NHS RightCare

Putting the theory into practice: building a logic model

Examples from the NHS

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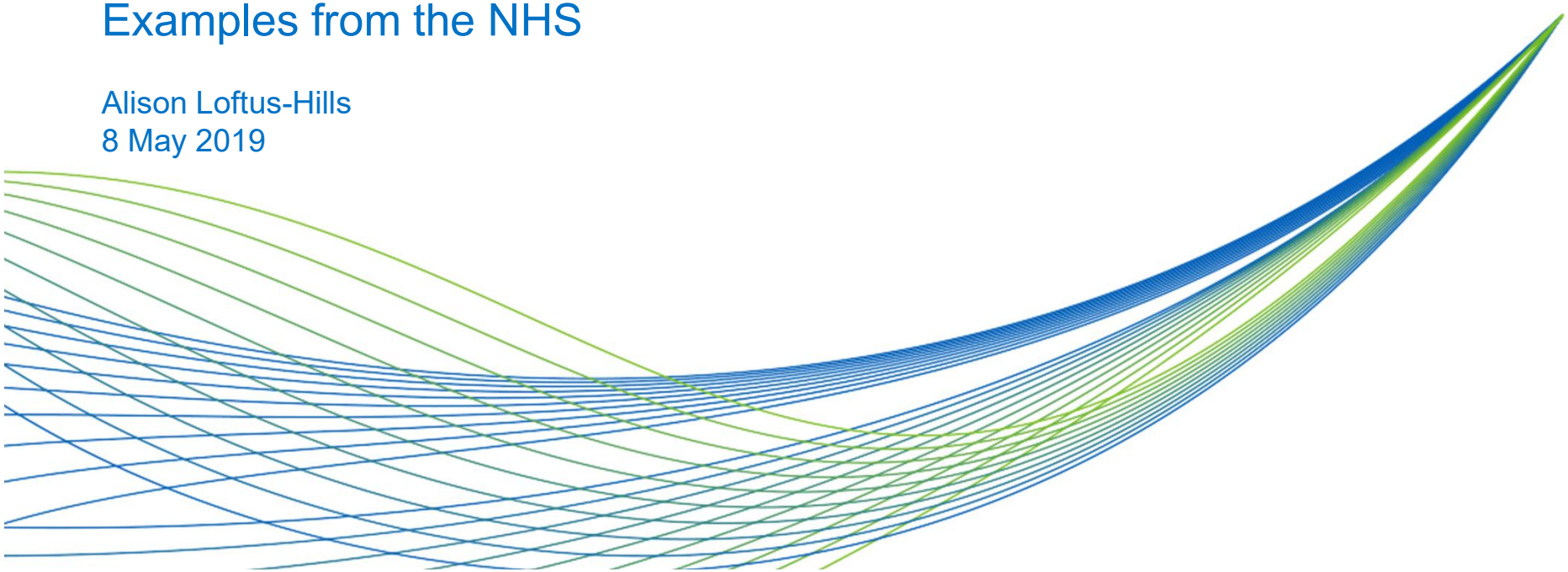


NHS RightCare

NHS RightCare Delivery

DIAGNOSE
the issues and identify the opportunities with data, evidence and intelligence

DEVELOP
solutions, guidance and innovation

DELIVER
improvements for patients, populations and systems

Guiding principles

1. Create a logic model at the **programmes inception** and continue to build on, and refine, as the programme develops.
2. Develop a logic model **collaboratively** with key stakeholders – clinical and operational leads but also those who can agree commissioning support, workforce development etc.
3. Different stakeholders will often have different end goals so take time to get agreement.
4. Decide what your model is and what **level** it is at. Is it a system model for example for a whole STP; is it a programme model; or is it a scheme or intervention model?
5. It is helpful if logic model development is built into **local planning** and **review** cycles to continue to verify and revise the model as the project or programme evolves.

This iterative process will highlight any gaps in (a) information that you need and (b) people you need to engage with.

‘If X, Then Y’: drawing out the theory

Understanding the interdependencies…

If we deliver training to people who are unemployed **then** they will improve their skills;

If they improve their skills, **then** they will gain in confidence or gain a qualification;

If they gain in confidence or gain a qualification, **then** they will obtain more job interviews and job offers;

If they get a job, **then** their income will rise, and there will be reduced unemployment.

The activity funding connects to…

The outputs of the funding…

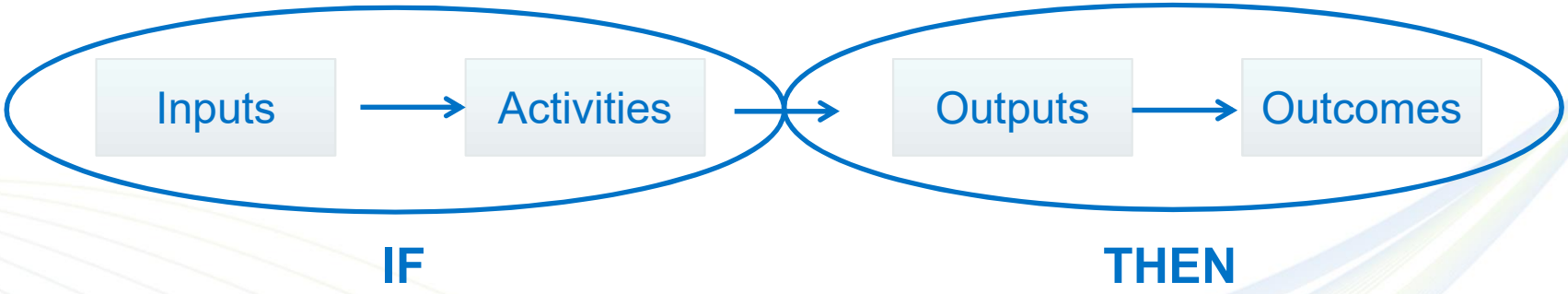
And onto the longer-term outcomes…

A basic template

There is no one single template but there are a number of principles and common components.

