Supplementary material 4

Cross-tabulations of the 79 consolidated implementation strategies underlying the figures and results reported in the manuscript

Manuscript: Planned and emergent implementation strategies during national scale-up of hepatitis C point-of-care testing in Australia: a retrospective case study

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All tables were generated from the consolidated strategy matrix (Supplementary material 2; n = 79 distinct strategies). Definitions of the classification variables are given in Supplementary material 3. Percentages are row percentages unless otherwise indicated and are rounded to the nearest whole number; they may not sum to 100. Counts describe the configuration of strategies identified in the available data and should not be interpreted as indicators of strategy importance or effectiveness.

1. Trajectory by implementation domain

Table S4.1. Trajectory category by implementation domain (source for Results: Planned, adapted and emergent strategy trajectories).

Implementation domain	Planned, n (row %)	Planned then adapted, n (row %)	Emergent, n (row %)	Total, n
Developing stakeholder partnerships and governance	11 (48)	1 (4)	11 (48)	23
Training operators and assessing competency	1 (10)	4 (40)	5 (50)	10
Changing infrastructure, including testing platforms	4 (44)	1 (11)	4 (44)	9
Supporting evaluation and iterative learning	2 (22)	3 (33)	4 (44)	9
Adapting and tailoring the testing model to context	2 (22)	2 (22)	5 (56)	9
Engaging clients and communities	0 (0)	1 (17)	5 (83)	6
Providing technical assistance and troubleshooting	2 (40)	1 (20)	2 (40)	5
Supporting testing operators	1 (20)	0 (0)	4 (80)	5
Using funding and financial arrangements	1 (33)	2 (67)	0 (0)	3
Total	**24 (30)**	**15 (19)**	**40 (51)**	**79**

Row percentages; for the Total row, percentages are of all 79 strategies.

2. Delivery and initiating level

Table S4.2. Delivery level by implementation domain (source for Figure 3 and Results: Delivery level of implementation strategies).

Implementation domain	Central, n (row %)	Joint, n (row %)	Service, n (row %)	Total, n
Developing stakeholder partnerships and governance	15 (65)	8 (35)	0 (0)	23
Training operators and assessing competency	1 (10)	8 (80)	1 (10)	10
Changing infrastructure, including testing platforms	3 (33)	5 (56)	1 (11)	9
Supporting evaluation and iterative learning	4 (44)	5 (56)	0 (0)	9
Adapting and tailoring the testing model to context	2 (22)	5 (56)	2 (22)	9
Engaging clients and communities	1 (17)	3 (50)	2 (33)	6

Implementation domain	Central, n (row %)	Joint, n (row %)	Service, n (row %)	Total, n
Providing technical assistance and troubleshooting	1 (20)	2 (40)	2 (40)	5
Supporting testing operators	1 (20)	3 (60)	1 (20)	5
Using funding and financial arrangements	3 (100)	0 (0)	0 (0)	3
Total	**31 (39)**	**39 (49)**	**9 (11)**	**79**

Central, delivered primarily by the central program; Joint, shared between the central program and services; Service, delivered primarily by participating services. For the Total row, percentages are of all 79 strategies.

Table S4.3. Trajectory category by delivery level (source for Figure 3 and Results: Delivery level of implementation strategies).

Delivery level	Planned, n (row %)	Planned then adapted, n (row %)	Emergent, n (row %)	Total, n
Central	14 (45)	5 (16)	12 (39)	31
Joint	10 (26)	10 (26)	19 (49)	39
Service	0 (0)	0 (0)	9 (100)	9
Total	**24 (30)**	**15 (19)**	**40 (51)**	**79**

All nine service-delivered strategies were emergent; 31 of the 40 emergent strategies were delivered centrally (12) or jointly (19).

Table S4.4. Initiating level by implementation domain.

Implementation domain	National program, n (row %)	Service, n (row %)	Multiple levels, n (row %)	Total, n
Developing stakeholder partnerships and governance	21 (91)	2 (9)	0 (0)	23
Training operators and assessing competency	8 (80)	1 (10)	1 (10)	10
Changing infrastructure, including testing platforms	5 (56)	1 (11)	3 (33)	9
Supporting evaluation and iterative learning	9 (100)	0 (0)	0 (0)	9
Adapting and tailoring the testing model to context	4 (44)	2 (22)	3 (33)	9
Engaging clients and communities	1 (17)	4 (67)	1 (17)	6
Providing technical assistance and troubleshooting	4 (80)	0 (0)	1 (20)	5
Supporting testing operators	3 (60)	2 (40)	0 (0)	5
Using funding and financial arrangements	3 (100)	0 (0)	0 (0)	3
Total	**58 (73)**	**12 (15)**	**9 (11)**	**79**

Initiating level is the level responsible for initiating or authorising the strategy, inferred from the specified actor. No strategy was coded as jurisdictional/regional or unclear.

