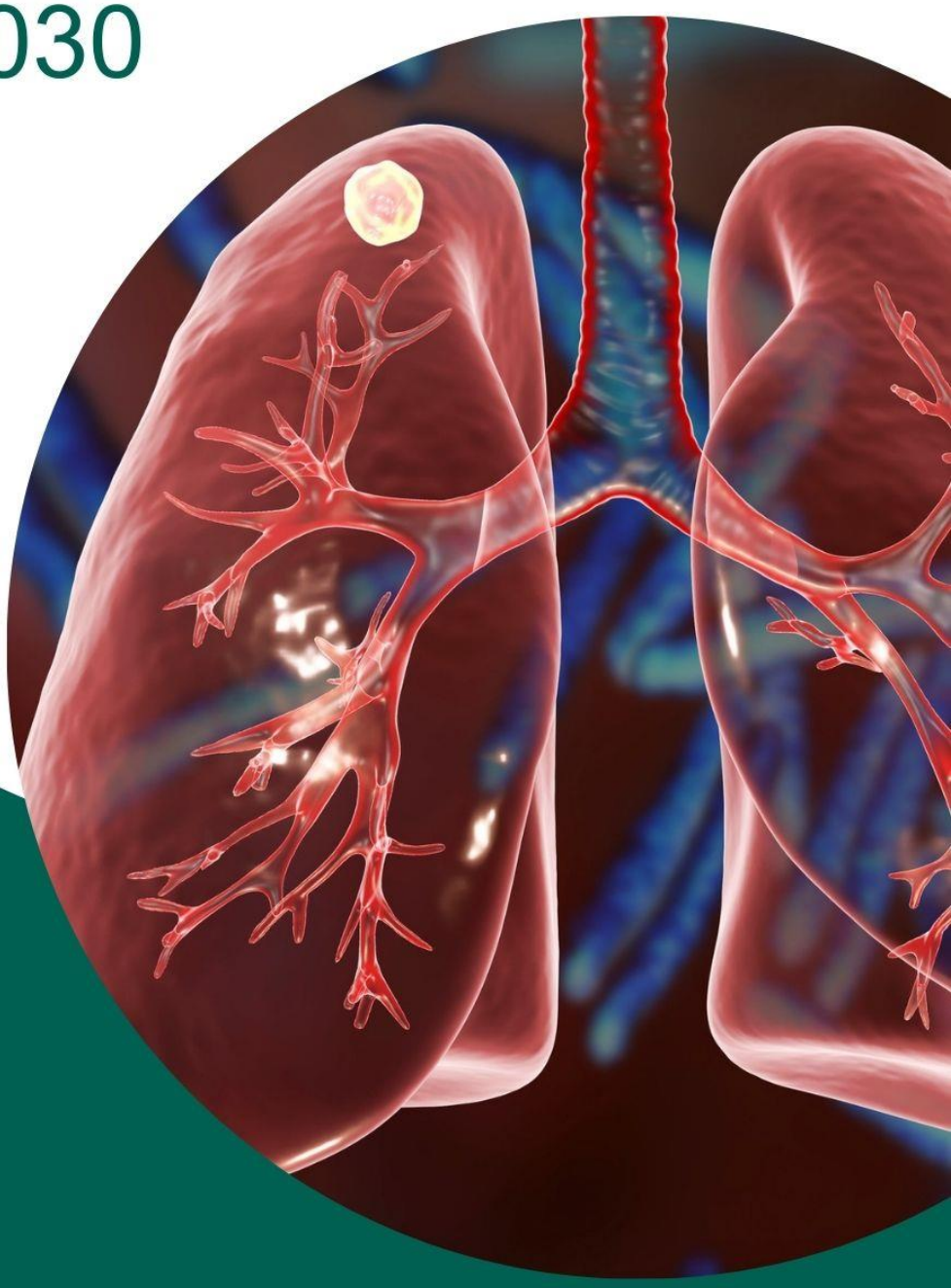
Striving to End Tuberculosis: A Strategy for Ireland

2024 - 2030



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Striving to End Tuberculosis – A Strategy for Ireland 2024 - 2030

outlines the priorities, objectives, actions and enablers to end tuberculosis in Ireland.

Contents

Abbreviations

BCG	Bacillus Calmette–Guérin
DOT	Directly observed therapy
HPSC	Health Protection Surveillance Centre
HSE	Health Service Executive
HIV	Human immunodeficiency virus
LTBI	Latent tuberculosis infection
MHSU	Mobile health and screening unit
TB	Tuberculosis
USP	Under-served population
VOT	Video-observed therapy
WHO	World Health Organization

Foreword

Striving to End Tuberculosis – A Strategy for Ireland 2024 - 2030 seeks to create the conditions needed to eliminate tuberculosis (TB) in Ireland. In the 2015 **End TB Strategy**, the World Health Organization outlined a vision for a world free of TB. To achieve this, ambitious targets were set for every country to reach by 2030. These are an 80% reduction in TB incidence, a 90% reduction in TB deaths and the elimination of catastrophic costs for TB-affected households. By developing this strategy, the National TB Advisory Committee have sought to develop a shared vision for the future of TB care in Ireland. Launching the strategy on World TB Day 2024 reminds us we cannot wait for the perfect time, we must act on TB now.

