

ImpResPAC stage 1 Results: Initial mapping of ImpRes tool and guide to develop ImpResPAC, compared with INSPECT element items

- Below is a comparison of ImpResPAC domain items and INSPECT element items.
- Rows with bolded font, have some level of overlap (high, medium or low).
- Rows with non-bolded font and grey cells in one column have no overlap between tools.
- **Key:**
 - **High level of overlap:** the ImpResPAC domain items overlap directly with the INSPECT element item, covering the same principles.
 - **Medium level of overlap:** the ImpResPAC domain item covers a similar principle as the INSPECT element item, but not the same.
 - **Low level of overlap:** the ImpResPAC domain items does not directly overlap with the INSPECT element item, but the domain and element has principles in common.

Additional File 2: ImpResPAC and INSPECT comparison (initial mapping completed as stage 1 of the study)

<i>ImpResPAC (initial mapping)</i>		<i>INSPECT (14)</i>		<i>Level of overlap:</i>
Domain:	Item wording (score of 5 – given if the proposed project fully addresses all items):	Element:	Item wording (score of 3 – highest score available, given for an element if all of the criteria requirements are met):	
Implementation research characteristics	The project explicitly seeks to address an implementation problem; it clearly describes the associated quality of care gap and evidence-based intervention identified to address the problem.	The care or quality gap	Explicit, well thought out description of the potential for improvement.	High
Implementation research characteristics	Clear, detailed, and strong justification provided to support the proposed project, supported by appropriate literature, and/or local data. If literature has been used to support the proposed project, this is up-to-date and has been critically appraised.	The care or quality gap	Clearly defined quality gap is supported by local setting data (i.e., evidence of chart review or other preliminary data) and appropriate citations from the literature.	High
		The care or quality gap	Proposed implementation and/or improvement study is clearly linked to a safety net setting.	<i>None</i>
Implementation research characteristics	Implementation aims and objectives are explicitly and clearly articulated and align with the proposed project design, methods, and measures.			<i>None</i>

Implementation research characteristics	Implementation stage(s) of the proposed project and the associated activities planned at each stage are described in detail.			None
Implementation research characteristics	Design of the proposed project is clearly and comprehensively described and positioned along the effectiveness-implementation research continuum (e.g., hybrid type 1, 2, 3, or pure implementation) and aligns appropriately to the aims and objectives of the project.			None
Implementation research characteristics	Clear rationale is provided for choice of research design supported by literature and/or local data (e.g., hybrid type 1 design will provide data justifying that the clinical intervention has strong face validity supporting applicability in a new setting, population, or delivery method).	Feasibility of proposed research design and methods	The proposed study includes appropriate methods, interventions, and other components that are achievable as a pilot study and are justified against potential alternatives.	Low
Theories, Frameworks, Models Domain	Clear, detailed, and strong justification is provided to support the selection of implementation theories, models and/or frameworks (framework hereafter), supported by appropriate literature, and/or data from implementation site(s)	Conceptual model and theoretical justification	An implementation and/or improvement science-specific conceptual model or framework is clearly described, with theoretical constructions explicitly described within the proposed setting, population, and intervention contexts.	High
Theories, Frameworks, Models Domain	The chosen implementation framework(s) inform and structure all aspects of the proposed project (i.e., project design, aims and objectives, data collection, including measures, and data analysis, where relevant).	Conceptual model and theoretical justification	The implementation and/or improvement science-specific conceptual model or framework is used to frame the proposed study in all aspects including the study questions, aims/objectives, hypotheses, process, and outcome measures.	High
		Conceptual model and theoretical justification	Some discussion may refer and describe how study findings would build upon or otherwise contribute to theory or the larger implementation and/or improvement science fields.	None
Theories, Frameworks, Models Domain	Constructs/elements/domains of implementation framework(s) are measured using psychometrically robust and/or pragmatic instruments.			None
Theories, Frameworks, Models Domain	If frameworks are applied pragmatically (i.e., not in its entirety), clear and strong justification is provided.			None
Theories, Frameworks, Models Domain	Proposed adaptations (above and beyond pragmatic application) to chosen frameworks are clearly and comprehensively described and strong justification is provided.			None