Everything should follow from the intended results and be directly related to that and directly contributing to that.

At it's simplest…



RightCare Pathways: COPD

NHS RightCare

National Challenge	**Early detection Accurate diagnosis**	**Optimal long term condition management including frailty, comorbidity and exacerbations**	**Hospital readmissions**	**Avoidable mortality**
RightCare Opportunity	***210,000 more patients could be detected*** **if CCGs achieved the rate of their best 5 peers.**	***25,500 more COPD patients would have a 12 month holistic review*** **if CCGs had the same rate as their best 5 peers.**	***£49m could be saved*** **if CCGs achieved the emergency admission rate of their best 5 peers.**	***1,400 more lives would be saved*** **if CCGs had the same premature mortality rate as their lowest 5 peers.**
Enablers for integrated population health	• Commission the whole pathway not the setting or a service • Risk stratification for appropriate health resource utilisation • Primary and community care team access to appropriate diagnostic tools • Strategies for developing and sharing respiratory expertise across all health and care providers • Clear clinical and corporate governance structures between all health and care providers			
Priorities for optimisation	**Smoking Cessation** **Management of co-morbidities and frailty**			

	• Community-based case finding and with subsequent quality-assured diagnostic spirometry
	• Breathlessness symptom pathway to accurate diagnosis
	• Quality assured workforce trained to make accurate diagnosis of respiratory symptoms
		• Flu and pneumonia vaccinations
		• Timely access to pulmonary rehabilitation
		• Personalised holistic review, including
		  • comorbidities
		  • frailty
		  • inhaler review
		  • medicines optimisation
		  • plan for exacerbations
		  • end of life care
			• Optimise community support to prevent readmission
			• Inpatient care according to national standards
			  • admission pathway
			  • post-exacerbation pathway, including discharge bundle
			  • Seamless transition between hospital and community care
			• Coordinated support for care homes
				• Evidence-based care for severe COPD (e.g. Oxygen therapy, Lung volume reduction, NIV, transplantation etc.)
				• Access to specialised services
				• Advance care planning
				  • GSF
				  • Community based breathlessness service
				  • Local palliative care teams

	Multidisciplinary supportive care approach **Signposting and care navigation** **Psychological support, including for frightening breathlessness** **Community activation to overcome social isolation and stay physically active, including peer support** **Self-management plans supported by good information and patient training**			

Average smoking prevalence but lower numbers of quitters

Bigger gap between reported and estimated prevalence (2400 patients compared to peers)

Lower numbers with flu vac (eg: 4000 patients compared to peers)

Lower numbers offered smoking support

Higher prescribing spend

Less people feel supported to manage their condition

Higher non-elective spend, and more bed days

More non-invasive ventilation procedures

Longer LOS in hospital as a result of an emergency admission in last year of life