Table S4.5. Delivery level and trajectory category by initiating level.

Initiating level	Central, n (row %)	Joint, n (row %)	Service, n (row %)	Total, n
National program	30 (52)	26 (45)	2 (3)	58
Service	1 (8)	7 (58)	4 (33)	12
Multiple levels	0 (0)	6 (67)	3 (33)	9
Total	**31 (39)**	**39 (49)**	**9 (11)**	**79**

Initiating level	Planned, n (row %)	Planned then adapted, n (row %)	Emergent, n (row %)	Total, n
National program	21 (36)	13 (22)	24 (41)	58
Service	1 (8)	0 (0)	11 (92)	12
Multiple levels	2 (22)	2 (22)	5 (56)	9
Total	**24 (30)**	**15 (19)**	**40 (51)**	**79**

Of 58 nationally initiated strategies, 26 were delivered jointly with services and two primarily by services. Of 12 service-initiated strategies, 11 were emergent.

3. Timing: first introduction and continued activity

Table S4.6. Program phase of first introduction by trajectory category (source for Figure 2, left panel).

Program phase of first introduction	Planned, n (row %)	Planned then adapted, n (row %)	Emergent, n (row %)	Total, n
Pre-implementation	15 (54)	6 (21)	7 (25)	28
Early implementation	6 (18)	8 (24)	20 (59)	34
National scale-up	3 (18)	1 (6)	13 (76)	17
Ongoing delivery	0 (–)	0 (–)	0 (–)	0
Total	**24 (30)**	**15 (19)**	**40 (51)**	**79**

No strategy was identified in the available data as having been first introduced during ongoing delivery.

Table S4.7. Strategies active in each program phase by trajectory category (source for Figure 2, right panel).

Program phase	Planned (n = 24), n (%)	Planned then adapted (n = 15), n (%)	Emergent (n = 40), n (%)	All strategies (n = 79), n (%)
Pre-implementation	15 (63)	6 (40)	7 (18)	28 (35)
Early implementation	20 (83)	14 (93)	23 (58)	57 (72)
National scale-up	19 (79)	15 (100)	35 (88)	69 (87)
Ongoing delivery	17 (71)	15 (100)	34 (85)	66 (84)

A strategy is counted as active in a phase if it was first introduced in that phase or documented as continuing in that phase. Percentages are of the number of strategies in each trajectory category (column denominators shown in the header). Because most strategies remained active after introduction, columns do not sum to the number of strategies.

Table S4.8. Program phase of first introduction by implementation domain (summary of Figure 1).

Implementation domain	Pre-implementation, n (row %)	Early implementation, n (row %)	National scale-up, n (row %)	Total, n
Developing stakeholder partnerships and governance	16 (70)	4 (17)	3 (13)	23
Training operators and assessing competency	1 (10)	7 (70)	2 (20)	10
Changing infrastructure, including testing platforms	2 (22)	5 (56)	2 (22)	9
Supporting evaluation and iterative learning	3 (33)	3 (33)	3 (33)	9
Adapting and tailoring the testing model to context	1 (11)	4 (44)	4 (44)	9
Engaging clients and communities	1 (17)	5 (83)	0 (0)	6
Providing technical assistance and troubleshooting	1 (20)	4 (80)	0 (0)	5
Supporting testing operators	1 (20)	2 (40)	2 (40)	5
Using funding and financial arrangements	2 (67)	0 (0)	1 (33)	3
Total	**28 (35)**	**34 (43)**	**17 (22)**	**79**

Ongoing delivery is omitted because no strategy was first introduced in that phase. For the Total row, percentages are of all 79 strategies.

Table S4.9. Strategies active in each program phase by implementation domain (summary of Figure 1).

Implementation domain	Strategies, n	Active in Pre-impl., n	Active in Early impl., n	Active in Scale-up, n	Active in Ongoing, n
Developing stakeholder partnerships and governance	23	16	16	15	15
Training operators and assessing competency	10	1	8	10	9
Changing infrastructure, including testing platforms	9	2	6	8	8

Implementation domain	Strategies, n	Active in Pre-impl., n	Active in Early impl., n	Active in Scale-up, n	Active in Ongoing, n
Supporting evaluation and iterative learning	9	3	6	9	8
Adapting and tailoring the testing model to context	9	1	5	9	8
Engaging clients and communities	6	1	6	6	6
Providing technical assistance and troubleshooting	5	1	5	5	5
Supporting testing operators	5	1	3	5	5
Using funding and financial arrangements	3	2	2	2	2
Total	**79**	**28**	**57**	**69**	**66**

Pre-impl., pre-implementation and planning (2021); Early impl., early implementation (2022); Scale-up, national scale-up (2023–2025); Ongoing, ongoing delivery (2026 to 13 April 2026). A strategy is counted as active in a phase if it was first introduced in that phase or documented as continuing in that phase.