Our approach will have to be agile, collaborative, innovative, inclusive and person-centred to realise our strategic vision. Given TB is increasingly being seen among vulnerable and under-served populations in Ireland, we must remove any barriers to accessing TB care to reduce health inequities. This approach will ensure that people with TB have the best possible outcomes, a benefit to them but also protecting the wider population – in line with the *"No one is safe until everyone is safe"* principle.

The implementation of this strategy will rely on key enablers being in place – strong collaborative leadership, effective management, targeted communication, supportive information technology, appropriate resourcing and careful monitoring of our progress towards strategic goals.

We wish to acknowledge the contributions of all the members of the National TB Advisory Committee and all others who assisted in the preparation of the strategy. We look forward to working with colleagues to implement it.

Doing nothing is not an option but together we can achieve real positive change.

Ní neart go cur le Chéile – there is strength in unity.

Dr Mary O'Meara,
CPHM, Chair of the HSE National Tuberculosis Advisory Committee

Dr Éamonn O'Moore,
Director of National Health Protection, HSE

Executive Summary

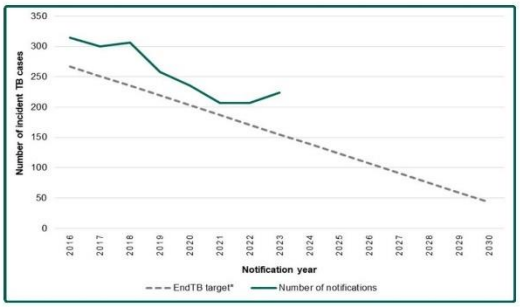
Global Context

In 2023, 10.6 million people developed tuberculosis (TB) and 1.3 million died with it. Left undetected and untreated, TB spreads and deaths from TB rise. Of all people with TB worldwide in 2023, more than one in every four went undetected. During COVID-19 pandemic, the substantial decline in the number of people treated for drug-resistant TB, the number of people receiving preventive TB treatment and global funding to fight TB have only worsened the global TB burden.

Irish Context

Although there has been a significant decline in the burden of TB in Ireland in recent decades, there were still 226 cases notified in 2023, equating to an incidence rate of 4.4 per 100,000. As a low-incidence country, Ireland should not only be aiming to achieve the World Health Organization (WHO) End TB Strategy target of an 80% reduction in TB incidence between 2015 and 2030 but should also be aspiring to eliminate TB (an incidence of TB of less than one per million population).

Figure 1 (across). TB notifications in Ireland, 2016-2023, and required trend to achieve the End TB Strategy target by 2030.



Vision: That Ireland achieves the WHO End TB Strategy goal of TB elimination by removing the barriers that people face in accessing diagnostic and therapeutic services, optimising outcomes for individuals with TB and wider society.

Aim: To achieve the WHO End TB Strategy target to reduce TB incidence in Ireland using a person-centred collaborative approach which reduces health inequities, strengthens prevention and early diagnosis, and improves care for those with TB.

Core Principles

- Health Equity
- Total Care
- Innovative and Agile Working
- Collaboration

Priority 1 Social Determinants	Priority 2 Prevention	Priority 3 Detection	Priority 4 Treatment and Care	Priority 5 Workforce Planning	Priority 6 Understanding TB

Enablers:

- Leadership
- Effective Management
- Effective Communication
- Information Technology Support
- Resourced Implementation Plan
- Monitoring and Evaluation

Objective 1.1 To improve the understanding of the social determinants of TB across sectors.
Objective 1.2 To resource the national TB programme so that it can fully meet the needs of people with TB from USPs.
Objective 2.1 To improve the surveillance of TB disease.
Objective 2.2 To strengthen the prevention of TB among at-risk groups.
Objective 2.3 To strengthen contact investigation and management during active case finding.
Objective 2.4 To introduce a selective BCG programme.
Objective 2.5 To strengthen collaboration with European and other international colleagues to control TB.
Objective 2.6 To integrate a One Health approach into the national TB programme.
Objective 3.1 To reduce the time taken before people with TB present to health care services.
Objective 3.2 To reduce the time taken for patients with TB to be diagnosed and initiated on appropriate treatment after their first contact with health care services.
Objective 4.1 To provide holistic care for people with TB.
Objective 4.2 To provide post-TB care that can lessen the long-term impacts of the physical, mental and social sequelae of TB.
Objective 5.1 To strengthen workforce planning to meet the needs of the national TB programme.
Objective 6.1 To enhance the knowledge and awareness of the risks of TB to public health among decision makers in the wider health system and government.
Objective 6.2 To improve the knowledge and awareness of TB among at-risk groups and health and social care providers.