Theories, Frameworks, Models Domain	If more than one framework is proposed, the unique contribution of each is described.			None
Determinants of implementation: contextual factors	The project aims to prospectively identify factors likely to hinder or facilitate implementation efforts.			None
Determinants of implementation: contextual factors	Detailed and strong justification is provided to support the identification and selection of the chosen implementation framework, supported by appropriate literature.			None
Determinants of implementation: contextual factors	Clear and detailed description and justification is provided of suggested adaptations to the intervention and/or implementation strategy (if applicable). Adaptations are based on implementation determinants and maintain the core features of the intervention.			None
Determinants of implementation: contextual factors	Clear and detailed description of how implementation determinants will be identified.	Feasibility of proposed research design and methods	Potential barriers to implementation are clearly identified with potential plans to overcome those barriers.	High
Determinants of implementation: contextual factors	An appropriate theory, framework, or model (framework hereafter) has been selected to identify and understand the factors affecting implementation success or failure.			Medium
Determinants of implementation: contextual factors	The project aims to prospectively identify factors likely to hinder or facilitate implementation efforts.	Feasibility of proposed research design and methods	Explicitly describes preliminary data on the assessed organizational and political capacity and readiness for implementation (assessment completed prior to application/pilot).	Low
Determinants of implementation: contextual factors	Clear and detailed description of how implementation determinants will be identified.	Feasibility of proposed research design and methods	Preliminary capacity and readiness assessments were completed using a scale with established validity and reliability, or a scale that has undergone some validity and reliability testing.	Low
			May include strategies for how those opposed to change in the study setting will be involved with or have their concerns addressed by study processes or components.	None

			Evidence of support (e.g., letters) from the study setting that address how the proposed study aligns with the organization's priorities/policies.	None
Implementation Strategies	Implementation strategies are described in sufficient detail to allow replication.	Implementation strategy/process	Explicitly describes how implementation strategies will be observed or empirically tested.	Medium
Implementation Strategies	Implementation strategies will be (or have been) selected and tailored to overcome identified barriers to implementation and/or harness identified facilitators.			None
Implementation Strategies	Clear description of the methods used to select implementation strategies.			None
Implementation Strategies	Explicitly states the implementation outcome(s) that are targeted for improvement by the implementation strategy.			None
Implementation Strategies	Implementation strategy selection is theoretically and/or empirically justified, supported by relevant literature.	Implementation strategy/process	Explicitly describes and theoretically justifies the implementation strategies.	High
Implementation Strategies	Intention to involve patients and the public in the identification and selection of implementation strategies.			None
Implementation Strategies	Intention to involve stakeholders in the identification and selection of implementation strategies.			None
		Implementation strategy/process	Explicitly describes how implementation strategies link to the stated aims/setting/outcome measures of the proposed study.	None
		Implementation strategy/process	Implementation strategies are feasible given the pilot study timeline and budget constraints.	None
Service and Patient Outcomes	The degree of focus placed on measuring service and/or patient outcomes is guided by the strength of the evidence for the intervention in question.			None
Service and Patient Outcomes	Explicit alignment between service and/or patient outcomes to be collected and the proposed project aims and objectives.			None
Service and Patient Outcomes	Clear and explicit evidence that stakeholders were involved or will be involved in the selection of service and/or patient outcomes to be evaluated.			None
Service and Patient Outcomes	Explicit awareness that service and/or patient outcomes are not sufficient for understanding implementation success or failure.			None

Service and Patient Outcomes	A clear and detailed description of service and/or patient outcome data analysis plan is presented and is linked to implementation outcome data analysis plans.			None
Implementation outcomes	The proposed project includes the evaluation of implementation outcome(s).	Measurement and analysis section	Outcomes described are implementation and/or improvement science-related.	High
Implementation outcomes	The implementation outcomes of interest align with the project aims and objectives.	Measurement and analysis section	Outcomes are clearly linked to the proposed study aims.	High
Implementation outcomes	Where quantitative implementation outcome instrument(s) are proposed to be used to assess implementation outcome(s), evidence of its psychometric strength is provided.	Measurement and analysis section	Measurement and data analytic plans robustly describe how all variables and outcomes will be measured and are appropriate for the proposed study through a clear theoretical justification.	High
Implementation outcomes	Clear and explicit evidence that stakeholders were involved, or will be involved, in the identification and selection of relevant and important implementation outcomes to be evaluated.			None
Implementation outcomes	Clear and explicit evidence that patients/public were involved, or will be involved, in the identification selection of relevant and important implementation outcomes to be evaluated.			None
Implementation outcomes	The measurement method, unit of analysis and time point(s) of implementation outcome data collection are appropriate for the proposed project's aims and objectives.	Measurement and analysis section	The unit of analysis is appropriate for the proposed study.	High
Implementation outcomes	A clear and detailed description of implementation outcome data analysis plan is presented and is linked to service and patient outcomes data analysis, if applicable.			None
Unintended Consequences	Discussion of the intention to explore unintended consequences (including unexpected benefits, unexpected drawbacks and perverse results) that might occur as a result of implementation efforts.			None
	Project is designed to allow for the identification and effective management of unintended consequences.			None
Economic Evaluation	The type of economic evaluation and the economic project question has been clearly articulated.			None