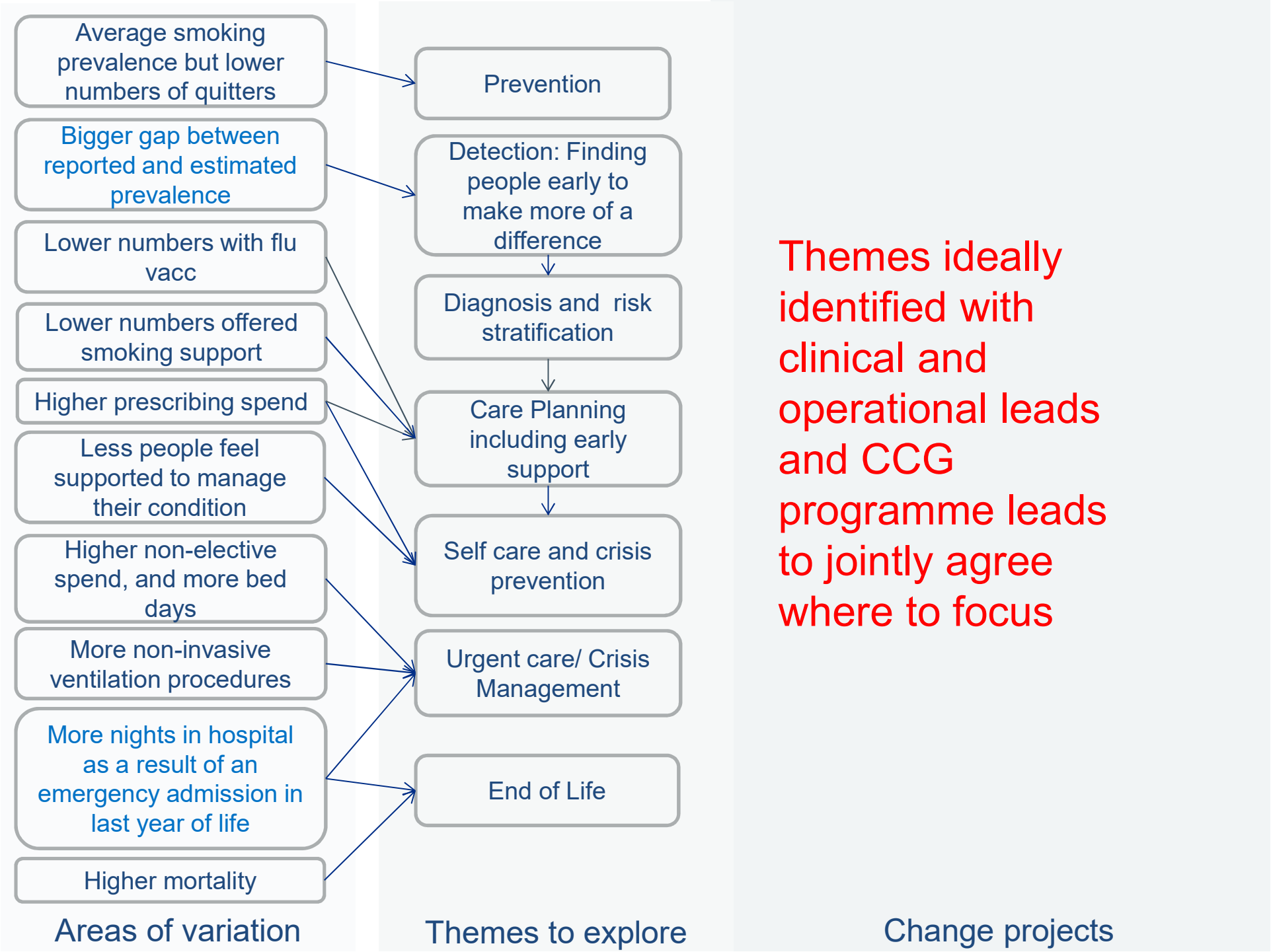
Higher mortality

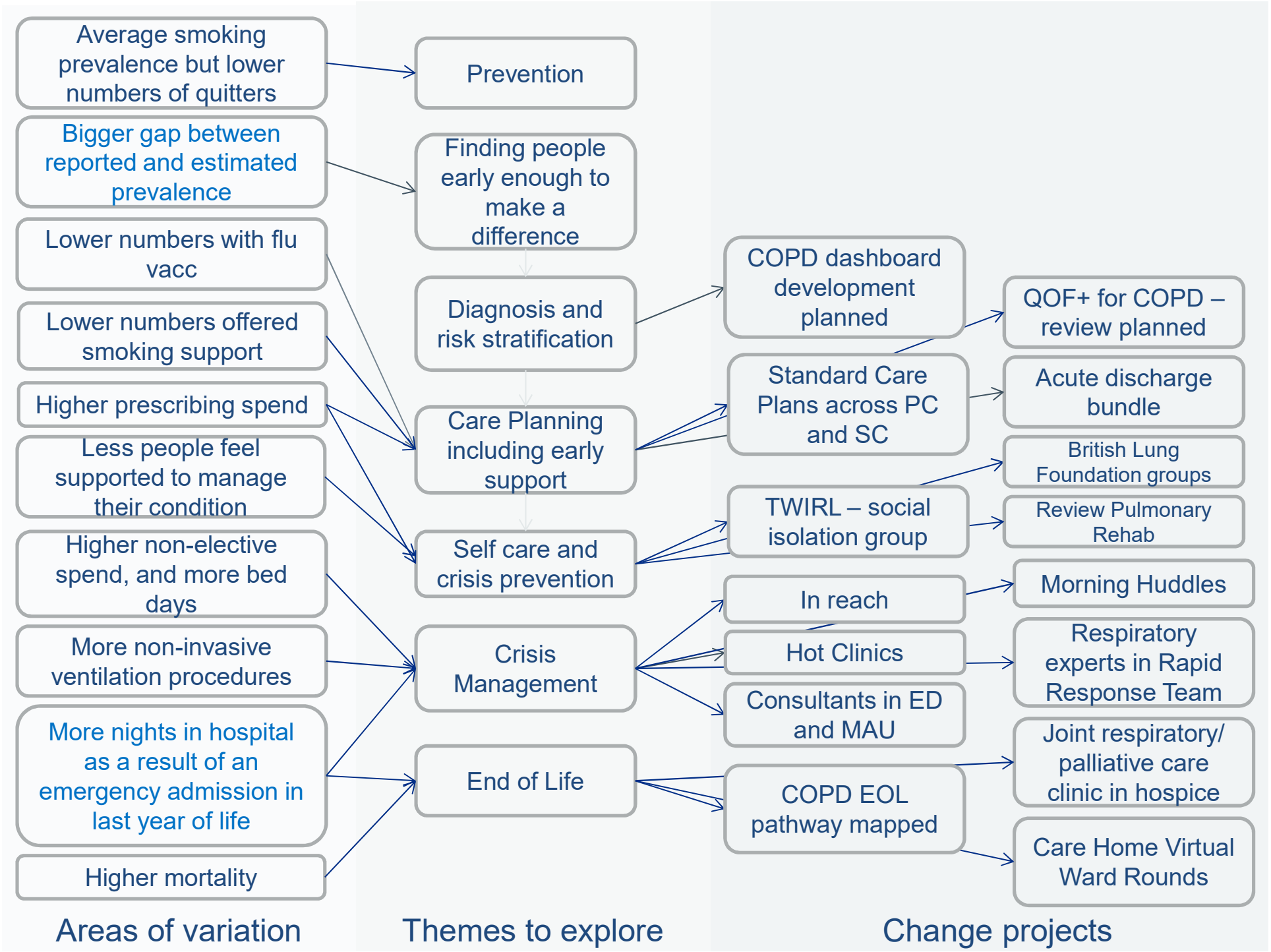
Areas of variation

Themes to explore

Review of RC and other relevant data and local insight to agree areas that require improvement

Change projects


Average smoking prevalence but lower numbers of quitters
Bigger gap between reported and estimated prevalence
Lower numbers with flu vacc
Lower numbers offered smoking support
Higher prescribing spend
Less people feel supported to manage their condition
Higher non-elective spend, and more bed days
More non-invasive ventilation procedures
More nights in hospital as a result of an emergency admission in last year of life
Higher mortality
Areas of variation
Prevention
Detection: Finding people early to make more of a difference
Diagnosis and risk stratification
Care Planning including early support
Self care and crisis prevention
Urgent care/ Crisis Management
End of Life
Themes to explore
Themes ideally identified with clinical and operational leads and CCG programme leads to jointly agree where to focus
Change projects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Areas of variation
Prevention
Finding people early enough to make a difference
Diagnosis and risk stratification
Care Planning including early support
Self care and crisis prevention
Crisis Management
End of Life
Themes to explore
COPD dashboard development planned
Standard Care Plans across PC and SC
TWIRL – social isolation group
In reach
Hot Clinics
Consultants in ED and MAU
COPD EOL pathway mapped
QOF+ for COPD – review planned
Acute discharge bundle
British Lung Foundation groups
Review Pulmonary Rehab
Morning Huddles
Respiratory experts in Rapid Response Team
Joint respiratory/ palliative care clinic in hospice
Care Home Virtual Ward Rounds
Change projects

Building a logic model I

Outcomes

- What needs changing/improving? This will provide you with the outcomes you want to achieve.
- The outcomes should be based on:
  - Tacit and local knowledge
  - Evidence base
  - Understanding of the data including unwarranted variation
- Outcomes can be framed as short/ mid term and mid/ long term
- Can be part of a pathway but with an understanding of interdependencies

Translate into the Delivery Plan

Inputs	Activities	Outputs	Outcomes
			X Reduction in non-elective admissions
			Increase in number of people who understand their condition and feel supported to manage their condition
			% Reduction in LOS in hospital as a result of an emergency admission in last year of life

Building a logic model II

Activities

1. Activities are the actual changes that will be made.
2. The ideas generated through your optimal design process will inform these activities.
