity pathway met the target of 150 minutes of moderate to vigorous exercise weekly. In comparison to 13-18% of patients that had used the national exercise referral scheme. Being a woman and older increased the likelihood of achieving 150 minutes weekly. Long-term health conditions were also more likely to achieve 150 minutes a week. Conditions affecting mobility and pain management were most common in the qualitative findings. The introduction of personalised online delivery may have favoured individuals with LTHCs. As Anna's case study described, online group exercise classes were beneficial for limited mobility. A study by Betts and Froehlich-Grobe (2017) found that limited mobility was a barrier to weight loss and exercise interventions. Inperson weigh-ins and inaccessible transport reduced the feasibility of attending and completing interventions. Therefore, OYL presents an opportunity for physical activity for people with impaired mobility and LTHCs and meets the needs of growing evidence of weight-related disparities.

However, studies show that digital services are more likely to undermine disadvantaged groups. Poor access to mobile technology, Wi-Fi, or mobile data has been associated with

low user motivation for behaviour change (Szinay et al., 2020). Thus, online delivery may present opportunities and challenges to OYL delivery. A health coach and better attendance increased the likelihood of successful activity outcomes. McGuire et al. (2019) found that people receiving 1:1 and group support were more likely to engage in physical activity than in group sessions alone. Likewise, frequent meetings were associated with weight loss (Dansinger et al., 2007). OYL clients from more deprived areas with long-term unemployment were less likely to achieve 150 minutes weekly. A systematic review of low-income groups found that whilst people kept up with dietary changes, physical activity was less consistent (Bull et al., 2015). Evidence shows that one of the main reasons for individuals not achieving outcomes was incurred costs (Nagelhout et al., 2017).

Despite data finding that deprived groups were less likely to meet goals, OYL clients showed meaningful changes. After the intervention, interviews found that clients had greater confidence, motivation, and self-esteem. These factors are critical for sustained lifestyle changes (Male et al., 2022). Jong et al. (2020) highlighted that creating a supportive environment for behaviour change was essential for success. Thus, OYL encompasses not only physical activity but psychosocial well-being. However, Baumeister et al. (1998), Vohs and Heatherton (2000) found that human self-regulation draws on limited resources as such single behaviour change may benefit low-income groups. Thus, the most effective modality of lifestyle services may depend on the target group.

# Weight loss: commercial programmes, older clients, and person-centred support

OYL exceeded NICE guidance of an average weight loss target of 3%. 33% of clients also achieved 5% weight loss. 40% of clients lost weight with external partners such as Second Nature and Slimming World. Similar studies have found positive outcomes from commercial weight-loss programmes. Allen et al. (2015) found that a 'free' GP referral to services that typically cost people money encouraged participation. Age was a predictor of weight loss, with older clients more likely to achieve losing weight. Also, clients with a health coach who attended more sessions were more likely to achieve a weight loss of 5%. Previous evidence found that 60-year-olds lost more weight than younger individuals and sustained significant weight loss (Svetkey et al., 2014).

63

Qualitative interviews revealed that clients valued ongoing person-centred support. Rapport with health coaches was viewed as encouraging, with positive relationships among many clients. The health coach interviews mentioned using proactive messaging. Messaging included motivational interviewing. Also, coaches engaged with clients and gave feedback on progress and tips. Celis-Morales et al. (2017) found that people with personalised support consumed less unhealthy food. Health coach interactions may influence client outcomes as higher engagement leads to greater effectiveness. Some clients discussed a preference for online, viewing group sessions as more accessible. To date, few studies have compared health coaching delivery. However, Appel et al. (2011) found improvement in weight with both remote and face-to-face support. Thus, the reconfiguration of OYL service delivery may offer a unique insight into online and face-to-face support.

#### Alcohol Reduction: age, deprivation, and physical activity

Despite low referral rates to OYL brief alcohol support, clients had successful outcomes. In comparison to 10-30% in standard interventions, 57% of OYL clients drank less than 14 units of alcohol a week. Older clients and 1:1 support were predictors that increased a client's likelihood of achieving the behaviour change outcome. The Royal College of Psychiatrists (2018) recommended that low-risk drinking for people aged 65 and over be drinking no more than 12 UK units per week. Older people are likely to be more sensitive to alcohol-related harm through the effects of ageing and have a higher risk of interactions with prescribed medications (Rao, 2020).

Another predictor was a client being referred to another OYL pathway. Alcohol support was suggested to clients through physical activity or weight loss, and coaches offered support through alcohol reduction for weight loss rather than dependency. Studies have shown that exercise may reduce alcohol consumption among hazardous drinkers (Rasmussen et al., 2021). Indeed, specific exercises may encourage more days of no drinking. For example, one study by Gunillasdotter et al. (2022) found that people who did yoga drank around 5.5 drinks less per week than those in the aerobic exercise group. Interviews revealed that deprived populations used the pathway less. One reason may be that alcohol treatment was often needed for individuals rather than brief advice. Evidence shows that individuals in the most deprived areas are less likely to drink but more likely to engage in heavy episodic drinking. Deprivation is associated with heavy episodic and frequent drinking (Fat et al.,

2017). Health coaches mentioned that the pathway faced stigmatisation, and support for alcohol reduction was still viewed as challenging by health professionals.