Stakeholders:

- National TB Advisory Committee
- Patient representatives
- HSE Public Health
- Irish Mycobacteria Reference Laboratory
- Acute and community health care providers
- Government departments
- Local authorities
- Non-governmental organisations

38 Actions for Implementation

Introduction

Tuberculosis – A Global Health Challenge

In 2023, 10.6 million people developed tuberculosis (TB) and 1.3 million died with it.[1] Left undetected and untreated, TB spreads and deaths from TB rise.[1] Of all people with TB worldwide in 2023, more than one in every four went undetected.[1] During the COVID-19 pandemic, the substantial decline in the number of people treated for drug-resistant TB, the number of people receiving preventive TB treatment and global funding to fight TB have only worsened the global TB burden.[2-4] In this context, the **United Nations General Assembly High-level Meeting on the Fight Against TB** in 2023 provided the opportunity to act on the global challenge of TB with bolder political commitment.[5] At this meeting, a new political declaration on TB was adopted by the member states including Ireland. It consisted of new targets and commitments with a focus on reducing health inequities, ensuring accessible person-centred TB prevention, diagnosis and treatment, building the workforce capacity, multi-sectoral approaches and advancing innovations (**Appendix 1**).

Ireland – Striving for TB Elimination

In 2023, there were 57 countries with a low incidence of TB (less than 10 per 100,000), of which Ireland was one. TB epidemiology in most low-incidence countries is characterised by a low rate of transmission in the general population, occasional outbreaks, a majority of TB cases being generated from progression of latent TB infection (LTBI), concentration in certain vulnerable populations, and challenges posed by cross-border migration.[6] Although there has been a significant decline in the burden of TB in Ireland in recent decades, there were still 226 cases notified in 2023, equating to an incidence rate of 4.4 per 100,000.[7] As a low-incidence country, Ireland should not only be aiming to achieve the **World Health Organization (WHO) End TB Strategy** target of an 80% reduction in TB incidence between 2015 and 2030 but should also be aspiring to eliminate TB (an incidence of TB of less than one per million population).[6] Based on the most recent **Census** population, TB elimination equates to just five cases of TB being notified annually. However, nationally, the pace of decline of TB has slowed in the last five years indicating that achieving TB elimination will require a strategic collaborative effort. Fortunately, commitments to deliver a universal health service for all through **Sláintecare** and a reformed, agile and strengthened health protection service through the **Health Service Executive (HSE) Health Protection Strategy** mean now is the opportune time for Ireland's first strategy to address TB.

Challenges to TB Elimination in Ireland

Eliminating TB from Ireland is a task which is made more complex by the presence of numerous challenges which can interact and amplify each other. Although there have been several reports over the previous twenty years making recommendations to strengthen TB prevention and control in Ireland, many have not been implemented in full or at all, for a variety of reasons relating to resources and infrastructure of health and other services. Securing sustained commitment, funding and stewardship are well recognised challenges to eliminating TB in many low-incidence countries.[6] Scaling up programmatic LTBI management to reduce the burden of TB on selected high-risk groups will be a significant undertaking.[6,8] The number of vulnerable migrants at risk of TB coming into Ireland is likely to increase due to global pressures such as war (e.g., in Ukraine, Sudan, Yemen, Gaza), food insecurity and climate change. Addressing the concentration of TB in the most vulnerable groups and the special needs of migrants will be challenging.[6]

Increasingly, people with TB are from under-served populations (USPs), those whose social circumstances, or those of their parents or carers, make it difficult to recognise the clinical onset of TB, access diagnostic and treatment services, self-administer treatment or parent/carer administered therapy; or attend regular appointments for clinical follow up.[9] Providing diagnostic and therapeutic interventions alone will not necessarily address their needs nor strengthen our national health security. A coordinated multisectoral 'whole system' approach is needed.

Vision and Aim

Vision

That Ireland achieves the **WHO End TB Strategy** goal of TB elimination by removing the barriers that people face in accessing diagnostic and therapeutic services, optimising outcomes for individuals with TB and wider society.

Aim

To achieve the **WHO End TB Strategy** target to reduce TB incidence in Ireland using a person-centred collaborative approach which reduces health inequities, strengthens prevention and early diagnosis, and improves care for those with TB.

In order to achieve the nationally applicable WHO End TB target of an 80% reduction in TB incidence between 2015 and 2030[10], an annual decrease in new TB notifications of 6% is needed (**Figure 1**). To achieve this, the annual reduction in TB cases in Ireland must increase.

