Sparked
Chronic Condition Management Clinical Focus Group (CCM CFG)

Wednesday 21st May 2025
1:00pm – 3:00pm

Australia's National Science Agency

Acknowledgement of Country

We acknowledge the Traditional Custodians of the land

on which we all gather today.

We pay our respect to elders past, present, and emerging and extend our respect to all Aboriginal and Torres Strait Islander people, acknowledging the First Peoples as the first scientists, educators and healers.

'Eternal Wisdom, Infinite Innovation'
artwork by Rachael Sarra, working with Gilimbaa.

Agenda

Item	Topic
1	Welcome & general updates • CCM CFG webpage live • Meeting materials
3	Workshop activity 1: Chronic Condition Management Journey Wheels
4	Workshop activity 2: Detailed CCM Journey Timeline
5	Future meetings & upcoming events

Sparked HL7 FHIR

Reminder that this meeting is being recorded

Purpose of Chronic Condition Management Clinical Focus Group (CCM CFG)

- The Sparked Chronic Condition Management Clinical Focus Group (CCM CFG) is a **sub-group of the Sparked Clinical Design Group (CDG)**

- **Time limited** committee, subject to the Sparked program requirements

- Provide targeted clinical support to enable the development of **Chronic Condition Management priorities within the Sparked FHIR Accelerator,** e.g.
  - Create example clinical scenarios related to management of a chronic condition to help in the development of the AUCDI and FHIR Implementation Guides
  - Create materials to give clinical context & understanding to our technical or non-clinical community members

CCM CFG Scope

Clinical guidance and expertise on chronic condition management related user scenarios, workflows, data flows, challenges, opportunities, etc

Creation of journey(s) highlighting the complexities of chronic condition management.

Identifying considerations regarding chronic condition management template(s) which supports team care/shared care.

Provide clinical input and insight to relevant FHIR IGs and/or Technical Design Group(s) as required

Support AUCDI development as required by the Sparked CDG

Assist in developing test data or materials to support clinical education and understanding of CCM (if required)

Sparked HL7 FHIR

CCM CFG – Out of Scope

AUCDI data groups

- This remain the remit of the Sparked CDG

FHIR Implementation Guides

- These remain with the technical design group(s) and/or developers

Broader policy discussions regarding reforms, implementations, funding arrangements etc. not within the scope of the Sparked FHIR Accelerator program.

Determining or defining specific clinical care pathways, guidelines, or treatment recommendations.

- **Materials developed in this forum are indicative clinical journeys or workflows, and do not specify a required or recommended clinical process or pathway.**
- **Not comprehensive or inclusive of all possible scenarios**

CCM CFG webpage now live!

[Sparked Chronic Condition Management Clinical Focus Group – Sparked]

[CCM CFG Meeting 1 (4 April 2025)]

[CCM CFG Meeting 2 (2 May 2025)]

Sparked HL7 FHIR

What we started with during Meeting 2…

High-level, multiple flows/journeys

What we started with during Meeting 2…

Detailed ‘timeline’ based example

Version 0.1 Chronic Condition Management Consumer Journey Timeline

Diabetes Care Scenario

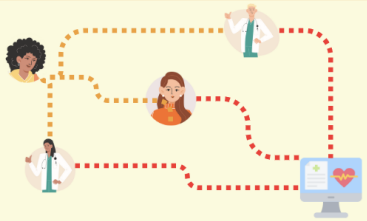
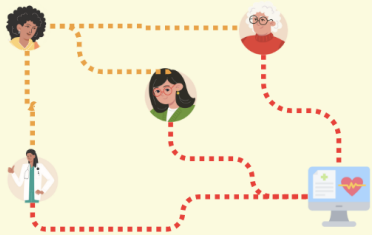
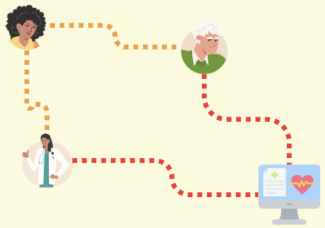
Maria is a 58-year-old woman recently diagnosed with Type 2 Diabetes.

- **Maria** — Person aged 58
- **George** — Maria’s husband
- **Dr Jones** — Maria’s GP
- **Tim** — Credentialled Diabetes Educator (CDE)
- **Kate** — Dietitian
- **Josh** — Exercise Physiologist
- **Peter** — Endocrinologist
- **Cindy** — Pharmacist
- **Carol** — Optometrist
- **Jessica** — Podiatrist
- **James** — Psychologist

Timeline

Diagnosis of Type 2 Diabetes	First Treatment Plan Established	Early Review	Complication Prevention Focus	Annual Cycle of Care Completed

