



BC Centre for Disease Control
An agency of the Provincial Health Services Authority



Strategies to support people post-TB:

Developing a Post-TB Care Package

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Disclosure

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- Other: Canadian Institutes of Health Research, Fonds de recherche du Quebec - Sante

Presentation objectives

1. Review recommendations on the management of post-TB sequelae
2. Describe a structured approach for developing a post-TB care package

**What are the current
recommendations for post-TB
care?**

WHO Policy brief on TB associated disability



- Recognizes TB-associated sequelae as a substantial challenge for TB programs
- Does not offer any strategies or approaches to integrated care

Policy brief on tuberculosis-associated disability

Key messages

- Tuberculosis (TB) is preventable and curable, however, in 2021, an estimated 10.6 million people fell ill with TB worldwide, causing an estimated 1.6 million deaths (1).
- One out of four people who get TB also develop TB-associated disabilities (2,3,4) due to impairments worsened by or developed due to the disease and/or its treatment.

- People with TB-associated impairments or disabilities also experience negative implications for health-related quality of life,

TB treatment outcomes and life expectancy (5), generating overall negative impacts on the health system.

- The management of TB-associated impairments requires a holistic approach delivered in a timely fashion by a multidisciplinary healthcare team, that includes preventive and rehabilitation services aimed at improving the health and social outcomes of TB-affected people.
- Rehabilitation is an essential health service, which remains inadequately funded, inaccessible or unlinked to TB in most TB high burden countries (5).
- Persons with disabilities are more likely to live in poorer and crowded settings (6) and therefore may be more likely to contract TB. Moreover, due to stigma and discrimination, they may face additional barriers to accessing health care services.
- The health and social needs of persons with disabilities, including those with TB-associated disabilities, are well covered under global conventions and frameworks which call for a comprehensive response (7). However, many low- and middle-income countries have limited capacity to address the needs of people with TB-associated disabilities.
- A comprehensive policy response is needed for the treatment and management of TB-associated impairments and disabilities that occur during TB treatment and after its completion. National TB programmes and other programmes responsible for rehabilitation and care for people with disabilities are invited to develop policies to ensure the availability and quality of services addressing the needs of people affected by TB-associated disability, both during and after delivery of TB treatment, by working within and beyond the health sector.
- Further research is urgently needed to inform the development and update of evidence-based policies and guidelines.

Clinical Standards for post-TB lung disease

- Evaluating every person completing TB treatment for post-TB lung disease
- Assessing those with symptoms for pulmonary rehabilitation
- Tailoring rehabilitation programs to fit local health resources and individual needs

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CLINICAL STANDARDS FOR LUNG HEALTH

Clinical standards for the assessment, management and rehabilitation of post-TB lung disease

SUMMARY

BACKGROUND: Increasing evidence suggests that post-TB lung disease (PTLD) causes significant morbidity and mortality. The aim of these clinical standards is to provide guidance on the assessment and management of PTLD and the implementation of pulmonary rehabilitation (PR).

METHODS: A panel of global experts in the field of TB care and PR was identified; 62 participated in a Delphi process. A 5-point Likert scale was used to score the initial ideas for standards and after several rounds of revision the document was approved (with 100% agreement).

RESULTS: Five clinical standards were defined: Standard 1, to assess patients at the end of TB treatment for PTLD (with adaptation for children and specific settings/situations); Standard 2, to identify patients with PTLD for PR; Standard 3, tailoring the PR programme to patient needs and the local setting; Standard 4, to evaluate the effectiveness of PR; and Standard 5, to conduct education and counselling. Standard 6 addresses public health aspects of PTLD and outcomes due to PR.

CONCLUSION: This is the first consensus-based set of Clinical Standards for PTLD. Our aim is to improve patient care and quality of life by guiding clinicians, programme managers and public health officers in planning and implementing adequate measures to assess and manage PTLD.