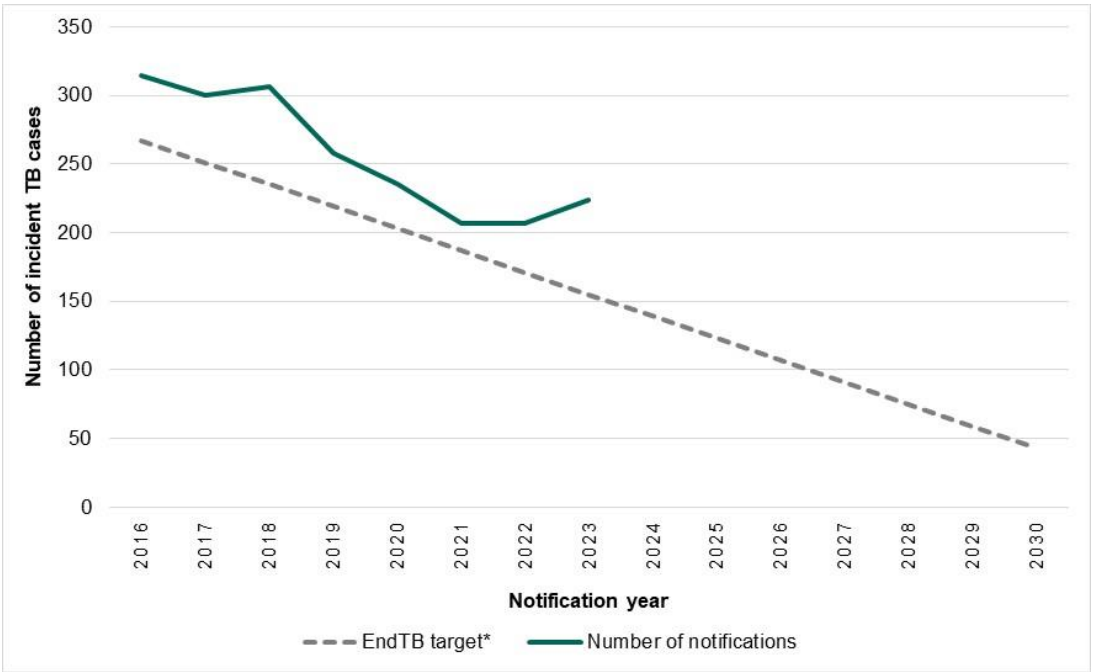


Figure 1. TB notifications in Ireland, 2016-2023, and required trend to achieve the End TB Strategy target by 2030.
Projections based on case numbers reported in the Health Protection Surveillance Centre (HPSC) Annual Reports on the Epidemiology of TB.[11]

Achieving Our Vision

The vision to eliminate TB is ambitious. It will be difficult, but the challenges are not insurmountable. To reduce the impact of TB on USPs, providing intensive, innovative, and tailored approaches to ensure all their care needs are met (*total care*) are important. The COVID-19 pandemic demonstrated the importance of advancing *innovation* to tackle TB. For example, advances in digital health, remote service provision and the rapid identification of contacts applied during the COVID-19 pandemic can be replicated for TB, including supporting directly observed therapy (DOT) through online or mobile phone applications – video-observed therapy (VOT). Our responses must be agile, capable of responding to address emergent circumstances, to save lives, reduce harm, support care and reduce the risk to public health and promote health equity - *no one is safe until everyone is safe*. The COVID-19 pandemic has demonstrated that countries—governments, civil society, and the private sector working collaboratively are capable of mobilising robust responses to public health crises. To achieve our vision to eliminate TB in Ireland, the principles guiding our strategic approach are:

1. Health equity
2. Total care
3. Innovative and agile working
4. Collaboration

These principles are already evident in many of the activities undertaken by the health professionals working to end TB as part of our national TB programme. Some exemplars of good practice are described throughout this strategy to illustrate how embracing these principles can help meet the strategic objectives. For others to follow these exemplars and to achieve our vision, the strategic enablers must be in place.

Strategic Framework

Striving to End Tuberculosis – A Strategy for Ireland 2024 - 2030 is a framework comprised of priorities, objectives, actions, enablers and guiding principles. The framework serves as a conceptual guide as to how our strategic aim will be achieved.