3. Participants should be encouraged to use 'if…then' thinking in generating these activities.
4. The links between the activities and outcomes should be informed by evidence and tested after workshop.
5. NB. Hierarchy of evidence – if research trials are not available evidence also includes expert opinion.
6. Activities are often the things tracked with Project and Programme management methods.

Translate into the Delivery Plan

Inputs	Activities	Outputs	Outcomes
	Recruit X Respiratory experts in rapid response team		X Reduction in non-elective admissions
	Standard care plans developed. Recruit X care navigators within primary care Ensure links with X psych services to address fear of breathlessness.		Increase in number of people who understand their condition and feel supported to manage their condition
	X new Joint respiratory/ palliative care clinics in hospices.		% Reduction LOS in hospital as a result of an emergency admission in last year of life

Building a logic model III

<u>Inputs</u> – for each activity

1. Who is the target audience for this intervention e.g. 2,000 people with undiagnosed COPD.
2. What resources are needed to deliver this intervention e.g. financial, workforce, estates?
3. What are the levers needed to deliver this intervention e.g. Primary Care Commissioning Framework
4. Think about scale of population at need and the impact wanted.

Translate into the Delivery Plan

Inputs	Activities	Outputs	Outcomes
X (high) numbers of people with severe COPD leading to high non elective admissions	Recruit X Respiratory experts in rapid response team		X Reduction in non-elective admissions
4000 people on COPD register. Need to better care navigation, treatment and self care	Standard care plans developed. Recruit X care navigators within primary care Ensure links with X psych services to address fear of breathlessness.		Increase in number of people who understand their condition and feel supported to manage their condition
100 people with COPD at end of life	X new Joint respiratory/ palliative care clinics in hospices. Palliative/ Respiratory consultant capacity		% Reduction in LOS in hospital as a result of an emergency admission in last year of life

Building a logic model IV

Outputs - for each activity

1. What can you measure to be confident the activity has been implemented?
2. Is the output logically linked to the outcome you are trying to achieve?
3. Are there assumptions behind these? Can you capture these? Can you measure these?
4. Is this currently measured? Can you get a baseline? How frequently can you get data? How timely is the data?
5. If not currently measured? Who is going to measure it? How are they going to measure it? How are you going to incentivise this?