Economic Evaluation	The perspective of the economic evaluation is clearly stated and justified in relation to the context of the research and the time horizon over which resource impacts and patient/population outcomes are to be evaluated is clearly indicated.			None
Economic Evaluation	There is a clear statement of how patient/population health outcomes are to be quantified.			None
Economic Evaluation	The approach to measurement of resource use (including resources used in implementation) and to costing resource use is clearly stated, including data sources.	Feasibility of proposed research design and methods	The budget and timeline are appropriate.	Low
Economic Evaluation	The methodological approach to evaluation and the approach to measurement of resource use (including resources used in implementation) and to costing resource use (including data sources) is clearly stated.			None
Economic Evaluation	The approach to sensitivity analysis to evaluate the robustness of conclusions to uncertainty around the value of key implementation, clinical, epidemiological and economic parameters is indicated.			None
Economic Evaluation	Clear and explicit recognition of implementation strategy cost during implementation phase and beyond initial implementation phase (scale up phase).			None
Stakeholder Involvement and Engagement		Stakeholder priorities, engagement in change	Comprehensive description of who all of the identifiable stakeholders are.	None
Stakeholder Involvement and Engagement		Stakeholder priorities, engagement in change	Clear understanding of stakeholder concerns related to the intervention as evidenced by a stakeholder analysis plan that describes how the applicant will collect comprehensive information on stakeholders' interests, interrelations, influences, preferences, and priorities.	None
Stakeholder Involvement and Engagement	Evidence that stakeholders were engaged and/or involved in developing the project proposal and are part of the research team.	Stakeholder priorities, engagement in change	Detailed description of how stakeholders were involved in the conceptual design of the intervention and in considering the implementation strategies, process, and outcomes.	High

Stakeholder Involvement and Engagement	Clear and explicit evidence of intention to engage and/or involve stakeholders in all relevant later stages of the project.			None
Stakeholder Involvement and Engagement	Clear and explicit rationale/purpose of engagement and/or involvement provided.			None
Stakeholder Involvement and Engagement	Informed by stakeholder preferences and priorities, the project proposes to be a partnership between researchers and relevant stakeholder(s) based upon shared power.	Stakeholder priorities, engagement in change	An explicit agreement (such as a memorandum of understanding) or evidence of collaboration between the stakeholders and the applicant that is explained with relevance to the proposed study process and how findings will be communicated.	Medium
Stakeholder Involvement and Engagement	Engagement and/or involvement methods are well described and appropriate.			None
Patient and Public Involvement	Evidence that patient, service users and the public were engaged and/or involved in developing the project proposal and are part of the research team.			None
Patient and Public Involvement	Clear and explicit evidence of intention to engage and/or involve patient, service users and the public in all relevant later stages of the project.			None
Patient and Public Involvement	Clear and explicit rationale/purpose of engagement and/or involvement provided.			None
Patient and Public Involvement	Informed by patient, service users and the public preferences and priorities, the project proposes to be a partnership between researchers and relevant patient, service users and the public based upon shared power.			None
Patient and Public Involvement	Engagement and/or involvement methods are well described and appropriate.			None
		Team experience with setting, treatment, and implementation process	Clearly describes how team experience relates to the study setting, treatment, and processes.	None

		Team experience with setting, treatment, and implementation process	Team description, biographical sketches, resumes/CVs depict a multidisciplinary skillset relevant to the proposed study setting, treatment, processes, and other needs.	None
		Team experience with setting, treatment, and implementation process	Staffing plan facilitates successful study completion without necessitating CIIS support.	None
		Team experience with setting, treatment, and implementation process	Clearly describes strengths of the research environment including resources and infrastructure.	None
		Team experience with setting, treatment, and implementation process	If principal investigator is considered junior or early career or novice to implementation science, senior leadership outside of CIIS has been identified to support study completion with mentoring and/or consultation.	None
		Policy/funding environment; leverage of support for sustaining change	The internal/external policy trends and/or funding environment are clearly described.	None
		Policy/funding environment; leverage of support for sustaining change	Potential impact of the intervention is explicitly linked to relevant policies and funding issues associated with a safety net setting.	None

		Policy/funding environment; leverage of support for sustaining change	The dissemination plan for study findings indicates what and how a contribution will be made to the broader policy level and safety net setting.	<i>None</i>
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