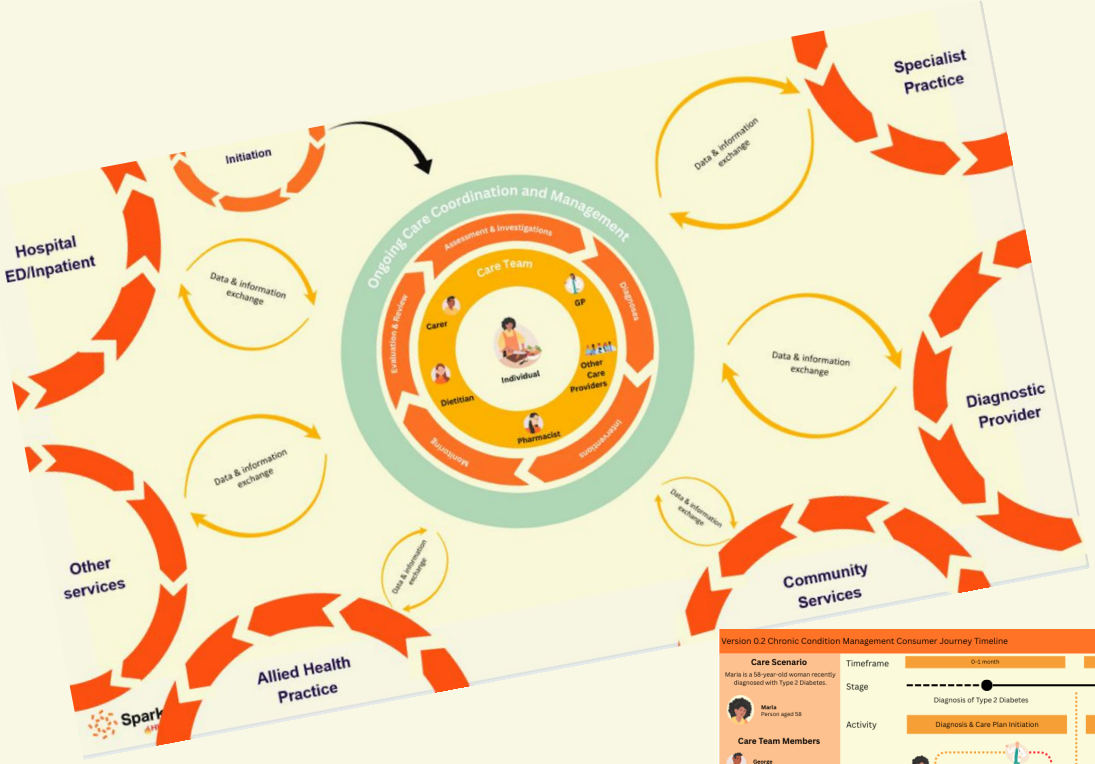
Activity

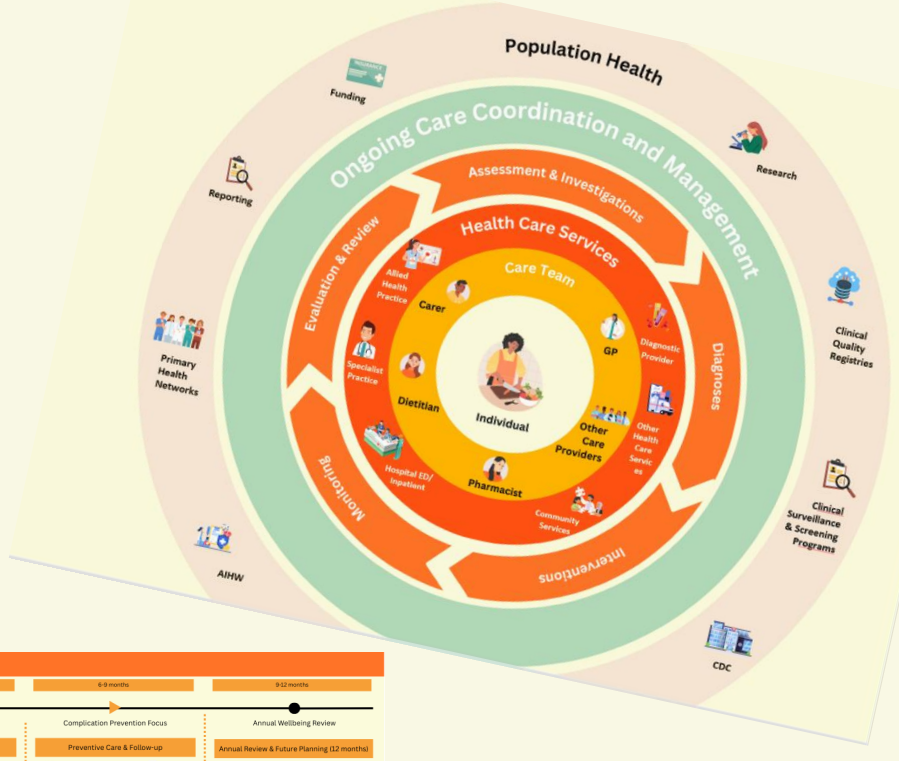
Diagnosis & Education (0–1 month)	First Plan & Lifestyle Shift (1–3 months)	Quarterly Check-In (3–6 months)	9-Month Review (Risk Detection)	Annual Review & Future Planning (12 months)
				