KEY WORDS: tuberculosis; post-TB lung disease; sequelae; pulmonary rehabilitation; clinical standards

Post-TB Health and Well Being Clinical Statement

- Integration of post-TB services with other healthcare services
- Screening for common non-communicable diseases, undernutrition, alcohol misuse and mental health disorders.
- Smoking cessation programs
- Social protection programmes

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CLINICAL STATEMENT

Post-TB health and wellbeing

SUMMARY

TB affects around 10.6 million people each year and there are now around 155 million TB survivors. TB and its treatments can lead to permanently impaired health and wellbeing. In 2019, representatives of TB affected communities attending the ‘1st International Post-Tuberculosis Symposium’ called for the development of clinical guidance on these issues. This clinical statement on post-TB health and wellbeing responds to this call and builds on the work of the symposium, which brought together TB survivors, healthcare professionals and researchers. Our document offers

expert opinion and, where possible, evidence-based guidance to aid clinicians in the diagnosis and management of post-TB conditions and research in this field. It covers all aspects of post-TB, including economic, social and psychological wellbeing, post TB lung disease (PTLD), cardiovascular and pericardial disease, neurological disability, effects in adolescents and children, and future research needs.

KEY WORDS: quality of life; post-tuberculosis lung disease; tuberculous neuropathy; tuberculous pericarditis; post-TB socio-economic burden

Canadian TB Standards - 8th Edition

- Pulmonary function testing should be performed in all people completing therapy for pulmonary TB
- TB programs should ensure that people with TB are linked to a stable primary care provider before the end of TB treatment



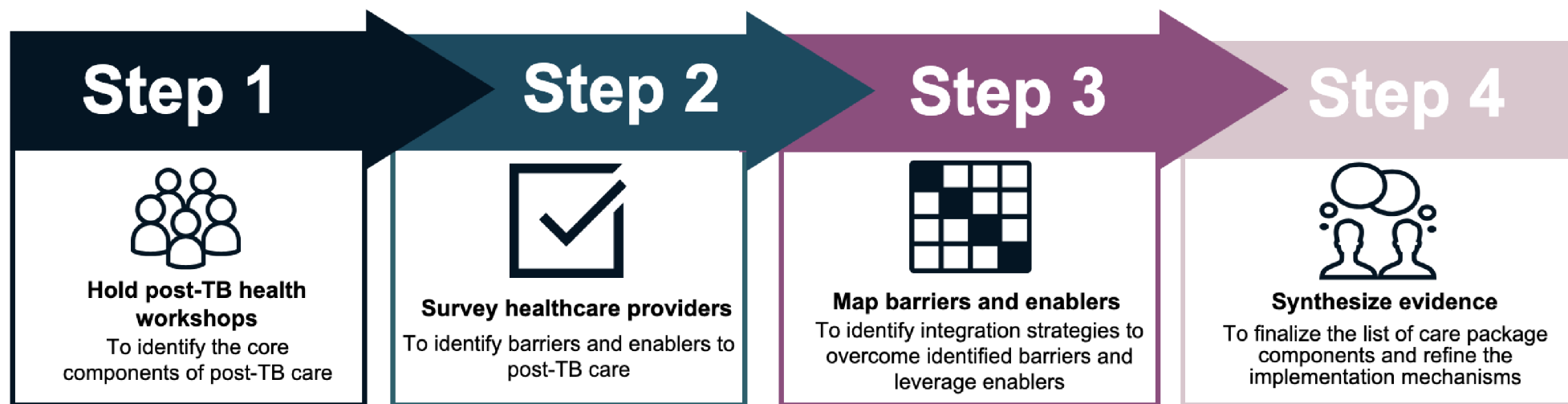
Many questions remain

- Optimal timing of interventions relative to treatment?
- What population is most likely to benefit?
- Cost and cost-effectiveness?
- Acceptance among healthcare providers? Acceptance among effected populations?



**How do we start thinking
about incorporating post-TB
care?**

Developing a post-TB care package



Step 1: Identify the core components of the post-TB care package

Step 1:

- Virtual workshops with 8 TB healthcare providers and 3 GPs in British Columbia
- Aimed to identify potential components of post-TB care package
- Presented **A VERY LONG LIST** of potential post-TB interventions and discussed their applicability in British Columbia
- Used modified Delphi process to reach consensus on preliminary list of post-TB care package components



Potential components:

■ Screening for post TB lung disease

- Spirometry
- Full pulmonary function testing
- 6-minute walk test
- Chest x-ray
- CT scan
- Borg Dyspnea Scale

■ Linkage to primary care

■ Smoking cessation advice or referral

■ Depression screening

■ Cardiovascular risk assessment

- Blood pressure screening
- Framingham (or similar) CVD screening

■ Comorbidity screening

- Hep B& C screening
- DM screening

■ Vaccinations

- Assess/offer if individual is up to date on current vaccinations (COVID, flu, pneumococcal)