However, a key predictor of alcohol reduction was clients being in another pathway. Few scientific reports have investigated the effect of programmes targeting several lifestyle factors. However, one study found similar outcomes to OYL. Lee et al. (2009) showed that at-risk drinkers in integrated care were more likely to access treatment as such drinkers decreased harmful drinking more than those in the specific alcohol referral interventions.

#### Smoking cessation and mental health

56% of clients quit smoking for four weeks using OYL compared to 46% of patients using the NHS Stop Smoking Service. Older clients with a high confidence score were more likely to quit. In contrast, clients with previous attempts are less likely to quit. Also, clients with mental health conditions were less likely to quit. Studies have shown that changing behaviour is more difficult for service users with mental health conditions (**Bradley et al.**, **2021).** As such, there is a greater need to focus on confidence-building and readiness to change. As such, an improvement in mental health may significantly impact a client's ability to make physical health changes.

## **Working Relationships with One You Lincolnshire**

#### Primary care practitioners and capacity

Primary care is crucial in preventive health care activities, with staff promoting smoking cessation, responsible alcohol consumption, weight control and physical activity (Schlichthorst et al., 2016). Studies reveal that GPs often recruit hard-to-reach populations (O'Hara et al., 2015). GPs were identified as a critical element of the OYL service model. Most clients expressed a high trust in GPs. Clients followed GP suggestions, often assuming that "the doctors know best". However, in this study, primary care staff presented some gaps in knowledge of the OYL service model.

Also, GPs expressed having limited capacity and time to engage with the referral process of the service. Health coaches and partners reflected on historical relationships with primary care clinics. Before the introduction of OYL, a key challenge was managerial capacity at primary care clinics, which limited clinics' buy-in to community services. Din et al. (2015) found a reluctance to promote physical activity to patients by GPs. The study identified several barriers to referral—for example, the time constraints placed on GPs. Also, the priority of physical activity about other health promotion activities (Din et al., 2015). As a result, OYL leadership found relationship building a critical need for service initiation and delivery. Interviews showed OYL had worked to gain buy-in from primary care clinics, and partners valued buy-in and viewed it as a critical facilitator for referrals into external programmes.

#### Quality assurance and data sharing

Quality assurance was a key commissioning strategy the evaluation aimed to evidence. Interviews revealed that quality was embedded into the service design as OYL leadership encouraged buy-in across teams and pathways. All OYL team members had consistent training in behaviour change, and continual learning was also embedded into the organisation. Vangen and Huxham (2000) suggested that trust was imperative for a successful partnership working. Relationships between OYL and service partners were positive, and consistent communication and trust were highlighted as critical strengths of the organisation. One factor that did vary between partners was data sharing. Each partner organisation had different data-sharing processes and administration capacities. Also, referral routes had varied approaches to referring to the service. These areas may provide opportunities to streamline tasks, as Henderson et al. (2018) found that seamless data sharing between organisations often contributed to a consistent end product.

# Service completion and sustainability of One You Lincolnshire

#### Pathway completion and service configuration

Lifestyle interventions often have sustained low changes reported. Completion and long-term changes were as complex as the factors influencing access to the intervention (Gidlow et al., 2005). However, many studies showed that close adherence to lifestyle modification resulted in a favourable outcome (Oh et al., 2018). OYL had a range of completion rates across the four lifestyle pathways. More than half of clients that took up stop smoking support had still quit four weeks later. Over half of the clients completed their sessions with a health coach, and over a quarter completed the physical activity and weight management programmes. However, there was limited data to explore the reasons for non-completers. Common challenges of non-completion of weight loss programmes were self-monitoring and low mood. Venditti et al. (2014) demonstrated that problem-solving weight loss programmes were associated with better outcomes. The sustainability of OYL can also be looked at through the organisation's ability to withstand risk and change as the service delivered all pathways for Lincolnshire residents during the COVID-19 pandemic.

# Chapter 7 Recommendations and Conclusion

## Improve access for disadvantaged groups

OYL had good access for most clients entering the service and reflected the demographic of the county. However, some clients were less well represented in the service. There may be a need for improved access for disadvantaged groups, men, and ethnic minorities. Previous studies found that individuals living in deprived areas preferred personalised care (Christensen et al., 2020). The role of the health coach was also valued. Coaches helped handle low moods and lack of motivation among vulnerable groups. Rapport building with a client started at the initial engagement. Coaches were able to address a client's willingness and ability to change. Then throughout the service, address triggers that affect a client's ability to sustain positive change.