Maria feels overwhelmed by her diagnosis but is relieved to have an explanation for recent fatigue. Maria’s GP Dr Jones explains the diagnosis and refers Maria to specialists. Maria meets with Tim the Credentialled Diabetes Educator (CDE). Maria learns how to monitor her glucose.	Kate the Dietitian creates a tailored nutrition plan for Maria and teaches her how to track food. Josh the Exercise Physiologist creates a tailored activity plan and Maria starts walking daily. Maria’s GP prescribes her medication.	Maria reports fatigue and some confusion around medications. GP refers Maria to an endocrinologist for further investigation. Maria’s pharmacist also provides a Home Medicines Review.	Minor neuropathy detected in foot check; eye check clear. Maria is reassured. Podiatrist updates risk classification; Optometrist uploads report.	Maria reflects on her progress. Mild emotional distress discussed. GP reviews the full cycle; refers to psychologist; renews CarePlan.

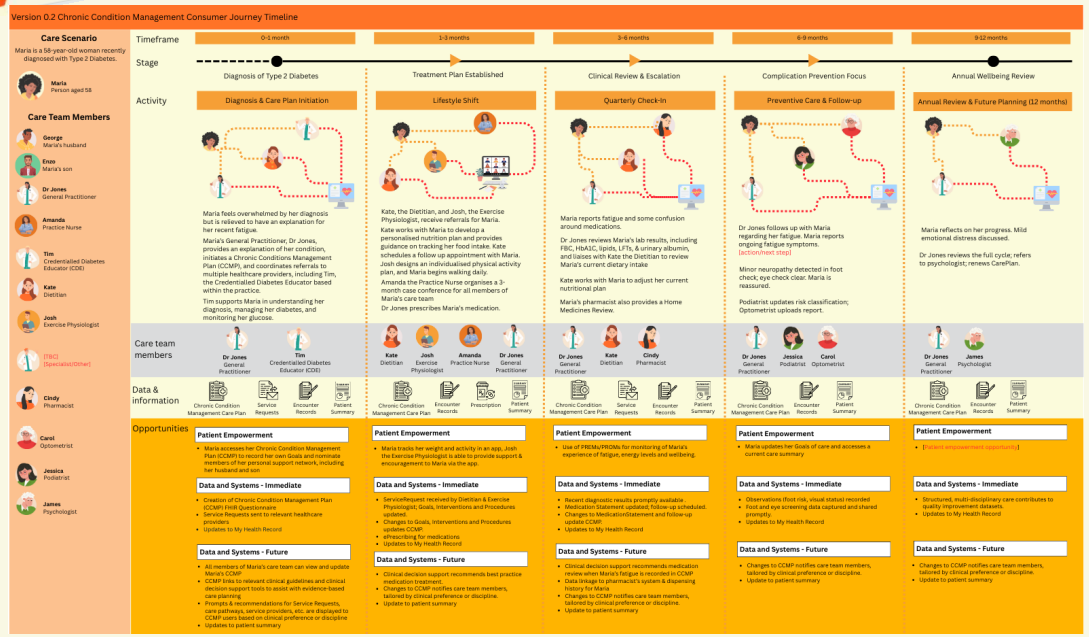
Opportunities

Shared Care Visibility	Patient Empowerment	Alert-Driven Care	Real-Time Health Monitoring	System-Wide Learning
All clinicians across care team can view and update Maria’s CarePlan.	Maria tracks glucose and activity in an app and accesses a care summary.	Trigger-based prompts recommend medication review after fatigue flagged.	Foot and eye screening data captured and shared promptly.	Structured, multi-disciplinary care contributes to quality improvement datasets.
Data and Systems	**Data and Systems**	**Data and Systems**	**Data and Systems**	**Data and Systems**
Creation of Condition, CarePlan, and ServiceRequest resources; updates to My Health Record.	ServiceRequest → Physiotherapist; Goal and Procedure records updated.	ReferralRequest to Endocrinologist; MedicationStatement and CarePlan updated.	Observation (foot risk, visual status), follow-up scheduled in CarePlan.	Bundle of Observation results (HbA1c, lipids, kidney), updated CarePlan.

Meeting 3…3 diagrams!







Sparked HL7 FHIR

Workshop activity 1: Chronic Condition Management Journey Wheels

Consumer Journey

1. Visit GP

Assessment

2. Visit Pathologist

Diagnosis Chronic Condition

3. Return to GP

Management & Care Coordination

4. Day Surgery

Interventions

5. Post-Op Review

Another Journey

6. Return to GP

Monitoring

7. Visit Pharmacy

Evaluation & Review

8. Prevention & Maintenance

Individual

Another Journey

Another Journey

Another Journey

Allied Health Journey

Pathology Laboratory Journey

Hospital Journey

GP Journey

Feedback on Phases of Care

Assessment Phase Feedback

1. Encounter/Observation phase
   - Initiation of encounter or interaction due to signs, symptoms, screening test results, or other reason for encounter.
2. Assessment/Investigation phase
   - Clinical investigation, triage, and initial assessment by care providers.
   - Consider layering these as a starting wheel or input funnel to the system.