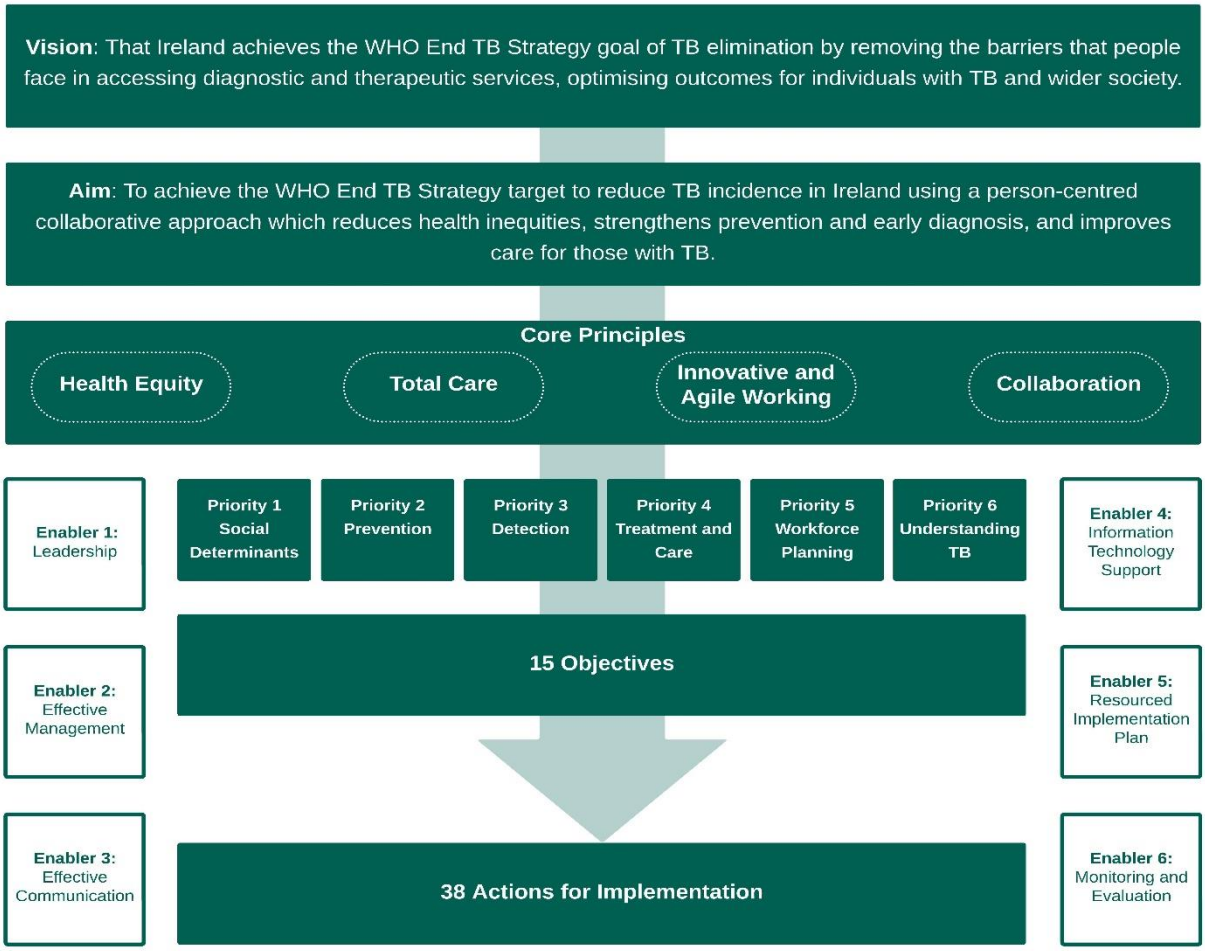


Figure 2. Striving to End Tuberculosis – A Strategy for Ireland 2024 - 2030 Framework

Priority 1. To Address the Social Determinants of TB

Targeting the social determinants of TB will be important to reduce its impact on socially excluded people, reducing health inequities. This requires improving our understanding of the social determinants of TB not only in the health sector but across multiple sectors and working collaboratively to address them.

Objective 1.1 To improve the understanding of the social determinants of TB across sectors.

Objective 1.2 To resource the national TB programme so that it can fully meet the needs of people with TB, especially from USPs.

See **Table 2** for the **actions** that will be taken to achieve these objectives.

Good Practice Exemplar:

Safetynet

Safetynet is a medical charity that aims to provide primary health care to USPs including people experiencing homelessness and increasingly the global homeless. Over the last year, this has included people fleeing the war in Ukraine and increasing numbers of people fleeing war and persecution in other parts of the world.

Safetynet's Mobile Health and Screening Unit (MHSU) works in partnership with HSE Social Inclusion and comprises a team of doctors, nurses, a radiographer and interpreters that aims to add capacity to current health services, identify and treat health problems and reduce threats from communicable diseases. Taking an innovative and agile approach, a large vehicle equipped as a mobile medical clinic, (including a mobile X-ray and consultation room) travels to various locations and collaborates with existing service providers operating in each local area with a view to integrating service users into local services.

MHSU provides health screening and medical assessments for relocated refugees, health assessments and screening for newly arrived asylum seekers -screening for communicable disease such as TB, blood borne viruses and sexually transmitted infections. Safetynet works closely with HSE Public Health to facilitate contact tracing investigation in vulnerable populations following notification of an infectious TB case. Recent examples include assisting the HSE Department of Public Health Dublin and North East in contact tracing following notification of a cluster of cases in north Dublin amongst people living in homelessness. These cases were linked on whole-genome sequencing.

Priority 2. To Improve the Prevention of TB

To end TB, prevention is crucial.[6] In low-incidence countries, a large proportion of TB cases occur among recent migrants and the majority of cases arise from the reactivation of LTBI.[6] In addition, TB can be concentrated in vulnerable population groups.[6] Therefore, to reduce inequity, these groups should be the focus of prevention activities and these activities must be person-centred.[6] Surveillance, selective Bacillus Calmette-Guérin (BCG) vaccination, contact tracing and programmatic management of LTBI are key prevention activities.[6,8]

Objective 2.1 To improve the surveillance of TB disease.

Objective 2.2 To strengthen the prevention of TB among at-risk groups.

Objective 2.3 To strengthen contact investigation and management during active case finding.

Objective 2.4 To introduce a selective BCG vaccination programme.

Objective 2.5 To strengthen collaboration with European and other international colleagues to control TB.

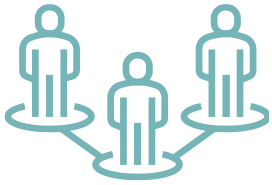
Objective 2.6 To integrate a One Health approach into the national TB programme.

See **Table 2** for the **actions** that will be taken to achieve these objectives.

Good Practice Exemplar:

Investigation of the Prevalence of LTBI in a Remand Prison

The Irish Prison Service, St James' Hospital multidisciplinary TB team and HSE Public Health collaborated on a pilot project to determine the prevalence of LTBI in a remand prison and the risk factors associated with same. A cohort study was carried out in 2022 on male prisoners in a remand setting. One hundred and eleven prisoners were screened using interferon-gamma release assay. The prevalence of LTBI among this cohort was 9%, higher than estimated in a low prevalence TB setting. Risk factors examined were age, addiction, country of origin, previous prison stay, the prevalence of blood-borne viruses, smoking and diabetes mellitus. Prisoners born outside Ireland were twice as likely to have LTBI. In low-incidence countries, such as Ireland, prisons provide a sub-population that should be screened for LTBI to mitigate the community's risk of active TB disease and we recommend this pilot should now be considered for roll out across the Irish Prison Service.