As there were few clients from different ethnic groups, further research may be needed to understand rapport building. Social opportunity barriers included cultural identity linked to the consumption of traditional starches—also, the desire to perform physical activity that was culturally acceptable such as walking and dancing. The evaluation also highlighted signposting by health practitioners. Less direct referrals may have reduced the number of clients to reduced alcohol consumption pathways. The role of practitioners is a vital component of the service, and they are necessary for networking, integrating care elements, and showing leadership. The NHS Health Check was a key route into the service. Previous studies have also shown that inviting patients for an NHS Health Check is a predictor of attendance. Verbal, telephone, and enhanced letter invitations are predictors of attendance. In comparison to a traditional letter invite (Coghill et al., 2018). Thus, applying behavioural insights may be more effective at encouraging attendance to the health check and, in turn, OYL.

## Innovative promotion of alcohol support

Phase 2 showed that alcohol reduction support had low referrals. Alcohol consumption was challenging for referral routes to promote as there was stigma toward receiving support. However, once on the pathway, clients had significantly improved outcomes compared to standard care. One unique feature of OYL was that most clients on the pathway were referred once in the service. Services supporting substance use have traditionally been delivered separately from other health care services. As substance use is seen as a social problem, prevention support is often not considered a responsibility of the health care systems. Alcohol reduction was promoted positively via weight loss with holistic health benefits. Thus, OYL may want to consider the promotion and social marketing of alcohol reduction.

## Streamlining of data

Technology can play a crucial role in supporting integrated care. Electronic health has the potential to support quality, track patients, and identify trends and threats. As OYL had issues with Response 365 and some gaps in data, robust data systems could improve the organisation and usability of clinical data. Data sharing could help patients, health care professionals, and health system leaders coordinate care, promote shared decision-making, and engage in quality improvement efforts. Also, data systems could provide information in many languages, connecting patients with culturally appropriate providers. Exchanging treatment records among health care providers improves treatment and patient safety. However, given known discrimination based on race or substance use disorders, safeguards against inappropriate or inadvertent disclosures are essential when streamlining data sharing. Therefore, protecting confidentiality when exchanging sensitive information must be considered.

# Conclusion

Integration is the systematic coordination of general and behavioural health care. Integrating services have been shown to provide a practical approach to supporting whole-person health and wellness. Too many patients fall through the cracks when health care is not well integrated and coordinated across systems. A lack of integration can lead to missed prevention or early intervention opportunities. Single behaviour changes interventions have been successful; however, OYL provides crucial evidence on the benefit of clients with multiple unhealthy risk factors. OYL outcomes exceeded all standard care across all four lifestyle risks and positive qualitative experiences from clients. Despite COVID-19, the service remained adaptable and successfully reconfigured service delivery. OYL was able to focus on local relationships and made strong connections with organisations in Lincolnshire. As such, OYL was able to create an integrated offer for clients, increased the likelihood of better outcomes and has the potential to reduce health disparities.

# **Acknowledgments**

We want to thank the following individuals: Dan Rogers (Head of Service) and Jackie Williams (Head of Quality), for their continual support and guidance at One You Lincolnshire. Sally Bassett (East Midlands Public Health Research Specialty Manager), Liz Furnell (Study Support Facilitator), Marie Thompson (Study Support Service Divisional Manager) and Professor Pip Logan, Professor of Rehabilitation Research at the University of Nottingham, for support and help through the NIHR and the West-East Clinical Research Network (CRN). Also, thank you to members of the steering group, David Clarke, Katie Ferrett, Justin Jones, Jimmy Rushworth, Jenny Spence, Lisa Saunders, and Gary Baker, for contributing to this report's research design and analysis. All One You Lincolnshire staff who gave their time and dedication to recruiting participants. Individuals from Lincolnshire for participating in interviews and focus groups for this evaluation.

### References

- AHERN, A. L., OLSON, A. D., ASTON, L. M. & JEBB, S. A. 2011. Weight Watchers on prescription: An observational study of weight change among adults referred to Weight Watchers by the NHS. *BMC Public Health*, 11, 434.
- ALLEN, J. T., COHN, S. R. & AHERN, A. L. 2015. Experiences of a commercial weight-loss programme after primary care referral: a qualitative study. *Br J Gen Pract,* 65, e248-55.
- AMPT, A. J., AMOROSO, C., HARRIS, M. F., MCKENZIE, S. H., ROSE, V. K. & TAGGART, J. R. 2009. Attitudes, norms and controls influencing lifestyle risk factor management in general practice. *BMC Family Practice*, 10, 59.
- APPEL, L. J., CLARK, J. M., YEH, H.-C., WANG, N.-Y., COUGHLIN, J. W., DAUMIT, G., MILLER III, E. R., DALCIN, A., JEROME, G. J. & GELLER, S. 2011. Comparative effectiveness of weight-loss interventions in clinical practice. *New England Journal of Medicine*, 365, 1959-1968.
- AZAR, N. S., KAMAL, S. H. M., SAJADI, H., HAROUNI, G. R. G., KARIMI, S. &FOROOZAN, A. S. 2020. Barriers and Facilitators of the Outpatient Health ServiceUse by the Elderly. *Iranian Journal of Ageing*, 15, 258-277.
- BAREHAM, B. K., STEWART, J., KANER, E. & HANRATTY, B. 2021. Factors affecting primary care practitioners' alcohol-related discussions with older adults: a qualitative study. *British Journal of General Practice*, 71, e762-e771.
- BARNES, C., BLAKE, H. & PINDER, D. 2009. Creating and delivering your value proposition: Managing customer experience for profit, Kogan Page Publishers.
- BAUMEISTER, R. F., BRATSLAVSKY, E., MURAVEN, M. & TICE, D. M. 1998. Ego depletion: is the active self a limited resource? *J Pers Soc Psychol*, 74, 1252-65.
- BELL, B. A., FERRON, J. M. & KROMREY, J. D. Cluster Size in Multilevel Models: The Impact of Sparse Data Structures on Point and Interval Estimates in Two-Level Models. 2008.
- BETTS, A. C. & FROEHLICH-GROBE, K. 2017. Accessible weight loss: Adapting a lifestyle intervention for adults with impaired mobility. *Disability and Health Journal*, 10, 139-144.