Diagnosis Phase Feedback

Diagnosis Process Wheel:

- Could be placed as a distinct wheel or layer, possibly at the top of the diagram.
- Not always linear — allow for back-and-forth flow, reassessments, and evolution over time.

Evaluation & Review Phase Feedback

- This phase should be integrated with the assessment process.
- Emphasize continuous evaluation and re-assessment, forming loops back into care planning and service delivery.

Consolidated feedback on wheels

Central Wheel - Concentric Circles

- Reflect levels of service and roles: inner care team, outer layers for additional/specialist services.
- Ongoing care coordination & management circle

Wheels or Cogs

- Each ‘wheel’ represents a service or process with defined entry (referral) and feedback (results).
- Wheels may engage/disengage to show dynamic, time-based or condition-specific participation or involvement.

Arrows & Movement

- Use arrows between wheels to show ‘in/out’ for referrals and results, ongoing feedback loops
- Represent data flow and service transitions (potentially in a separate diagram).
- Consider movement/animation for clarity, especially in feedback loops.

Maze Concept

- Consider if a maze concept may be used to help demonstrate complexity of care journey: sometimes direct, sometimes involving loops and reassessments.

Possible Missing Wheels

- Nursing
- Research
- Disease screening and registries
- Specialist (consider private vs. hospital-based)

Consolidated feedback on wheels

Nominated Practitioner

- Essential for oversight of each loop; must have access and feedback mechanisms.

Care Setting vs Profession

- Clarify where wheel is representing the care setting, or interaction with specific profession, e.g.
  - Hospital = Setting
  - Allied Health Provider = Profession:

Funding:

- Consider if/where to show funding flows to inform understanding of service access and delivery.

Icons vs. Tasks:

- Use icons to represent roles/personnel, while tasks/timeline elements may be better visualized elsewhere.

Remove ‘Steps’

- Remove the ‘Steps’ associated to the central wheel as too specific/task oriented