Translate into the Delivery Plan

Inputs	Activities	Outputs	Outcomes
X (high) numbers of people with severe COPD leading to high non elective admissions	Recruit X Respiratory experts into rapid response team	X patients seen by rapid response team in ED	X Reduction in non-elective admissions
4000 people on COPD register. Need to better care navigation, treatment and self care	Standard care plans developed. Recruit X care navigators within primary care Ensure links with X psych services to address fear of breathlessness.	X patients with cohesive care plan in place	Increase in number of people who feel supported to manage their condition
100 people with COPD at end of life	X new Joint respiratory/ palliative care clinics in hospices. Palliative/ Respiratory consultant capacity	X patients seen in new clinics	% Reduction in LOS in hospital as a result of an emergency admission in last year of life

MSK – What is the issue?

- In Somewhere CCG, there is a high elective spend for knee and hip operations. The CCG spends 4m more than its similar peers.
- There is recognition of the need to expand the development of a triage service and the community physiotherapy service.
- Based on the evidence based, there is a recognition that a pain management service also needs to be developed and injections reduced in line with NICE guidance.
- It is recognised that involvement (and agreement) of key stakeholders and effective communication with staff and patients is important.

Example 2: MSK
Building a logic model I

Outcomes

- What needs changing/improving? This will provide you with the outcomes you want to achieve.
- The outcomes should be based on:
  - Tacit and local knowledge
  - Evidence base
  - Understanding of the data including unwarranted variation
- Outcomes can be framed as short/ mid term and mid/ long term
- Can be part of a pathway but with an understanding of interdependencies

Translate into the Delivery Plan

Inputs	Activities	Outputs	Outcomes
			Improved access for patients to appropriate MSK services
			Reduction in elective spend for MSK procedures
			Increase in appropriate treatment and reduction in non evidence based interventions
			Improved MSK patient's experience and outcomes
			Improved understanding of care approach for staff and patients.

Building a logic model II

Activities

1. Activities are the actual changes that will be made.
2. The ideas generated through your optimal design process will inform these activities.
3. Participants should be encouraged to use 'if…then' thinking in generating these activities.
4. The links between the activities and outcomes should be informed by evidence and tested after workshop.
5. NB. Hierarchy of evidence – if research trials are not available evidence also includes expert opinion.
6. Activities are often the things tracked with Project and Programme management methods.

Translate into the Delivery Plan

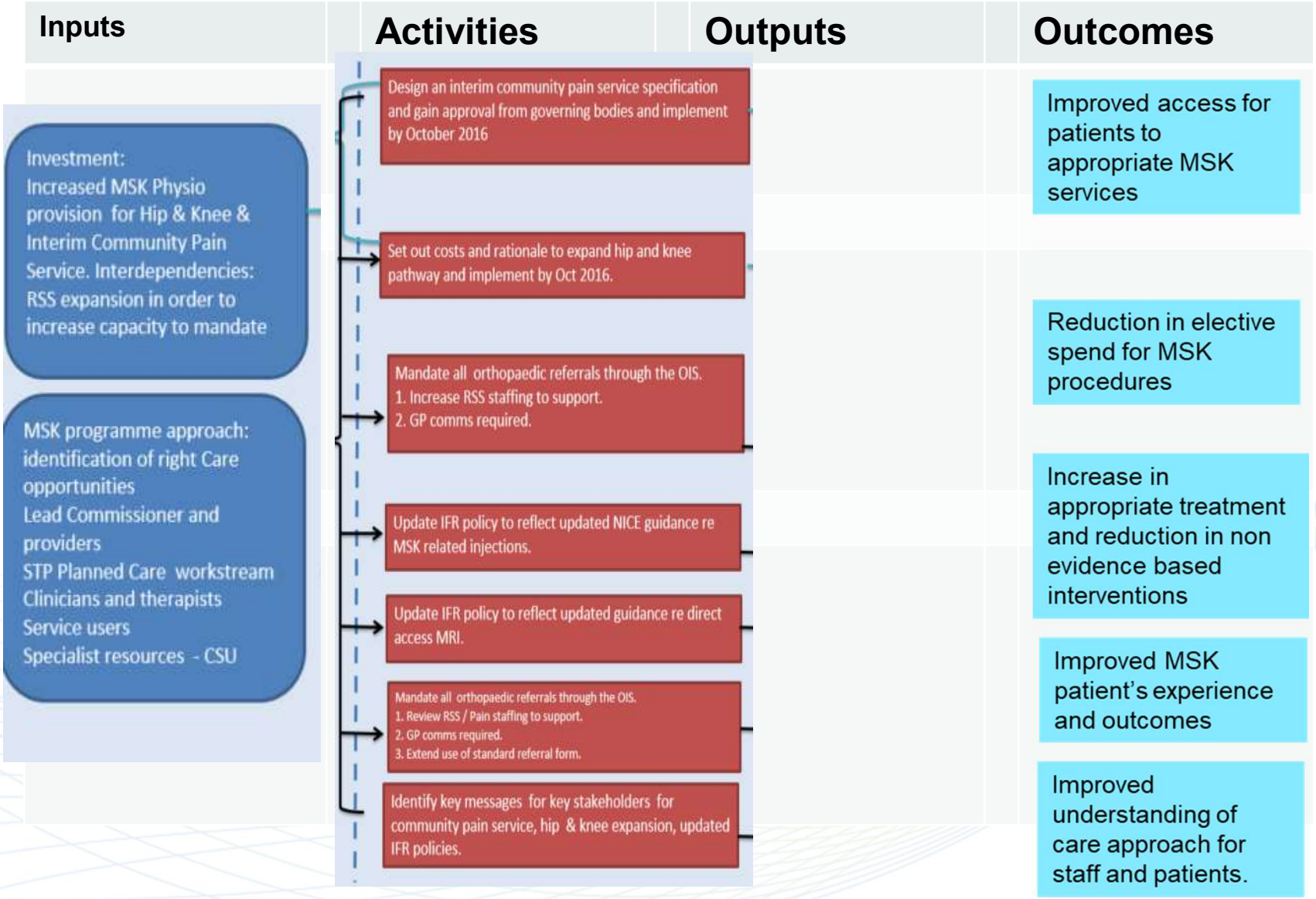
Inputs	Activities	Outputs	Outcomes
	Design an interim community pain service specification and gain approval from governing bodies and implement by October 2016		Improved access for patients to appropriate MSK services
	Set out costs and rationale to expand hip and knee pathway and implement by Oct 2016.		Reduction in elective spend for MSK procedures
	Mandate all orthopaedic referrals through the OIS. 1. Increase RSS staffing to support. 2. GP comms required.		Increase in appropriate treatment and reduction in non evidence based interventions
	Update IFR policy to reflect updated NICE guidance re MSK related injections.		
	Update IFR policy to reflect updated guidance re direct access MRI.		Improved MSK patient's experience and outcomes
	Mandate all orthopaedic referrals through the OIS. 1. Review RSS / Pain staffing to support. 2. GP comms required. 3. Extend use of standard referral form.		
	Identify key messages for key stakeholders for community pain service, hip & knee expansion, updated IFR policies.		Improved understanding of care approach for staff and patients.