72

BIRNIE, K., THOMAS, L., FLEMING, C., PHILLIPS, S., STERNE, J. A. C., DONOVAN, J. L.
& CRAIG, J. 2016. An evaluation of a multi-component adult weight management on referral intervention in a community setting. *BMC Research Notes*, 9, 104.

- BRADLEY, T., HANSEN, V., WYE, P., CAMPBELL, E., BARTLEM, K., REID, K. & BOWMAN, J. 2021. Telephone-delivered health behaviour change support for people with a mental health condition: the coaches' perspective. *BMC Health Services Research*, 21.
- BRAUN, V. & CLARKE, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- BULL, E. R., DOMBROWSKI, S. U., MCCLEARY, N. & JOHNSTON, M. 2015. Are interventions for low-income groups effective in changing healthy eating, physical activity and smoking behaviours? a systematic review and meta-analysis. *BMJ Open*, 4.

CARE ACT 2014. Care Act.

- CELIS-MORALES, C., LIVINGSTONE, K. M., MARSAUX, C. F. M., MACREADY, A. L.,
  FALLAIZE, R., O'DONOVAN, C. B., WOOLHEAD, C., FORSTER, H., WALSH, M.
  C., NAVAS-CARRETERO, S., SAN-CRISTOBAL, R., TSIRIGOTI, L., LAMBRINOU,
  C. P., MAVROGIANNI, C., MOSCHONIS, G., KOLOSSA, S., HALLMANN, J.,
  GODLEWSKA, M., SURWIŁŁO, A., TRACZYK, I., DREVON, C. A., BOUWMAN, J.,
  VAN OMMEN, B., GRIMALDI, K., PARNELL, L. D., MATTHEWS, J. N. S., MANIOS,
  Y., DANIEL, H., MARTINEZ, J. A., LOVEGROVE, J. A., GIBNEY, E. R., BRENNAN,
  L., SARIS, W. H. M., GIBNEY, M. & MATHERS, J. C. 2017. Effect of personalized
  nutrition on health-related behaviour change: Evidence from the Food4Me European
  randomized controlled trial. *International Journal of Epidemiology*, 46, 578-588.
- CHAITON, M., DIEMERT, L., COHEN, J. E., BONDY, S. J., SELBY, P., PHILIPNERI, A. & SCHWARTZ, R. 2016. Estimating the number of quit attempts it takes to quit smoking successfully in a longitudinal cohort of smokers. *BMJ Open,* 6, e011045.
- CHRISTENSEN, N. I., DREJER, S., BURNS, K., LUNDSTRØM, S. L. & HEMPLER, N. F. 2020. A qualitative exploration of facilitators and barriers for diabetes selfmanagement behaviors among persons with type 2 diabetes from a socially disadvantaged area. *Patient Preference and Adherence*, 14, 569-580.

- COGHILL, N., GARSIDE, L., MONTGOMERY, A. A., FEDER, G. & HORWOOD, J. 2018. NHS health checks: a cross- sectional observational study on equity of uptake and outcomes. *BMC Health Services Research*, 18, 238.
- DANSINGER, M. L., TATSIONI, A., WONG, J. B., CHUNG, M. & BALK, E. M. 2007. Metaanalysis: the effect of dietary counseling for weight loss. *Annals of internal medicine*, 147, 41-50.

DATA PROTECTION ACT 2018. Data Protection Act 2018, 2018.