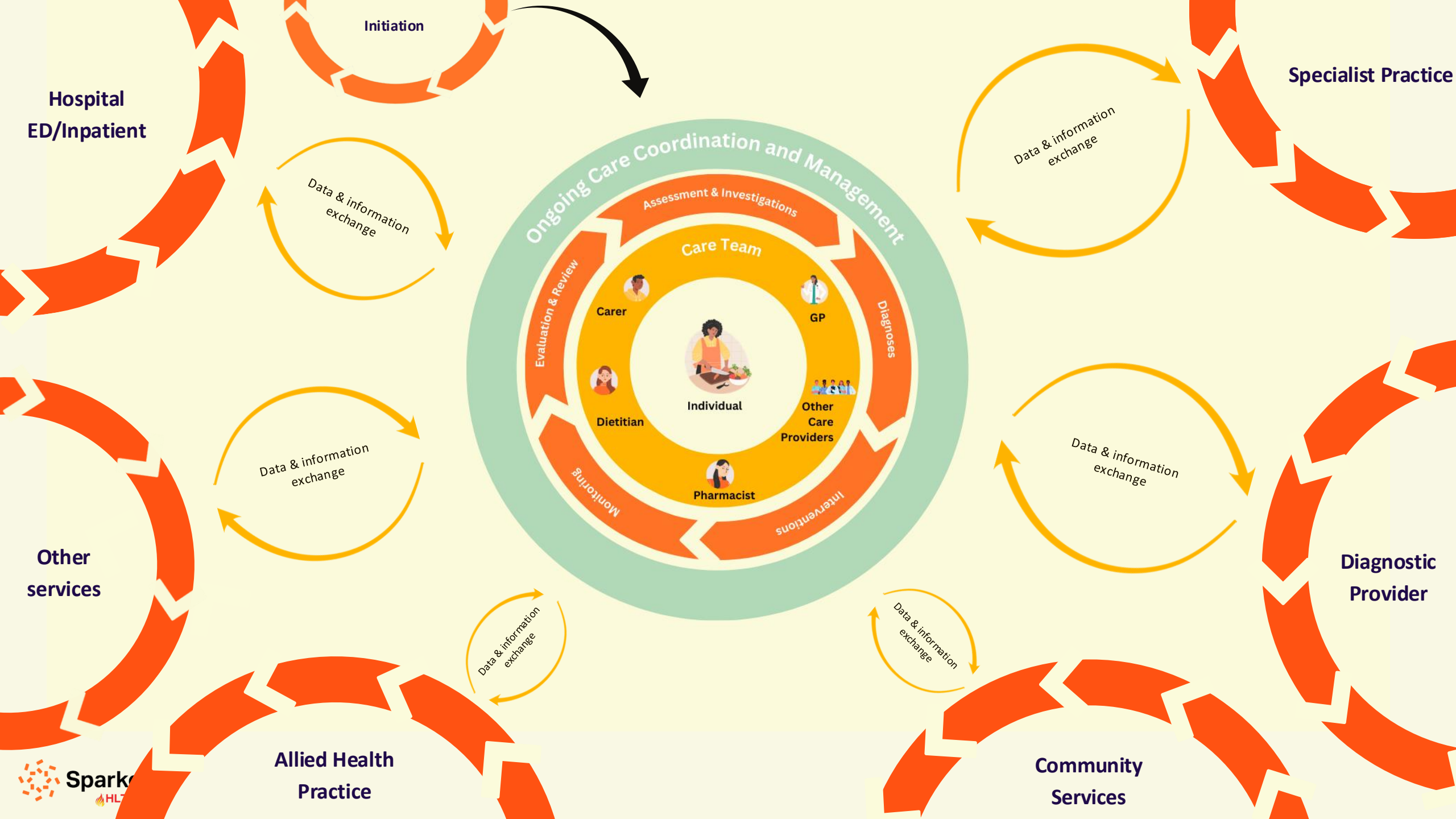
Consolidated feedback on wheels

Framing Around Data and Service Interaction

- Model **service requests out** and **responses (feedback/data) in**.
- Key elements:
  - **Consultations**
  - **Procedures**
  - **Medications**
- **Not every wheel needs to show full dimensions** (time, setting, person) — just **reference them** as needed.

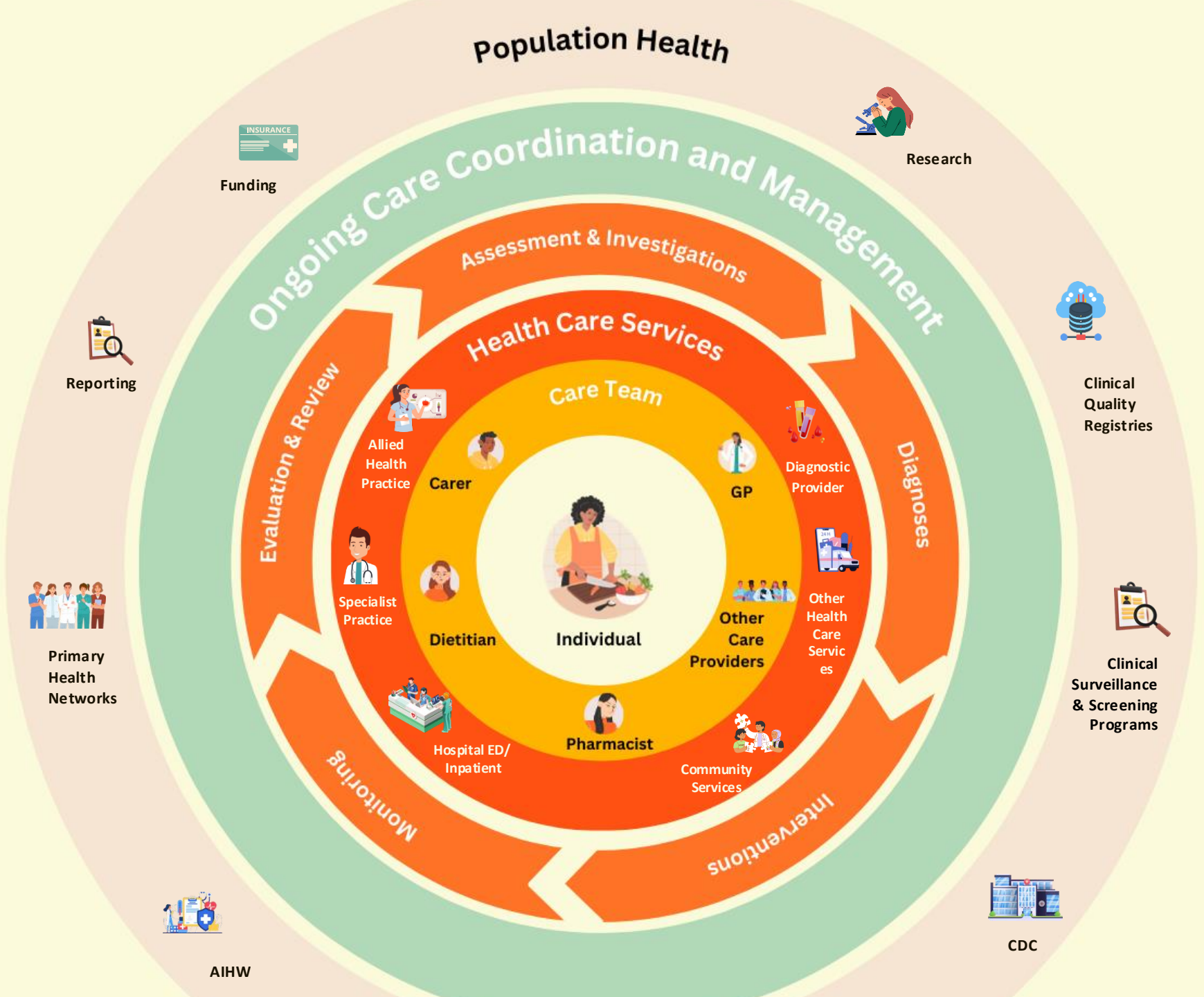
Specific Layout Suggestions

- **Central wheel – mini-internal-circle**: Core care team.
- **Concentric service layers**: Supporting and specialist care.
- **Top wheel**: Assessment → Diagnosis → Evaluation.
- **Bridges**: Indicate interaction/data flow between wheels.
- **Stacked wheels**: To show presence and layering of multiple chronic conditions.