Building a logic model III

<u>Inputs</u> – for each activity

1. Who is the target audience for this intervention e.g. 2,000 people with undiagnosed COPD.
2. What resources are needed to deliver this intervention e.g. financial, workforce, estates?
3. What are the levers needed to deliver this intervention e.g. Primary Care Commissioning Framework
4. Think about scale of population at need and the impact wanted.

Translate into the Delivery Plan

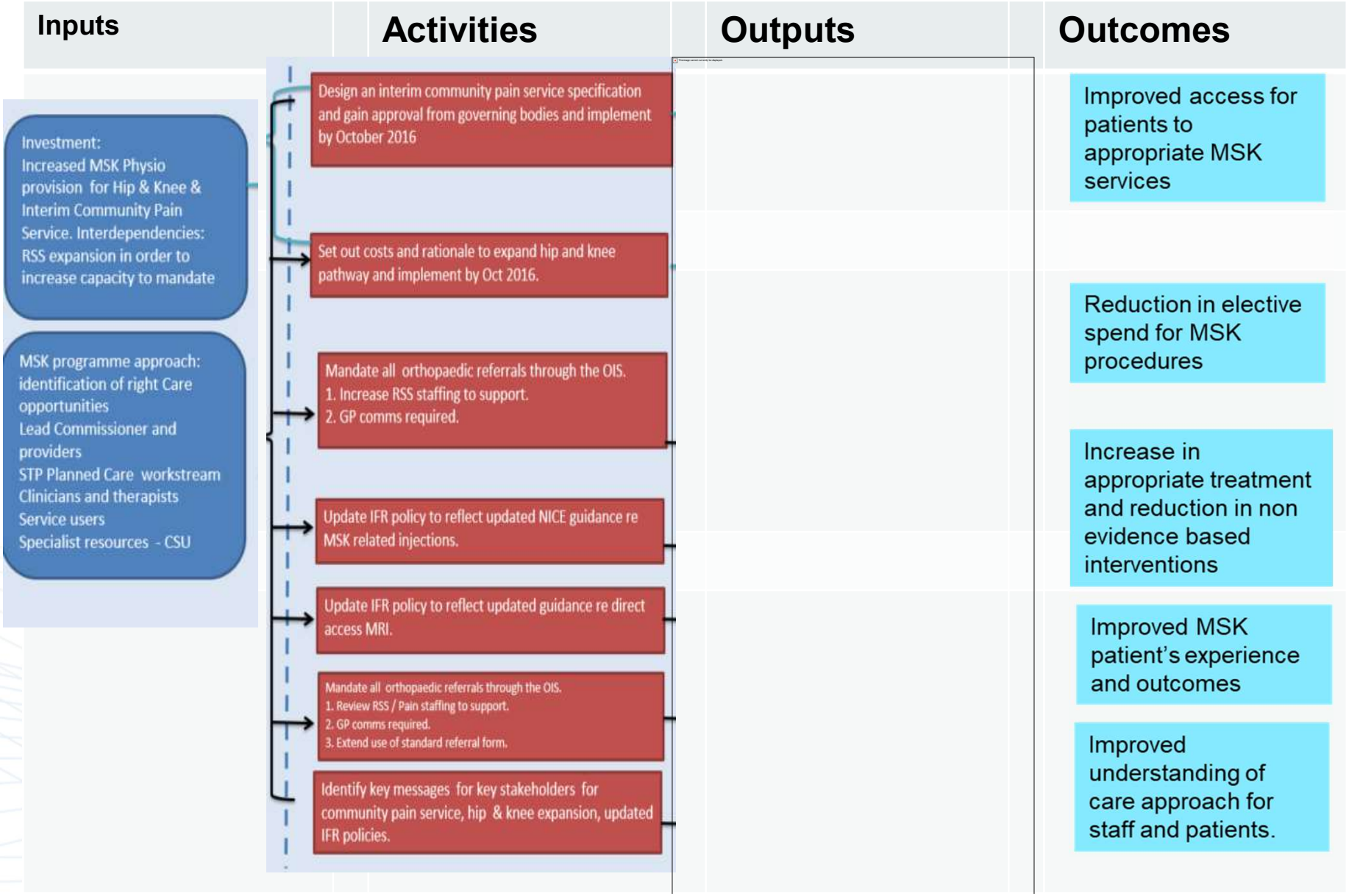


Building a logic model IV

Outputs - for each activity

1. What can you measure to be confident the activity has been implemented?