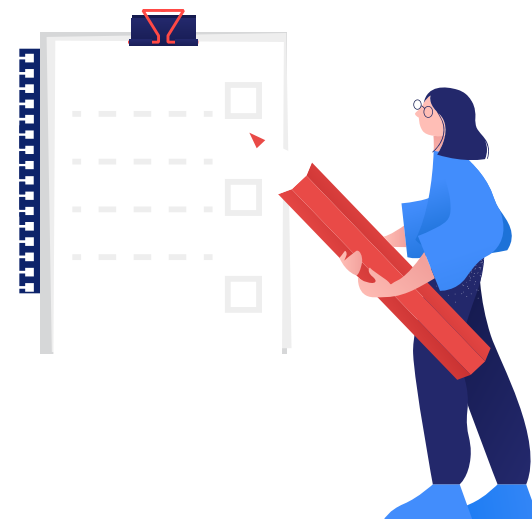
Potential post-TB care components identified:

1. Discuss post-TB health during clinic visits
2. Discuss smoking cessation or refer to smoking cessation specialist
3. Refer for end of treatment pulmonary function test
4. Administer end-of-treatment 6-minute walk test
5. Link to primary care provider if individual does not have one
6. Send primary care provider a post-TB care information sheet

Step 2: Identify barriers and enablers to post-TB care

Step 2:

- An anonymous, self-administered, web-based questionnaire
- **Goal to understand perceptions around post-TB care and identify barriers or facilitators to its implementation**
- All healthcare providers (nursing, physician, pharmacist, and social workers) at the Provincial TB Clinics were invited to participate



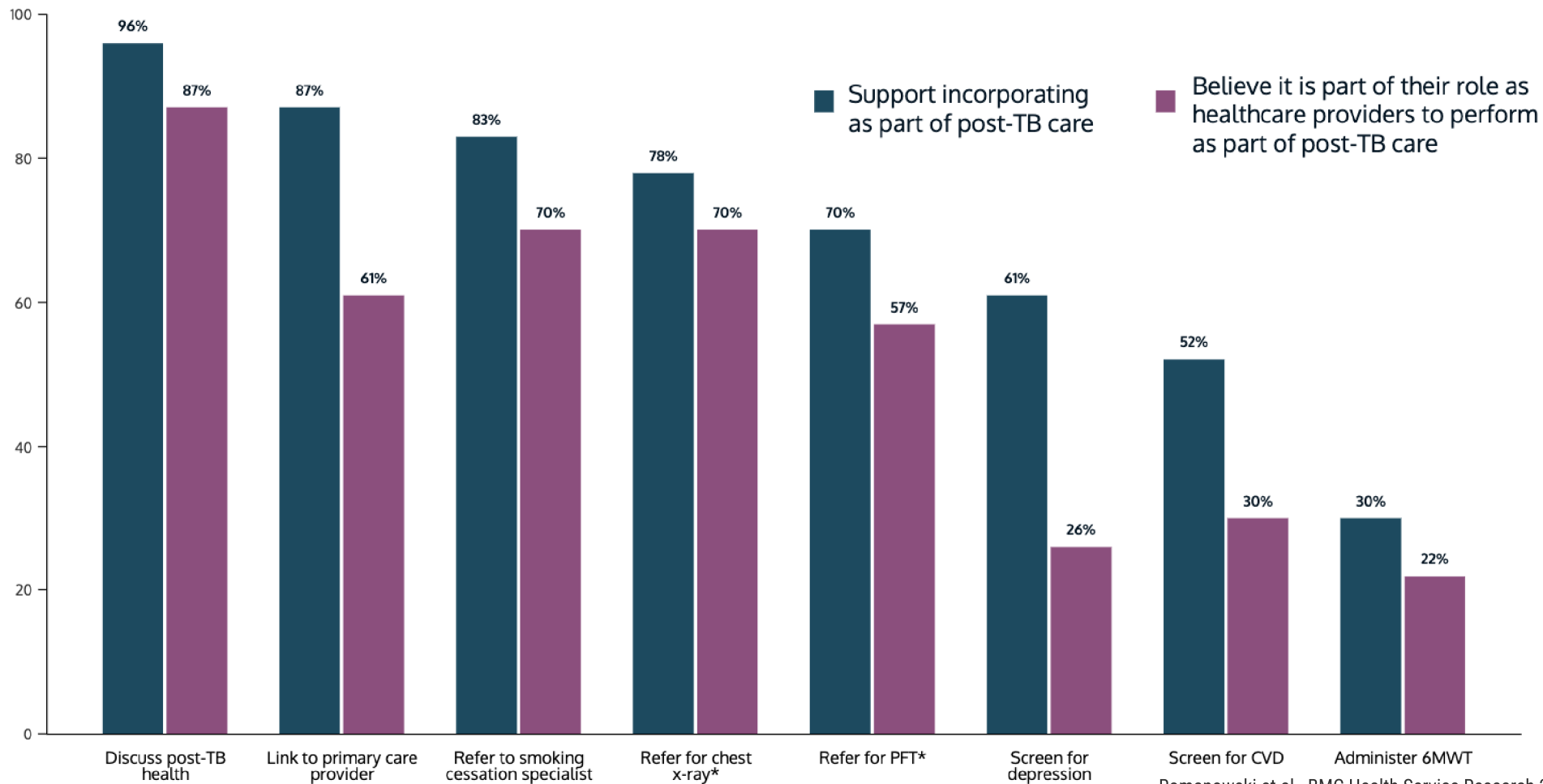
Example questions:

- **Knowledge:** I am aware of the long-term impacts of TB
- **Professional role & identity:** I believe it is my responsibility to discuss post-TB health with individuals who have TB disease
- **Beliefs about capabilities:** I feel confident discussing post-TB health with people who have active TB
- **Beliefs about consequences:** Other topics take priority for me over post-TB health discussions
- **Environment, context and resources:** I currently have enough time to discuss post-TB health with individuals

Step 2: Barriers identified

- **Time & resources:** Not having enough time or resources to discuss post-TB health concerns
- **Conflicting priorities:** More concerns about other TB issues than post-TB health concerns
- **Confidence:** Not feeling confident about about providing post-TB care

Step 2: Roles & responsibilities



**Step 3: Map the identified
barriers and enablers to
identify strategies to
overcome them**

Step 3: Mapping barriers

The Theory and Techniques Tool

Explore the links between 74 Behaviour Change Techniques (BCTs)
and 26 Mechanisms of Action (MoAs) by selecting a cell

 Select one cell you're interested in or make your own custom heat map by selecting '+' on the columns and rows of i

| <div><div><div></div>Links</div><div><div></div>Non-links</div></div> <div><div><div></div>Inconclusive</div><div><div></div>No evidence</div></div> | | MoAs | | | | | | | | | | |
|--|-------------------------------|---------------------------------------|---------------------------------------|---|---|---------------------------------------|---|---------------------------------------|---------------------------------------|---------------------------------------|---|--|
| | | <div><div>+</div></div> <div>Kn</div> | <div><div>+</div></div> <div>Sk</div> | <div><div>+</div></div> <div>SPRI</div> | <div><div>+</div></div> <div>BaCa</div> | <div><div>+</div></div> <div>Op</div> | <div><div>+</div></div> <div>BaCo</div> | <div><div>+</div></div> <div>Re</div> | <div><div>+</div></div> <div>In</div> | <div><div>+</div></div> <div>Go</div> | <div><div>+</div></div> <div>MADP</div> | <div><div>+</div></div> <div>ECR</div> |
| <div><div>+</div></div> | 1.1. Goal setting (behaviour) | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> |
| <div><div>+</div></div> | 1.2. Problem solving | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> |
| <div><div>+</div></div> | 1.3. Goal setting (outcome) | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> |
| <div><div>+</div></div> | 1.4. Action planning | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> | <div><div></div></div> |