Initiation
Hospital
ED/Inpatient
Specialist Practice
Data & information exchange
Data & information exchange
Ongoing Care Coordination and Management
Assessment & Investigations
Diagnoses
Interventions
Monitoring
Evaluation & Review
Care Team
Carer
GP
Dietitian
Other Care Providers
Pharmacist
Individual
Data & information exchange
Data & information exchange
Other services
Diagnostic Provider
Data & information exchange
Data & information exchange
Allied Health Practice
Community Services

Meeting 3 Discussion

- Need to make sure we include dentists in this universe!
- “Specialists” – should be “Medical specialists”
- In care team wheel. - consider lifting higher to be more generic
  - GP
  - Family and carers
  - Other care providers
  - Other health professionals and organisations
  - Pharmacist
- Make individual wheel bigger
- Outer wheels – don’t need to be wheels? Can be icons – so it look like hub and spoke?


Population Health
Ongoing Care Coordination and Management
Assessment & Investigations
Diagnoses
Interventions
Monitoring
Evaluation & Review
Health Care Services
Care Team
Individual
Carer
Allied Health Practice
GP
Diagnostic Provider
Specialist Practice
Dietitian
Other Care Providers
Other Health Care Services
Hospital ED/ Inpatient
Pharmacist
Community Services
Funding
Research
Reporting
Clinical Quality Registries
Primary Health Networks
Clinical Surveillance & Screening Programs
AIHW
CDC

Meeting 3 Discussion

- Rename Ongoing care coordination and management – to “Ongoing care” – is it a wheel or is it a title of the wheel
  - Consider word “continuous”
- Focus on population health – simplify the internal rings?
  - Reduce messiness
  - Consider population health as a parallel path

Workshop activity 2: Detailed CCM Journey Timeline

Chronic Condition Management Consumer Journey Timeline

Previous

Version 0.1 Chronic Condition Management Consumer Journey Timeline

Diabetes Care Scenario

Maria is a 58-year-old woman recently diagnosed with Type 2 Diabetes.

- **Maria** — Person aged 58
- **George** — Maria's husband
- **Dr Jones** — Maria's GP
- **Tim** — Credentialled Diabetes Educator (CDE)
- **Kate** — Dietitian
- **Josh** — Exercise Physiologist
- **Peter** — Endocrinologist
- **Cindy** — Pharmacist
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- **Jessica** — Podiatrist
- **James** — Psychologist

Timeline

Diagnosis of Type 2 Diabetes	First Treatment Plan Established	Early Review	Complication Prevention Focus	Annual Cycle of Care Completed

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		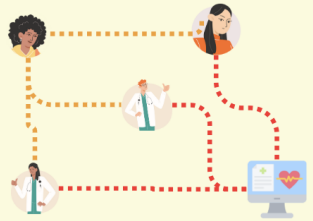	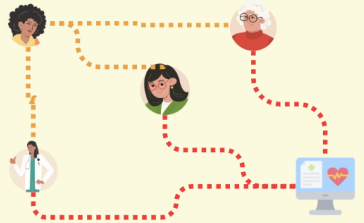	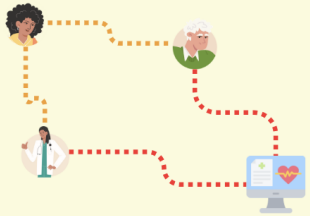
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Opportunities

Shared Care Visibility	Patient Empowerment	Alert-Driven Care	Real-Time Health Monitoring	System-Wide Learning
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Creation of Condition, CarePlan, and ServiceRequest resources; updates to My Health Record.	ServiceRequest → Physiotherapist; Goal and Procedure records updated.	ReferralRequest to Endocrinologist; MedicationStatement and CarePlan updated.	Observation (foot risk, visual status), follow-up scheduled in CarePlan.	Bundle of Observation results (HbA1c, lipids, kidney), updated CarePlan.

Sparked HL7 FHIR

Chronic Condition Management Consumer Journey Timeline

Updated

Version 0.2 Chronic Condition Management Consumer Journey Timeline

Care Scenario

Maria is a 58-year-old woman recently diagnosed with Type 2 Diabetes.