2. Is the output logically linked to the outcome you are trying to achieve?
3. Are there assumptions behind these? Can you capture these? Can you measure these?
4. Is this currently measured? Can you get a baseline? How frequently can you get data? How timely is the data?
5. If not currently measured? Who is going to measure it? How are they going to measure it? How are you going to incentivise this?

Translate into the Delivery Plan



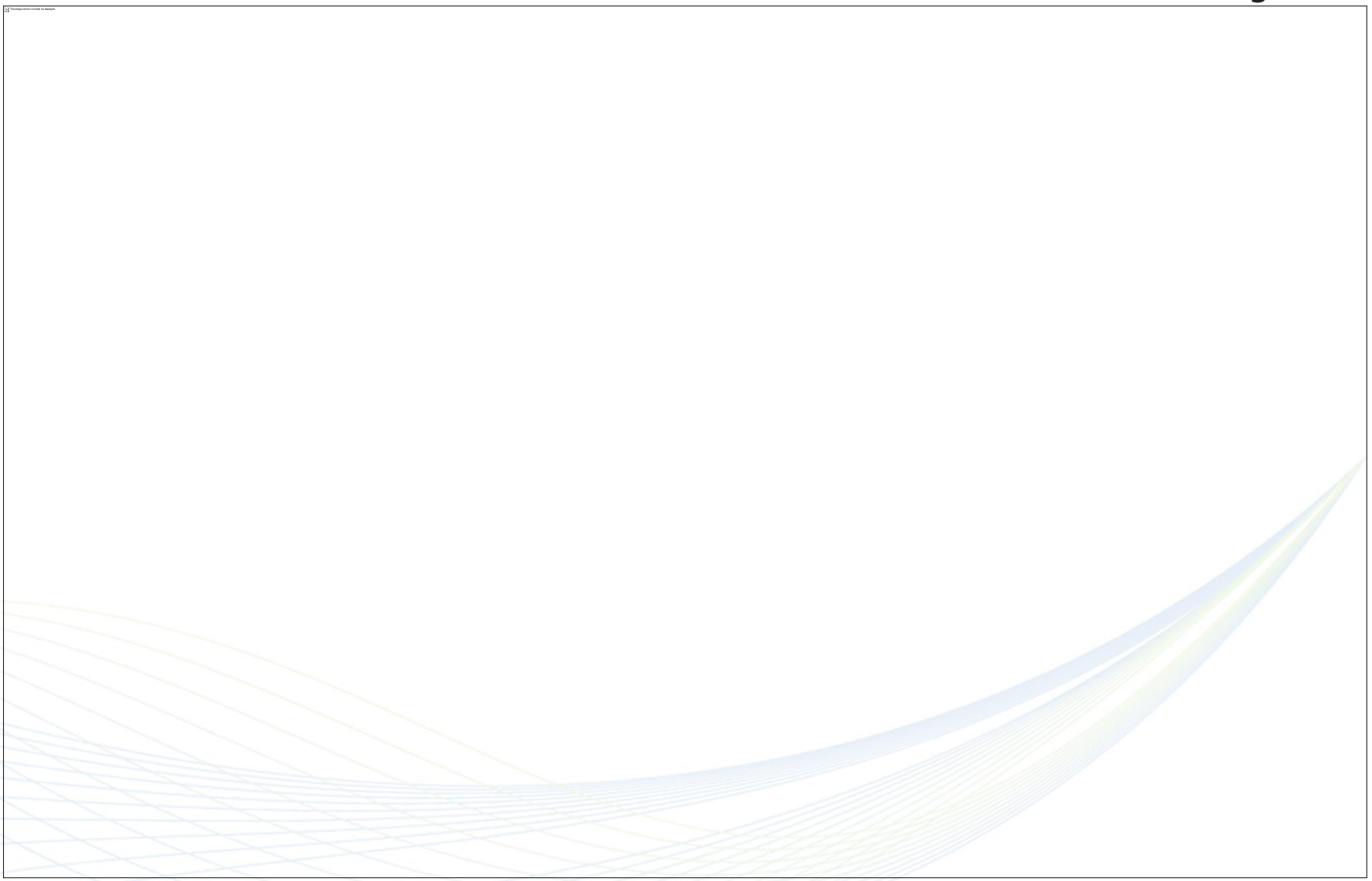
Dark Logic

1. Identify what could go wrong with implementation
2. How likely is it that your organisation will successfully implement this?