4. Evidence provenance

Table S4.10. Trajectory category by evidence provenance (source for Results: Planned, adapted and emergent strategy trajectories, provenance paragraph).

Evidence provenance	Planned, n (row %)	Planned then adapted, n (row %)	Emergent, n (row %)	Total, n
Documentary	21 (81)	3 (12)	2 (8)	26
Documentary and interview	1 (8)	11 (92)	0 (0)	12
Interview	0 (0)	1 (3)	36 (97)	37
Program-team validation (primary-source link pending)	2 (50)	0 (0)	2 (50)	4
Total	**24 (30)**	**15 (19)**	**40 (51)**	**79**

Twenty-two of the 24 planned strategies were supported by contemporaneous documentary evidence, alone (21) or with interview evidence (1); 36 of the 40 emergent strategies were identified through retrospective interview evidence only; 12 strategies were supported by both documentary and interview evidence. Program-team validation records (S82–S85) are provisional pending links to primary sources.

5. Planning implication categories

Table S4.11. Trajectory category by planning implication category (basis for Table 2 of the manuscript).

Planning implication	Planned, n (row %)	Planned then adapted, n (row %)	Emergent, n (row %)	Total, n
Pre-specify	23 (61)	9 (24)	6 (16)	38
Pre-authorize local configuration	0 (0)	3 (12)	23 (88)	26
Build capacity to detect and respond	1 (7)	3 (20)	11 (73)	15
Total	**24 (30)**	**15 (19)**	**40 (51)**	**79**

Table S4.12. Delivery level by planning implication category.

Planning implication	Central, n (row %)	Joint, n (row %)	Service, n (row %)	Total, n
Pre-specify	22 (58)	16 (42)	0 (0)	38
Pre-authorize local configuration	2 (8)	15 (58)	9 (35)	26
Build capacity to detect and respond	7 (47)	8 (53)	0 (0)	15
Total	**31 (39)**	**39 (49)**	**9 (11)**	**79**

Table S4.13. Planning implication category by implementation domain.

Implementation domain	Pre-specify, n (row %)	Pre-authorize local configuration, n (row %)	Build capacity to detect and respond, n (row %)	Total, n
Developing stakeholder partnerships and governance	17 (74)	3 (13)	3 (13)	23
Training operators and assessing competency	4 (40)	4 (40)	2 (20)	10

Implementation domain	Pre-specify, n (row %)	Pre-authorize local configuration, n (row %)	Build capacity to detect and respond, n (row %)	Total, n
Changing infrastructure, including testing platforms	4 (44)	4 (44)	1 (11)	9
Supporting evaluation and iterative learning	4 (44)	0 (0)	5 (56)	9
Adapting and tailoring the testing model to context	3 (33)	5 (56)	1 (11)	9
Engaging clients and communities	1 (17)	5 (83)	0 (0)	6
Providing technical assistance and troubleshooting	2 (40)	2 (40)	1 (20)	5
Supporting testing operators	1 (20)	3 (60)	1 (20)	5
Using funding and financial arrangements	2 (67)	0 (0)	1 (33)	3
Total	**38 (48)**	**26 (33)**	**15 (19)**	**79**

Planning implication categories are interpretive, strategy-level classifications based on the function of each strategy and its dependence on local context or on information generated during delivery (Supplementary material 3, Table S3.7). They are not estimates of strategy effectiveness.

6. Supporting instances

Table S4.14. Number of coded strategy instances supporting the consolidated strategies, by trajectory category.

Trajectory category	Strategies, n	Supporting instances, n	Instances per strategy, median	Instances per strategy, range
Planned	24	53	1	1–8
Planned then adapted	15	131	9	3–19
Emergent	40	139	2.5	1–16
Total	**79**	**323**	**3**	**1–19**

Counts of supporting instances reflect documentation frequency across program documents, meeting records and interviews, and should not be interpreted as indicators of strategy importance or effectiveness. Planned-then-adapted strategies have the most supporting instances because, by definition, they are supported by prospective evidence and by later evidence of adaptation.