Maria — Person aged 58

Care Team Members

- **George** — Maria's husband
- **Enzo** — Maria's son
- **Dr Jones** — General Practitioner
- **Amanda** — Practice Nurse
- **Tim** — Credentialled Diabetes Educator (CDE)
- **Kate** — Dietitian
- **Josh** — Exercise Physiologist
- [TBC] [Specialist/Other]
- **Cindy** — Pharmacist
- **Carol** — Optometrist
- **Jessica** — Podiatrist
- **James** — Psychologist

	0–1 month	1–3 months	3–6 months	6–9 months	9–12 months
Timeframe					
Stage	Diagnosis of Type 2 Diabetes	Treatment Plan Established	Clinical Review & Escalation	Complication Prevention Focus	Annual Wellbeing Review
Activity	Diagnosis & Care Plan Initiation	Lifestyle Shift	Quarterly Check-In	Preventive Care & Follow-up	Annual Review & Future Planning (12 months)
					
	Maria feels overwhelmed by her diagnosis but is relieved to have an explanation for her recent fatigue. Maria's General Practitioner, Dr Jones, provides an explanation of her condition, initiates a Chronic Conditions Management Plan (CCMP), and coordinates referrals to multiple healthcare providers, including Tim, the Credentialled Diabetes Educator based within the practice. Tim supports Maria in understanding her diagnosis, managing her diabetes, and monitoring her glucose.	Kate, the Dietitian, and Josh, the Exercise Physiologist, receive referrals for Maria. Kate works with Maria to develop a personalised nutrition plan and provides guidance on tracking her food intake. Kate schedules a follow up appointment with Maria. Josh designs an individualised physical activity plan, and Maria begins walking daily. Amanda the Practice Nurse organises a 3-month case conference for all members of Maria's care team Dr Jones prescribes Maria's medication.	Maria reports fatigue and some confusion around medications. Dr Jones reviews Maria's lab results, including FBC, HbA1C, lipids, LFTs, & urinary albumin, and liaises with Kate the Dietitian to review Maria's current dietary intake Kate works with Maria to adjust her current nutritional plan Maria's pharmacist also provides a Home Medicines Review.	Dr Jones follows up with Maria regarding her fatigue. Maria reports ongoing fatigue symptoms. [action/next step] Minor neuropathy detected in foot check; eye check clear. Maria is reassured. Podiatrist updates risk classification; Optometrist uploads report.	Maria reflects on her progress. Mild emotional distress discussed. Dr Jones reviews the full cycle; refers to psychologist; renews CarePlan.
Care team members	Dr Jones (General Practitioner); Tim (Credentialled Diabetes Educator (CDE))	Kate (Dietitian); Josh (Exercise Physiologist); Amanda (Practice Nurse); Dr Jones (General Practitioner)	Dr Jones (General Practitioner); Kate (Dietitian); Cindy (Pharmacist)	Dr Jones (General Practitioner); Jessica (Podiatrist); Carol (Optometrist)	Dr Jones (General Practitioner); James (Psychologist)
Data & information	Chronic Condition Management Care Plan; Service Requests; Encounter Records; Patient Summary	Chronic Condition Management Care Plan; Encounter Records; Prescription; Patient Summary	Chronic Condition Management Care Plan; Service Requests; Encounter Records; Patient Summary	Chronic Condition Management Care Plan; Encounter Records; Patient Summary	Chronic Condition Management Care Plan; Encounter Records; Patient Summary
Opportunities	**Patient Empowerment** • Maria accesses her Chronic Condition Management Plan (CCMP) to record her own Goals and nominate members of her personal support network, including her husband and son **Data and Systems - Immediate** • Creation of Chronic Condition Management Plan (CCMP) FHIR Questionnaire • Service Requests sent to relevant healthcare providers • Updates to My Health Record **Data and Systems - Future** • All members of Maria's care team can view and update Maria's CCMP • CCMP links to relevant clinical guidelines and clinical decision support tools to assist with evidence-based care planning • Prompts & recommendations for Service Requests, care pathways, service providers, etc. are displayed to CCMP users based on clinical preference or discipline • Updates to patient summary	**Patient Empowerment** • Maria tracks her weight and activity in an app, Josh the Exercise Physiologist is able to provide support & encouragement to Maria via the app. **Data and Systems - Immediate** • ServiceRequest received by Dietitian & Exercise Physiologist; Goals, Interventions and Procedures updated. • Changes to Goals, Interventions and Procedures updates CCMP. • ePrescribing for medications • Updates to My Health Record **Data and Systems - Future** • Clinical decision support recommends best practice medication treatment. • Changes to CCMP notifies care team members, tailored by clinical preference or discipline. • Update to patient summary	**Patient Empowerment** • Use of PREMs/PROMs for monitoring of Maria's experience of fatigue, energy levels and wellbeing. **Data and Systems - Immediate** • Recent diagnostic results promptly available . • Medication Statement updated; follow-up scheduled. • Changes to MedicationStatement and follow-up update CCMP. • Updates to My Health Record **Data and Systems - Future** • Clinical decision support recommends medication review when Maria's fatigue is recorded in CCMP • Data linkage to pharmacist's system & dispensing history for Maria • Changes to CCMP notifies care team members, tailored by clinical preference or discipline. • Update to patient summary	**Patient Empowerment** • Maria updates her Goals of care and accesses a current care summary **Data and Systems - Immediate** • Observations (foot risk, visual status) recorded • Foot and eye screening data captured and shared promptly. • Updates to My Health Record **Data and Systems - Future** • Changes to CCMP notifies care team members, tailored by clinical preference or discipline. • Update to patient summary	**Patient Empowerment** • [Patient empowerment opportunity] **Data and Systems - Immediate** • Structured, multi-disciplinary care contributes to quality improvement datasets. • Updates to My Health Record **Data and Systems - Future** • Changes to CCMP notifies care team members, tailored by clinical preference or discipline. • Update to patient summary