- DIN, N. U., MOORE, G. F., MURPHY, S., WILKINSON, C. & WILLIAMS, N. H. 2015. Health professionals' perspectives on exercise referral and physical activity promotion in primary care: Findings from a process evaluation of the National Exercise Referral Scheme in Wales. *Health Educ J*, 74, 743-757.
- DOBBIE, F., HISCOCK, R., LEONARDI-BEE, J., MURRAY, S., SHAHAB, L., AVEYARD, P.,
   COLEMAN, T., MCEWEN, A., MCROBBIE, H., PURVES, R. & BAULD, L. 2015.
   Evaluating Long-term Outcomes of NHS Stop Smoking Services (ELONS): a
   prospective cohort study. *Health Technol Assess*, 19, 1-156.
- DONABEDIAN, A. 2002. An introduction to quality assurance in health care, Oxford University Press.
- ELLS, L., WATSON, P., CARLEBACH, S., O'MALLEY, C., JONES, D., MACHAIRA, T.,
  WHITTAKER, V., CLEMENTS, H., WALKER, P., NEEDHAM, K., SUMMERBELL,
  C., COULTON, V. & ARAUJO-SOARES, V. 2018. A mixed method evaluation of
  adult tier 2 lifestyle weight management service provision across a county in
  Northern England. *Clinical Obesity*, 8, 191-202.
- EVANS, H. & BUCK, D. 2018. Tackling multiple unhealthy risk factors: Emerging lessons from practice.
- FAT, L. N., SCHOLES, S. & JIVRAJ, S. 2017. The relationship between drinking pattern, social capital, and area-deprivation: Findings from the health survey for England. *Journal of Studies on Alcohol and Drugs*, 78, 20-29.
- FENG, X., GIROSI, F. & MCRAE, I. S. 2014. People with multiple unhealthy lifestyles are less likely to consult primary healthcare. BMC Family Practice, 15.
- FOROUZANFAR, M. H., AFSHIN, A., ALEXANDER, L. T., ANDERSON, H. R., BHUTTA, Z. A., BIRYUKOV, S., BRAUER, M., BURNETT, R., CERCY, K., CHARLSON, F. J., COHEN, A. J., DANDONA, L., ESTEP, K., FERRARI, A. J., FROSTAD, J. J., FULLMAN, N., GETHING, P. W., GODWIN, W. W., GRISWOLD, M., HAY, S. I.,

KINFU, Y., KYU, H. H., LARSON, H. J., LIANG, X., LIM, S. S., LIU, P. Y., LOPEZ, A. D., LOZANO, R., MARCZAK, L., MENSAH, G. A., MOKDAD, A. H., MORADI-LAKEH, M., NAGHAVI, M., NEAL, B., REITSMA, M. B., ROTH, G. A., SALOMON, J. A., SUR, P. J., VOS, T., WAGNER, J. A., WANG, H., ZHAO, Y., ZHOU, M., AASVANG, G. M., ABAJOBIR, A. A., ABATE, K. H., ABBAFATI, C., ABBAS, K. M., ABD-ALLAH, F., ABDULLE, A. M., ABERA, S. F., ABRAHAM, B., ABU-RADDAD, L. J., ABYU, G. Y., ADEBIYI, A. O., ADEDEJI, I. A., ADEMI, Z., ADOU, A. K., ADSUAR, J. C., AGARDH, E. E., AGARWAL, A., AGRAWAL, A., KIADALIRI, A. A., AJALA, O. N., AKINYEMIJU, T. F., AL-ALY, Z., ALAM, K., ALAM, N. K. M., ALDHAHRI, S. F., ALDRIDGE, R. W., ALEMU, Z. A., ALI, R., ALKERWI, A. A., ALLA, F., ALLEBECK, P., ALSHARIF, U., ALTIRKAWI, K. A., MARTIN, E. A., ALVIS-GUZMAN, N., AMARE, A. T., AMBERBIR, A., AMEGAH, A. K., AMINI, H., AMMAR, W., AMROCK, S. M., ANDERSEN, H. H., ANDERSON, B. O., ANTONIO, C. A. T., ANWARI, P., ÄRNLÖV, J., ARTAMAN, A., ASAYESH, H., ASGHAR, R. J., ASSADI, R., ATIQUE, S., AVOKPAHO, E. F. G. A., AWASTHI, A., QUINTANILLA, B. P. A., AZZOPARDI, P., BACHA, U., et al. 2016. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. The Lancet, 388, 1659-1724.

- GIDLOW, C., JOHNSTON, L. H., CRONE, D. & JAMES, D. 2005. Attendance of exercise referral schemes in the UK: A systematic review. *Health Education Journal*, 64, 168-186.
- GLASGOW, R. E., HARDEN, S. M., GAGLIO, B., RABIN, B., SMITH, M. L., PORTER, G.
  C., ORY, M. G. & ESTABROOKS, P. A. 2019. RE-AIM Planning and Evaluation
  Framework: Adapting to New Science and Practice With a 20-Year Review. *Frontiers in Public Health,* 7.
- GUNILLASDOTTER, V., ANDRÉASSON, S., JIRWE, M., EKBLOM, Ö. & HALLGREN, M.
  2022. Effects of exercise in non-treatment seeking adults with alcohol use disorder:
  A three-armed randomized controlled trial (FitForChange). *Drug and Alcohol Dependence*, 232, 109266.
- HARDEN, S. M., SMITH, M. L., ORY, M. G., SMITH-RAY, R. L., ESTABROOKS, P. A. & GLASGOW, R. E. 2018. RE-AIM in Clinical, Community, and Corporate Settings:

Perspectives, Strategies, and Recommendations to Enhance Public Health Impact. *Front Public Health*, 6, 71.