Step 3: Mapping barriers & potential

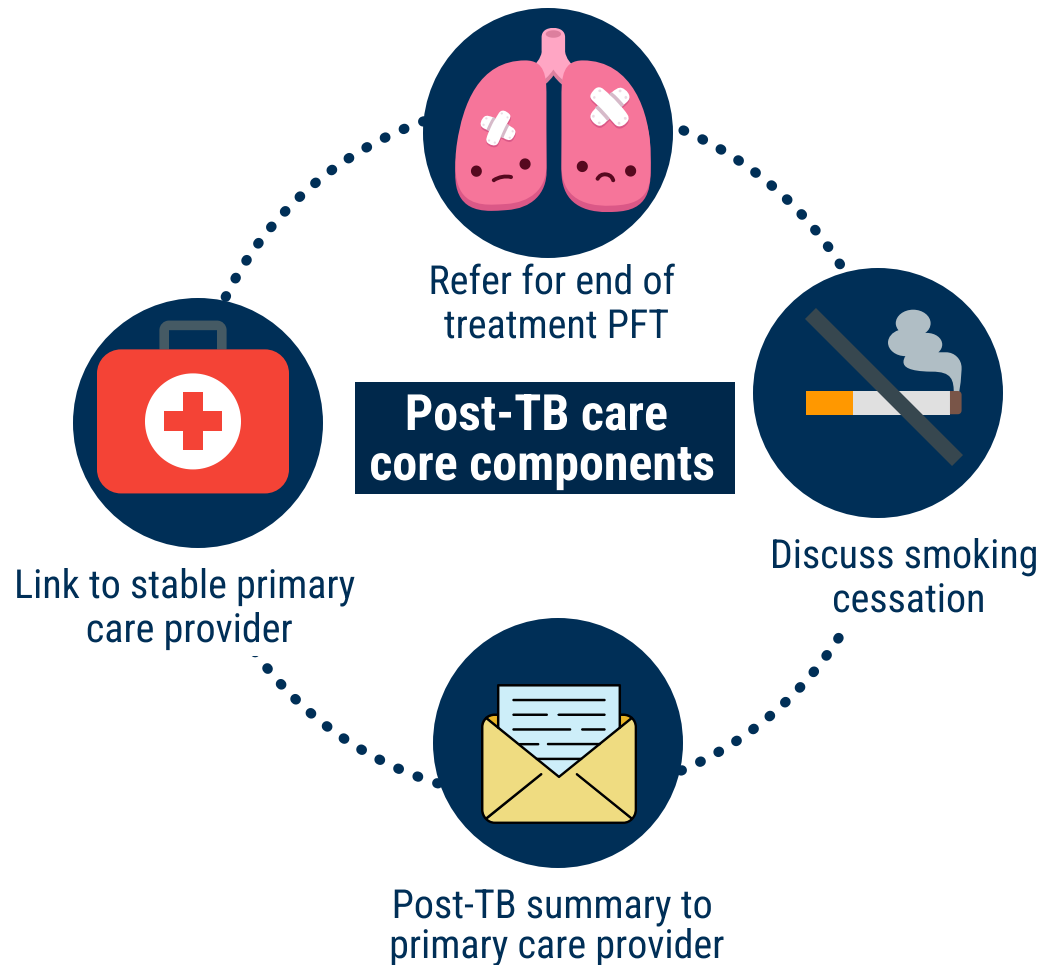
| Barriers identified | Domain | Corresponding technique | Potential operationalized component |
|--|---------------------------------|---|--|
| HCPs do not have enough time to discuss post-TB health | Environment, context, resources | Restructure the environment | Add an additional 5 minutes to the last clinic appointment |
| HCPs may not be trained to provide post-TB health recommendations | Skills | Instructions on how to perform behaviours | Routine educational meetings on post-TB health for healthcare providers |
| HCPs may not be aware of the evidence that supports incorporating post-TB care | Knowledge | Information about health consequences | Information leaflets for healthcare providers which summarize key post-TB health concerns and evidence on incorporating post-TB care |
| HCPs do not have enough referral options to discuss post-TB health | Environment, context, resources | Add objects to the environment | Identify post-TB 'system navigators' to coordinate the referral process |
| HCPs may be more concerned about other TB issues than post-TB health | Consequences | Information about health consequences | Information leaflets for healthcare providers which summarize key post-TB health concerns and evidence on incorporating post-TB care |