Building a logic model IV

Grouping and linking

1. It is common practice to group the items that are included on a model both for legibility and to demonstrate key links between the things that will be done and the effect.
2. It is likely that the outcomes will have more than one ‘cause’ or activity attributable to them. This is not a simple exercise!
3. Some judgement is advised to ensure that the model doesn’t resemble spaghetti junction! Look to include the main impacts only.
4. Consistency with the level and type of model: a system model groupings will be about population and partnership level groupings while a scheme model will group at the level of teams and care processes.



Check and refine

Key questions:

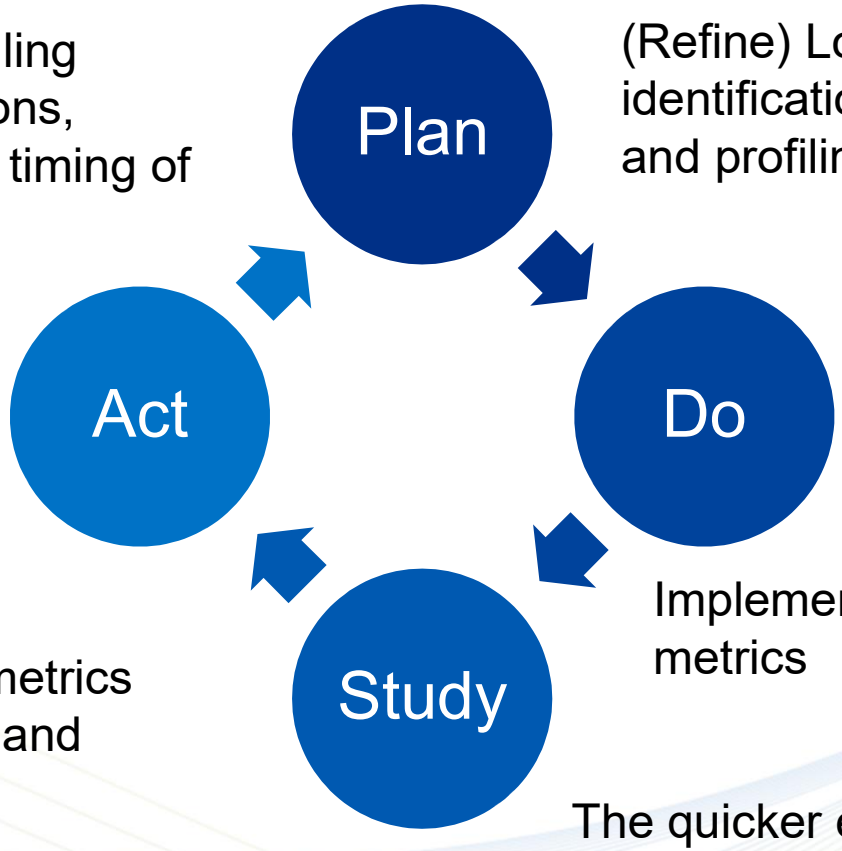
1. Does the model seem plausible?
2. Do the assumptions underpinning the model seem sensible?
3. Does it flow reasonably well from the inputs and activities?
4. Will the activities generate the outputs you have described?
5. Are the inputs sufficient to carry out the activities? Are they too much?
6. Has there been analytical input to assure credibility of data/ quantification of logic model?
7. Have the main strands been captured on one page? Is there too much detail?

Measurement framework: Identifying Metrics

1. Output and Outcomes identified as part of the logic modelling need to be translated into metrics that can be objectively measured.
2. This can be translated into a programme management tool which should collect and collate the metrics
3. It is important to profile when the changes are expected to happen and therefore when the output/ outcome is expected to change.
4. The data collated through the programme management tool can be compared to the profiled activity, outputs and outcomes.

Improvement Cycle (PDSA)

Review logic modelling including assumptions, interdependencies, timing of actions etc.



(Refine) Logic Modelling, identification of metrics and profiling of change

Implement plan, collect metrics

Compare collected metrics with profiled metrics and identify differences.

The quicker each cycle the quicker adaptation to inaccurate assumptions or changes in interdependencies and the more effective the project management

Summary ….a logic model

1. Is a planning tool & evaluation tool
2. Sets out our theory of change, making clear our assumptions
3. Makes clear the relationships between what we do and what results
4. Is a living document of our intentions that can change with the plans
5. Can help with both the thinking and planning stages
6. Can be developed into programme management tools
7. Are used to communicate change to others and aid adoption.
8. Enables the components of a programme to be set out in a consistent way, it is often used in evaluation. It provides the framework that can then be used to judge success against.

Additional resources

HM Treasury (2011, Supplements 2012) The Magenta Book: Guidance for Evaluation

HM Treasury (2013, updated 2015) The Green Book: Appraisal and Evaluation in Central Government

WK Kellog Foundation (2004) Logic Model Development Guide and Workbook

Midlands and Lancashire CSU Strategy Unit (2015) Using Logic Models in Evaluation: Briefing

University of Wisconsin (2008) Developing a Logic Model: Teaching and Training Guide

Hummelbrunner, R. (2011) Systems thinking and evaluation