- HAUGHTON, C. F., SILFEE, V. J., WANG, M. L., LOPEZ-CEPERO, A. C., ESTABROOK,
  D. P., FRISARD, C., ROSAL, M. C., PAGOTO, S. L. & LEMON, S. C. 2018.
  Racial/ethnic representation in lifestyle weight loss intervention studies in the United States: A systematic review. *Preventive Medicine Reports*, 9, 131-137.
- HEATHER, N. 2012. Can screening and brief intervention lead to population-level reductions in alcohol-related harm? *Addiction Science & Clinical Practice*, 7, 15.
- HENDERSON, H., EVANS, A., ALLEN-COLLINSON, J. & SIRIWARDENA, A. 2018.
  Henderson, H, Evans, A B, Allen-Collinson, J, Siriwardena, A N (2018) 'Wild and Woolly' world of Exercise Referral Schemes: Contested interpretations of an exercise as medicine programme, Qualitative Research in Sport, Exercise and Health, 10 (4): 505-523. *Qualitative Research in Sport, Exercise & Health,* 10, 505-523.
- HOLTROP, J. S., RABIN, B. A. & GLASGOW, R. E. 2018. Qualitative approaches to use of the RE-AIM framework: rationale and methods. *BMC Health Services Research*, 18, 177.
- JACKSON, M. C., DAI, S., SKEETE, R. A., OWENS-GARY, M., CANNON, M. J., SMITH, B.
   D., JABRAH, R., MASALOVICH, S. E. & SOLER, R. E. 2020. An Examination of Gender Differences in the National Diabetes Prevention Program's Lifestyle Change Program. *The Diabetes Educator*, 46, 580-586.
- JOHNS, D. J., HARTMANN-BOYCE, J., JEBB, S. A. & AVEYARD, P. 2014. Diet or exercise interventions vs combined behavioral weight management programs: a systematic review and meta-analysis of direct comparisons. *J Acad Nutr Diet*, 114, 1557-68.
- JOHNSON, M., JACKSON, R., GUILLAUME, L., MEIER, P. & GOYDER, E. 2010. Barriers and facilitators to implementing screening and brief intervention for alcohol misuse: a systematic review of qualitative evidence. *Journal of Public Health*, 33, 412-421.
- JONG, M. A. J. G., WAGEMAKERS, A. & KOELEN, M. A. 2020. "We Don't assume that everyone has the same idea about health, do we?" Explorative study of citizens' perceptions of health and participation to improve their health in a low socioeconomic city district. *International Journal of Environmental Research and Public Health,* 17, 1-16.

- KHAW, K.-T., WAREHAM, N., BINGHAM, S., WELCH, A., LUBEN, R. & DAY, N. 2008.
   Combined Impact of Health Behaviours and Mortality in Men and Women: The EPIC-Norfolk Prospective Population Study. *PLOS Medicine*, 5, e12.
- KODNER, D. L. & SPREEUWENBERG, C. 2002. Integrated care: meaning, logic, applications, and implications--a discussion paper. *International journal of integrated care*, 2, e12-e12.
- KWAN, B. M., MCGINNES, H. L., ORY, M. G., ESTABROOKS, P. A., WAXMONSKY, J. A.
  & GLASGOW, R. E. 2019. RE-AIM in the Real World: Use of the RE-AIM
  Framework for Program Planning and Evaluation in Clinical and Community
  Settings. *Frontiers in Public Health*, 7.
- LEE, H. S., MERICLE, A. A., AYALON, L. & AREÁN, P. A. 2009. Harm reduction among atrisk elderly drinkers: A site-specific analysis from the multi-site Primary Care Research in Substance Abuse and Mental Health for Elderly (PRISM-E) study. *International Journal of Geriatric Psychiatry*, 24, 54-60.
- MALE, D., FERGUS, K. & YUFE, S. 2022. 'Weighing' Losses and Gains: Evaluation of the Healthy Lifestyle Modification After Breast Cancer Pilot Program. *Frontiers in Psychology*, 13.
- MCGUIRE, A. M., SEIB, C., PORTER-STEELE, J. & ANDERSON, D. J. 2019. The association between web-based or face-to-face lifestyle interventions on the perceived benefits and barriers to exercise in midlife women: Three-arm equivalency study. *Journal of Medical Internet Research,* 21.
- MICHIE, S., VAN STRALEN, M. M. & WEST, R. 2011. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, 6, 42.
- NAGELHOUT, G. E., HOGELING, L., SPRUIJT, R., POSTMA, N. & DE VRIES, H. 2017. Barriers and facilitators for health behavior change among adults from multi-problem households: A qualitative study. *International Journal of Environmental Research and Public Health,* 14.
- NEWTON, J. N., BRIGGS, A. D., MURRAY, C. J., DICKER, D., FOREMAN, K. J., WANG,
  H., NAGHAVI, M., FOROUZANFAR, M. H., OHNO, S. L., BARBER, R. M., VOS, T.,
  STANAWAY, J. D., SCHMIDT, J. C., HUGHES, A. J., FAY, D. F., ECOB, R.,
  GRESSER, C., MCKEE, M., RUTTER, H., ABUBAKAR, I., ALI, R., ANDERSON, H.
  R., BANERJEE, A., BENNETT, D. A., BERNABE, E., BHUI, K. S., BIRYUKOV, S.