Priority 3. To Improve the Detection of People with TB

Delayed TB diagnosis and treatment is associated with more severe disease, greater mortality, and a risk of ongoing transmission.[12,13,14] In Ireland, the length of time people with TB are symptomatic and undiagnosed in the community can be unacceptably long.[15,16] Addressing this requires collaboration, total care and innovative and agile working.

Objective 3.1 To reduce the time taken before people with TB present to health care services.

Objective 3.2 To reduce the time taken for patients with TB to be diagnosed and initiated on appropriate treatment after their first contact with health care services.

See **Table 2** for the **actions** that will be taken to achieve these objectives.

Good Practice Exemplar:

A Prolonged Complex Outbreak of TB Associated with a Day Centre for Adults with Intellectual Disabilities

When responding to a prolonged complex outbreak of TB in a day centre for adults with intellectual disability, the public health team took an agile person-centred approach to meet the needs of a vulnerable population group. By screening contacts on site and in the presence of their next of kin, the team could ensure their comfort. Working collaboratively with the clinic staff ensured screening was effective, timely and met the needs of their service users. Clear and consistent communication, including regular on the ground meetings, with service-users, families and staff was key in building trust, achieving a high rate of participation and ultimately a successful screening intervention.

Priority 4. To Improve Care for People with TB

Symptoms of TB may not be readily recognised by health care providers or patients.[6] People with TB may be vulnerable and have co-existing problems such as alcohol or substance misuse making it difficult for them to engage in the prolonged treatment courses needed to successfully cure TB.[6] TB can be associated with depression[17], malnutrition[18], cardiovascular disease and chronic lung disease[19], co-morbidities which TB services must be able to recognise and address. Cultural and language issues can be a barrier to providing care for people with TB.[20]

Unless patients with TB complete treatment, they may continue to suffer from its effects and potentially transmit it to others. Therefore, TB services must strive to overcome the challenges in TB care and provide total care for all people with TB, taking an innovative and agile approach to meet the needs of USPs in particular.

Objective 4.1 To provide holistic care for people with TB.

Objective 4.2 To provide post-TB care that can lessen the long-term impacts of the physical, mental and social sequelae of TB.

See **Table 2** for the **actions** that will be taken to achieve these objectives.

Good Practice Exemplar:

Video-Observed Therapy to Enable Total Care

At St James' Hospital TB service, a patient with pulmonary TB was unable to engage with DOT. The patient was living in homeless accommodation and had started a new job with long working hours and a considerable commute. The patient was allocated a key worker in the homeless services and a letter of support was provided by the TB team to assist him in securing more stable accommodation. The patient benefited from participating in an ongoing trial on VOT in St James' Hospital. The patient completed six months of TB treatment via VOT and had a 100% compliance rate. The use of VOT allowed the TB clinical nurse specialist to observe the patient's compliance with treatment while in addition assisting the patient's return to gainful employment. In addition to his new employment, this patient eventually secured his own accommodation. This was person-centred TB care.

Priority 5. To Strengthen the Multidisciplinary TB Workforce

The complexity of TB cases is increasing.[6] Social issues, multi-drug resistance, co-infection and an ever-changing health care environment with new technology, innovations, health service reform and competing demands all require staff to adapt to work in agile ways – across disciplines and across service boundaries. In low-incidence countries, maintaining staffing levels for TB control can be challenging.[6] In Ireland, a review of staffing found that the strengthening of TB multidisciplinary teams was needed, specifically highlighting the need for case managers and outreach workers.[21]

Objective 5.1 To strengthen workforce planning to meet the needs of the national TB programme.

See **Table 2** for the **actions** that will be taken to achieve these objectives.

Good Practice Exemplar:
St James' Hospital TB Multidisciplinary Team Meeting

Each week a multidisciplinary team meeting takes place by video link hosted by St James' Hospital. The attendees include respiratory consultants and their team, consultant microbiologists and senior laboratory staff, hospital pharmacists, medical and nursing staff from the Department of Public Health and a senior epidemiologist from HPSC. This forum facilitates the sharing of information between specialities, adapting a patient-centred approach. New diagnostic methods (e.g. GeneXpert ultra technology for drug-susceptibility testing in those with rifampicin resistance), appropriate treatment for each patient, barriers to treatment completion are identified and addressed. Information on individual cases also provides essential information for the public health investigation. This forum is open to clinicians and public health teams from around Ireland who are experiencing difficulties with individual cases or contact tracing. It is an exemplar of multidisciplinary team best practice.