Step 3: Strategies to overcome barriers

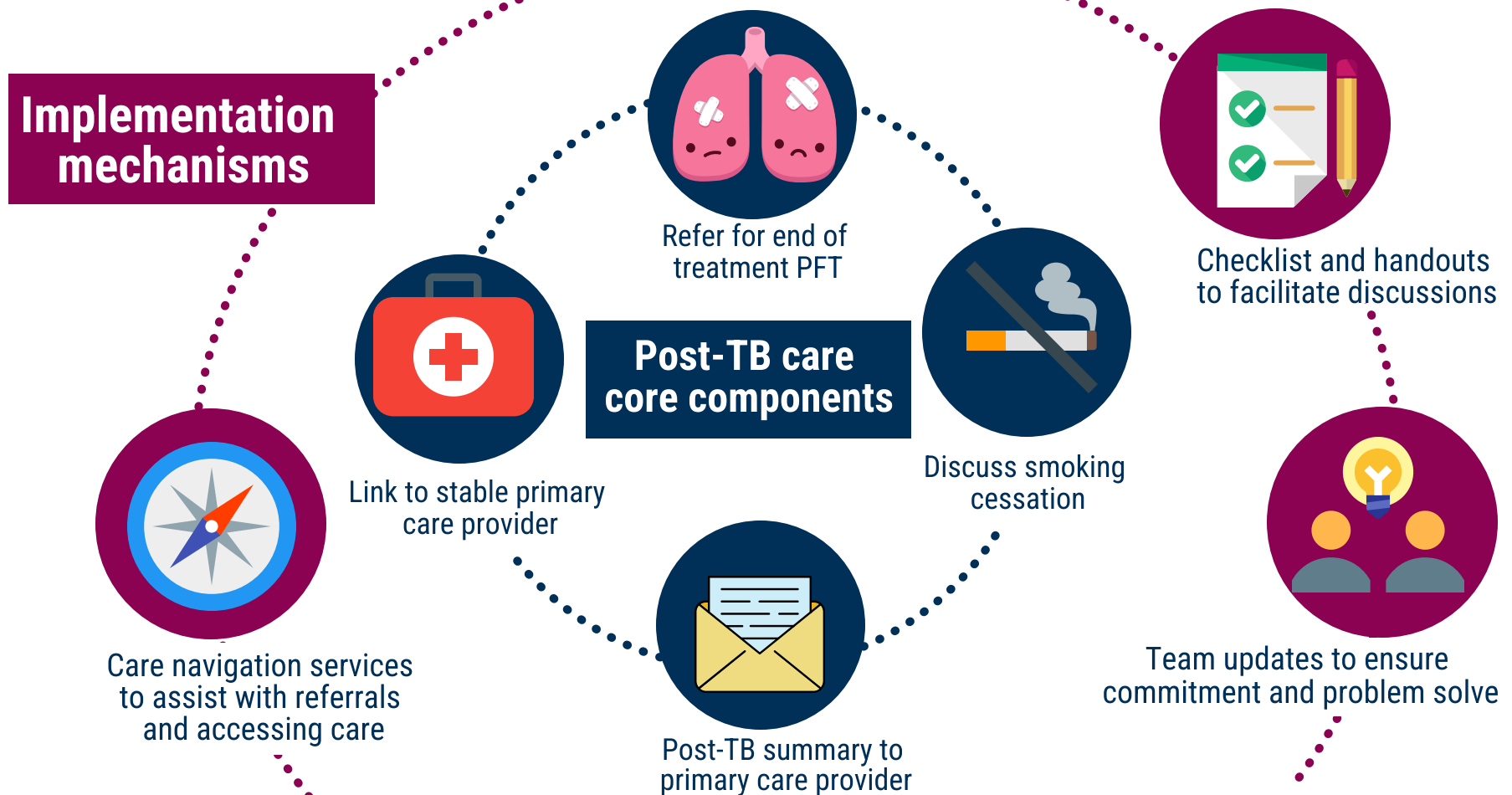
- Incorporating care navigators to help coordinate the post-TB process
- Incorporating information on post-TB in routine team meetings
- Develop information leaflets summarizing key post-TB health evidence

Step 4: Synthesize the evidence

Step 4: Evidence synthesis



Step 4: Evidence synthesis



Linkage to care

We need to bridge service gaps for populations completing treatment and transitioning out of TB care.



Perspectives of people with lived experience

Involving affected communities can lead to interventions that are more responsive to their needs, as they offer valuable insights into the pressing challenges they face and the optimal approach to addressing them.



Take home messages

1. We need to ensure some form of continuity of care is in place for people as they transition out of TB care.
2. By using a structured approach, we can generate actionable information to help guide the design and implementation of post-TB services.



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