M., BOURNE, R. R., BRAYNE, C. E., BRUCE, N. G., BRUGHA, T. S., BURCH, M., CAPEWELL, S., CASEY, D., CHOWDHURY, R., COATES, M. M., COOPER, C., CRITCHLEY, J. A., DARGAN, P. I., DHERANI, M. K., ELLIOTT, P., EZZATI, M., FENTON, K. A., FRASER, M. S., FURST, T., GREAVES, F., GREEN, M. A., GUNNELL, D. J., HANNIGAN, B. M., HAY, R. J., HAY, S. I., HEMINGWAY, H., LARSON, H. J., LOOKER, K. J., LUNEVICIUS, R., LYONS, R. A., MARCENES, W., MASON-JONES, A. J., MATTHEWS, F. E., MOLLER, H., MURDOCH, M. E., NEWTON, C. R., PEARCE, N., PIEL, F. B., POPE, D., RAHIMI, K., RODRIGUEZ, A., SCARBOROUGH, P., SCHUMACHER, A. E., SHIUE, I., SMEETH, L., TEDSTONE, A., VALABHJI, J., WILLIAMS, H. C., WOLFE, C. D., WOOLF, A. D. & DAVIS, A. C. 2015. Changes in health in England, with analysis by English regions and areas of deprivation, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*, 386, 2257-74.

NHS DIGITAL 2021. Statistics on NHS Stop Smoking Services in England - April 2020 to March 2021.

NHS DIGITAL 2022. Integrated Care Boards in England. In: MAP, I. C. B. I. E.-. (ed.).

- NICE 2014. Weight management: lifestyle services for overweight or obese adults.
- O'DONNELL, A., ANDERSON, P., NEWBURY-BIRCH, D., SCHULTE, B., SCHMIDT, C., REIMER, J. & KANER, E. 2014. The impact of brief alcohol interventions in primary healthcare: a systematic review of reviews. *Alcohol Alcohol*, 49, 66-78.
- OFFICE FOR HEALTH IMPROVEMENT AND DISPARITIES 2021a. Local Authority Health Profiles: Behaviour Risk Factors.
- OFFICE FOR HEALTH IMPROVEMENT AND DISPARITIES 2021b. Public health profiles: Over 14 units.
- OFFICE FOR HEALTH IMPROVEMENT AND DISPARITIES 2021c. Public health profiles: Physical Inactivity.
- OH, B., YI, G.-H., HAN, M. K., KIM, J. S., LEE, C. H., CHO, B. & KANG, H. C. 2018. Importance of active participation in obesity management through mobile health care programs: substudy of a randomized controlled trial. *JMIR mHealth and uHealth,* 6, e8719.

OHID 2021. NHS Health Checks: applying All Our Health. In: OHID (ed.).
ONS. 2022. Deaths with COVID-19 on the death certificate [Online]. Available: <u>https://coronavirus.data.gov.uk/details/deaths?areaType=nation&areaName=England</u> [Accessed].

PORTER, M. E. 2010. What is value in health care. N Engl J Med, 363, 2477-2481.

- PRICE, C. P. & ST JOHN, A. 2019. The value proposition for point-of-care testing in healthcare: HbA1c for monitoring in diabetes management as an exemplar.
   Scandinavian Journal of Clinical and Laboratory Investigation, 79, 298-304.
- RAO, R. T. 2020. Alcohol and public mental health for older people: 20 years of UK policy change. *Journal of Public Mental Health*, 19, 231-239.
- RASMUSSEN, M., HOVHANNISYAN, K., ADAMI, J. & TØNNESEN, H. 2021. Characteristics of Patients in Treatment for Alcohol and Drug Addiction Who Succeed in Changing Smoking, Weight, and Physical Activity: A Secondary Analysis of an RCT on Combined Lifestyle Interventions. *European Addiction Research*, 27, 123-130.
- ROYAL COLLEGE OF PSYCHIATRISTS 2018. Our Invisible Addicts (2nd edition, CR211 Mar 2018).
- SCHLICHTHORST, M., SANCI, L. A., PIRKIS, J., SPITTAL, M. J. & HOCKING, J. S. 2016.
  Why do men go to the doctor? Socio-demographic and lifestyle factors associated with healthcare utilisation among a cohort of Australian men. *BMC Public Health*, 16, 81-90.
- SVETKEY, L. P., CLARK, J. M., FUNK, K., CORSINO, L., BATCH, B. C., HOLLIS, J. F.,
  APPEL, L. J., BRANTLEY, P. J., LORIA, C. M., CHAMPAGNE, C. M., VOLLMER,
  W. M. & STEVENS, V. J. 2014. Greater weight loss with increasing age in the
  weight loss maintenance trial. *Obesity (Silver Spring)*, 22, 39-44.
- SWEET, S. N., GINIS, K. A. M., ESTABROOKS, P. A. & LATIMER-CHEUNG, A. E. 2014. Operationalizing the RE-AIM framework to evaluate the impact of multi-sector partnerships. *Implementation Science*, 9, 74.
- SZINAY, D., JONES, A., CHADBORN, T., BROWN, J. & NAUGHTON, F. 2020. Influences on the Uptake of and Engagement With Health and Well-Being Smartphone Apps: Systematic Review. J Med Internet Res, 22, e17572.