Priority 6. To Improve TB Advocacy, Knowledge and Awareness

As TB declines to low levels, it can become unfamiliar to the public, those working in the health system and those at a high-level in government.[6] TB has been and still is a stigmatising disease in Ireland. Improving knowledge and awareness of TB will be important to progress towards TB elimination.[6] Among the public, improved knowledge and awareness may help reduce stigma and enable early presentation of those with TB to health care. Among health care professionals, improved knowledge and awareness may also reduce stigma and improve early recognition of TB. At a high-level, improved knowledge and awareness of TB may help generate a sustained political commitment to addressing it as a priority nationally and globally.[6]

Objective 6.1 To enhance the knowledge and awareness of the risks of TB to public health among decision makers in the wider health system and government.

Objective 6.2 To improve the knowledge and awareness of TB among at-risk groups and health and social care providers.

See **Table 2** for the **actions** that will be taken to achieve these objectives.

Good Practice Exemplar:

A Red Cross Programme to Improve the Knowledge and Awareness of TB Among At-Risk Groups

All prisons in Ireland have Red Cross volunteers in place as community advocates in all aspects of health and well-being. The values by which the Red Cross abide by are humanity, neutrality, impartiality, independence, voluntary service, unity, and universality.

Since 2009, people that are currently either on remand or are serving a sentence in prison are invited to complete an innovative Red Cross peer-peer health education and awareness programme. Many of those who complete the programme progress on to become Red Cross volunteers. Operational, health care and education staff within the prisons collaborate to effectively support the programme. In one prison, the Red Cross volunteers were instrumental in engaging others in the prison to become involved in a TB research study. The volunteers delivered information sessions about TB and the study to their peers prior to the study commencement. All of the Red Cross volunteers also participated in the study, enabling them to speak about their experience with others in the prison, helping to build engagement. This exemplar illustrates an innovative agile approach to reducing health inequity among a vulnerable group.

Strategic Actions

Achieving the strategic vision, aim and objectives will require a collaborative effort involving a wide range of stakeholders to deliver the strategic actions (**Table 2**). The National TB Advisory Committee, public health, HPSC, the Irish Mycobacteria Reference Laboratory, health care providers, patient representatives, government departments, local authorities and non-governmental organisations are just some of the stakeholders who will be required. The National TB Advisory Committee is committed to developing a detailed implementation plan to ensure these actions are delivered by 2030.

Table 2. Strategic Actions		
No.	**Action**	**Related Objectives**
1	Engage with key stakeholders to advocate and implement policies and actions that address the social determinants which increase the risk of TB.	1.1, 1.2
2	Update the 2016 Report on the Resources Required for TB Control[21] to account for the resources and associated funding needed to meet the strategic objectives.	1.1, 1.2
3	Improve the completeness, relevancy and use of surveillance and epidemiological data to inform local and national programmatic activities.	1.1, 1.2, 2.1, 2.2
4	Fully utilise whole-genome sequencing as an aid for surveillance and outbreak investigation locally, nationally and internationally.	2.1, 2.3
5	Participate in European and international whole-genome sequencing surveillance.	2.1, 2.3, 2.5
6	Standardise the approach to all contact tracing nationally.	2.1, 2.2, 2.3
7	To conduct a feasibility study of programmatic management of LTBI including its surveillance.	2.2, 2.3
8	Agree a comprehensive, adequately funded and resourced, inter-stakeholder implementation plan for the new-entrant immigrant LTBI management programme.	1.2, 2.1, 2.2
9	Improve screening among those at-risk of TB due to social risk factors (e.g., people in prisons), medical risk factors (e.g., people living with human immunodeficiency virus (HIV), and occupational exposures (e.g., abattoir workers).	1.1, 1.2, 2.1, 2.2, 3.1
10	Improve the targeted pre-employment screening for those entering high-risk occupations e.g., health care workers, prison officers.	1.1, 2.1, 2.2, 3.1

Table 2. Strategic Actions (Continued)		
No.	**Action**	**Related Objectives**
11	Agree and implement a comprehensive, adequately funded and resourced, inter-stakeholder selective BCG programme.	1.2, 2.2, 2.4
12	To engage with stakeholders to determine how a One Health approach could be integrated into TB prevention and control activities.	2.6
13	The National TB Advisory Committee will update the National Guidelines for the Prevention and Control of TB by the end of the 2024.	1.1, 2.1, 2.2, 2.3, 2.6, 3.1, 3.2, 4.1, 4.2, 5.1, 6.2
14	A cohort review process for the systematic review of cases and contact investigations will be established by the National TB Lead.	2.1, 2.2, 2.3, 4.1, 4.2
15	Invest in digital technology-based contact tracing systems for TB treatment and prevention, building on capabilities that were developed in response to COVID-19.	2.1, 2.2, 2.3
16	Establish a test and treat programme for USPs for both TB and LTBI that will involve outreach models and the use of rapid diagnostics as part of a multi-pathogen and non-communicable disease health screening programme.	1.2, 2.1, 2.2, 3.1, 3.2, 4.1
17	Raise awareness of TB and address stigma and misinformation.	1.1, 1.2, 2.2, 3.1, 3.2, 4.1, 4.2, 5.1
18	Provide health care providers with access to universal rapid diagnostics for TB.	1.2, 2.1, 2.2, 2.3, 3.2, 4.1
19	Strengthen education for clinicians and health care professionals in the use and performance of modern diagnostics for TB.	2.1, 3.2, 4.1, 6.2

Table 2. Strategic Actions (Continued)		
No.	**Action**	**Related Objectives**
20	Ensure all positive microbiology and histology specimens are notified directly to TB teams (which should comprise a public health and clinical specialist in TB).	2.1, 2.3, 3.2, 4.1
21	Advocate for universal health care access.	1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 4.14, 4.2
22	Improve the accessibility of multidisciplinary TB teams.	1.2, 2.2, 2.3, 3.1, 3.2, 4.1, 4.2
23	A national TB network to support TB care across Ireland will be established by the National TB Lead.	1.2, 2.1, 2.2, 2.3, 3.2, 4.1, 4.2, 5.1, 6.2
24	Strengthen the provision of interventions that support patient adherence such as DOT.	1.2, 4.2
25	Implement a national VOT programme.	1.2, 4.2
26	Develop peer-delivered patient support programmes as part of TB care.	1.2, 3.2, 4.1, 4.2, 5.1
27	Provide patients with shorter more tolerable treatment regimens (e.g. Bedaquiline, Pretomanid, and Linezolid) and ensure nationally there is adequate access to paediatric formulations of TB drugs.	4.1
28	Revisit Section 38 of the 1947 Health Act to ensure it effectively allows for TB control measures to be taken including the detention of non-adherent patients.	1.2, 2.2, 3.2, 4.1
29	Determine skills mix and capabilities required to provide TB services, undertake a gap analysis and develop a workforce implementation plan.	1.2, 2.3, 3.2, 4.1, 4.2, 5.1
30	Agree, nationally, a model of service and care delivery for TB Control to be implemented regionally (from prevention to post care delivery).	1.2, 2.1, 2.3, 3.2, 4.1, 4.2, 5.1

Table 2. Strategic Actions (Continued)		
No.	**Action**	**Related Objectives**
31	Undertake an education and training needs analysis and develop a multidisciplinary education plan for health service staff.	1.2, 2.1, 2.3, 3.2, 4.1, 4.2, 5.1
32	Develop a comprehensive information resource to support working with TB in USPs.	1.2, 2.1, 2.3, 3.2, 4.1, 4.2, 5.1
33	Review the need for formal education to support career pathways and specialist roles in TB control in Ireland.	1.2, 2.1, 2.3, 3.2, 4.1, 4.2, 5.1
34	Identify the training needs and employee development initiatives of the multidisciplinary team and employee development initiatives.	5.1
35	Develop, disseminate and deliver educational materials for the public, patients and health care providers.	1.2, 2.1, 2.3, 3.1, 3.2, 4.1, 4.2, 5.1, 6.1, 6.2
36	To support an annual national TB conference.	1.2, 2.1, 2.3, 3.1, 3.2, 4.1, 4.2, 5.1, 6.1, 6.2
37	Conduct a scoping exercise to establish research needs and priorities that are aligned with the strategic objectives.	6.1, 6.2
38	To consolidate a quality improvement approach throughout all TB prevention and control activities.	2.1, 2.2, 2.3, 3.1, 3.2, 4.1, 4.2

Strategic Enablers

1. Strong collaborative **leadership** at all levels, including national and local government and the HSE.

2. Effective **management** will be important given the breadth, complexity and scale of actions set out in this framework.

3. Effective **communication** will be important to engage and build strong relationship with all stakeholders.

4. Strengthening **information technology support** will be critical to deliver certain strategic actions relating to surveillance, outbreak management and screening.

5. A detailed **fully resourced implementation plan** will be a necessity to enact the strategy. A workforce with the necessary skills will be a crucial resource.

6. In conjunction with the implementation plan, **monitoring and evaluation** will be required to ensure the strategy remains on track.

Conclusion and Next Steps

In conclusion, *Striving to End Tuberculosis – A Strategy for Ireland 2024 - 2030* sets out a high-level framework of priorities, objectives, actions and guiding principles to meet the challenge of ending TB. Implementation of this Strategy can significantly reduce new cases of TB and the health and broader social costs TB can bring to individuals and wider society.

To successfully implement this strategy a fully resourced implementation plan will be developed with the stakeholders and enacted. Additionally, our approach will have to be agile, collaborative, innovative, inclusive and people-centred to realise our strategic vision. This approach will ensure that progress towards the strategic vision of TB elimination in Ireland will be secured, while protecting the wider population also. We have put addressing health inequalities at the heart of the Strategy recognising that with infectious diseases: "*No One is Safe Until Everyone is Safe*."

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Appendix 1. Objectives and Targets Adopted at the United Nations High-level Meeting on TB, 2023

Objectives	Targets
Universal access to WHO recommended treatment for all	90% of people reached with TB treatment between 2023 and 2027
Universal access to WHO recommended rapid diagnostic tests	100% of people diagnosed with TB tested initially using a WHO recommended diagnostic test
Universal access to TB prevention for all	90% reached with TB preventative treatment between 2023 and 2027
Financial risk protection for vulnerable people with TB	100%. All eligible people have access to health and social benefits packages to ensure that there is no financial hardship due to TB disease
Licence a new vaccine to accelerate TB incidence decline	Licensing of at least one new TB vaccine within 5 years
Sustained and adequate financing for TB services and TB research and innovation	Reaching US$22 billion annually by 2027. US$5 billion per year for research by 2027