VANGEN, S. & HUXHAM, C. 2000. What makes partnerships work?

VENDITTI, E. M., WYLIE-ROSETT, J., DELAHANTY, L. M., MELE, L., HOSKIN, M. A. & EDELSTEIN, S. L. 2014. Short and long-term lifestyle coaching approaches used to

79

## Page 155

address diverse participant barriers to weight loss and physical activity adherence. International Journal of Behavioral Nutrition and Physical Activity, 11.

- VOHS, K. D. & HEATHERTON, T. F. 2000. Self-Regulatory Failure: A Resource-Depletion Approach. *Psychological Science*, 11, 249-254.
- WAGNER, C. V., KNIGHT, K., STEPTOE, A. & WARDLE, J. 2007. Functional health literacy and health-promoting behaviour in a national sample of British adults. *Journal of Epidemiology and Community Health,* 61, 1086-1090.
- WEST, R. & MICHIE, S. A brief introduction to the COM-B Model of behaviour and the PRIME Theory of motivation. *Qeios*.
- WHO. 2021. Noncommunicable diseases Fact Sheet [Online]. Available: <a href="https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases#:~:text=Risk%20factors,-">https://www.who.int/news-room/fact-sheets/detail/noncommunicable- diseases#:~:text=Risk%20factors,- Modifiable%20behavioural%20risk&text=Modifiable%20behaviours%2C%20such%20 as%20tobacco,increase%20the%20risk%20of%20NCDs. [Accessed 31/05/2022 2022].
- WILLIAMS, N. H., HENDRY, M., FRANCE, B., LEWIS, R. & WILKINSON, C. 2007.
   Effectiveness of exercise-referral schemes to promote physical activity in adults: systematic review. *Br J Gen Pract*, 57, 979-86.

## **List of Appendices**

## Appendix A: Health Research Authority (HRA) Approval

Ymchwil lech a Gofal Cymr Health and C Research Wa	hyd NHS Nare Health Research Nes Authority
Dr Ros Kane	
Associate Professor	Email: approvals@hra.nhs.ut
University of Lincoln	Torre approval power
Brayford Pool	
Lincoln	
LN6 7TS	
22 December 2020	
Dear Dr Kane	HRA and Health and Care Research Wales (HCRW) Approval Letter
Study title:	One You LincoInshire (OYL) mixed-method study:
	Evaluation of an integrated community based healthy
	lifestyle behaviour change service using the RE-AIM
	framework.
IRAS project ID:	289313
Protocol number:	20021
REC reference:	20/PR/0972
Sponsor	University of Lincoln
I am pleased to confirm	n that HRA and Health and Care Research Wales (HCRW) Approval
	the second s

## Appendix B: Sampling and recruitment framework

Participant Group	
	Size
GP Staff (GPs, social prescribers, nurses)	4
Slimming World/Weight Watchers and Get Healthy Get Active Subcontractors	
One Year No Beer, 28 Days	
Adult Weight Management Lead, Alcohol Lead, Physical Activity Lead, Smoking Cessation Lead	
Senior Triage Officer, Referral Generation Lead, Health Coach Team Lead	
Adult Weight Practitioner, Man V Fat Coach	3

Triage Worker, Referral Generation Officer	
Physical Activity Coach, Health Coaches	
Stop Smoking Advisor, Pharmacy Facilitator	
Total	30

Participant Group	Sample Size
Carer	2
BAME (Black and minority Ethnic)	2
Long Term Health Condition	2
LCC (Lincolnshire County Council) employees	2
Clients not motivated	2
Clients not eligible for service	2
Clients eligible but do not take up service	2
Tier 1 clients	2
Tier 2 clients	2
Low need support	2
Medium need support	2
High need support	2
Drop out clients	2
Clients that did not maintain sustained change	2
Clients that did maintain sustained change	2
Total	30

This page is intentionally left blank