Story/Journey

	0–1 month	1–3 months	3–6 months	6-9 months	9-12 months
Timeframe					
Stage	Diagnosis of Type 2 Diabetes	Treatment Plan Established	Clinical Review & Escalation	Complication Prevention Focus	Annual Wellbeing Review
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			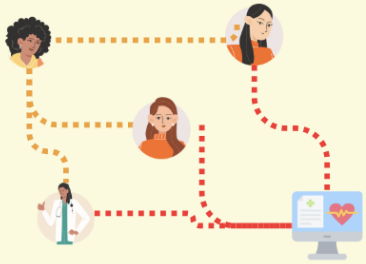	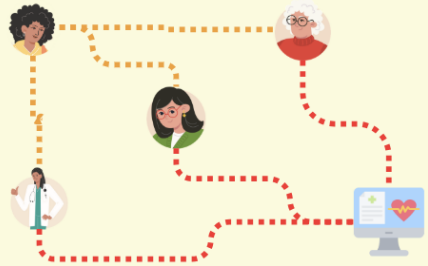	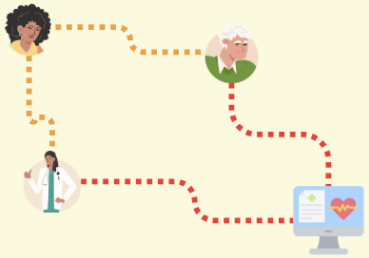
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Care team members	**Dr Jones** General Practitioner **Tim** Credentialled Diabetes Educator (CDE)	**Kate** Dietitian **Josh** Exercise Physiologist **Amanda** Practice Nurse **Dr Jones** General Practitioner	**Dr Jones** General Practitioner **Kate** Dietitian **Cindy** Pharmacist	**Dr Jones** General Practitioner **Jessica** Podiatrist **Carol** Optometrist	**Dr Jones** General Practitioner **James** Psychologist
Data & information	Chronic Condition Management Care Plan Service Requests Encounter Records Patient Summary	Chronic Condition Management Care Plan Encounter Records Prescription Patient Summary	Chronic Condition Management Care Plan Service Requests Encounter Records Patient Summary	Chronic Condition Management Care Plan Encounter Records Patient Summary	Chronic Condition Management Care Plan Encounter Records Patient Summary

Sparked HL7 FHIR

Opportunities

Grouped by:

- Patient Empowerment
- Data and Systems – Immediate (considering next 1 – 3 years)
- Data and Systems – Future (longer timeframe, requires additional infrastructure, policy, etc. changes.
  Note: still within the context of healthcare information exchange/interoperability/Sparked)

Opportunities

Patient Empowerment

- Maria accesses her Chronic Condition Management Plan (CCMP) to record her own Goals and nominate members of her personal support network, including her husband and son

Data and Systems - Immediate

- Creation of Chronic Condition Management Plan (CCMP) FHIR Questionnaire
- Service Requests sent to relevant healthcare providers
- Updates to My Health Record

Data and Systems - Future

- All members of Maria's care team can view and update Maria's CCMP
- CCMP links to relevant clinical guidelines and clinical decision support tools to assist with evidence-based care planning
- Prompts & recommendations for Service Requests, care pathways, service providers, etc. are displayed to CCMP users based on clinical preference or discipline
- Updates to patient summary

Patient Empowerment

- Maria tracks her weight and activity in an app, Josh the Exercise Physiologist is able to provide support & encouragement to Maria via the app.

Data and Systems - Immediate

- ServiceRequest received by Dietitian & Exercise Physiologist; Goals, Interventions and Procedures updated.
- Changes to Goals, Interventions and Procedures updates CCMP.
- ePrescribing for medications
- Updates to My Health Record

Data and Systems - Future

- Clinical decision support recommends best practice medication treatment.
- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

Patient Empowerment

- Use of PREMs/PROMs for monitoring of Maria's experience of fatigue, energy levels and wellbeing.

Data and Systems - Immediate

- Recent diagnostic results promptly available .
- Medication Statement updated; follow-up scheduled.
- Changes to MedicationStatement and follow-up update CCMP.
- Updates to My Health Record

Data and Systems - Future

- Clinical decision support recommends medication review when Maria's fatigue is recorded in CCMP
- Data linkage to pharmacist's system & dispensing history for Maria
- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

Patient Empowerment

- Maria updates her Goals of care and accesses a current care summary

Data and Systems - Immediate

- Observations (foot risk, visual status) recorded
- Foot and eye screening data captured and shared promptly.
- Updates to My Health Record

Data and Systems - Future

- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

Patient Empowerment

- [Patient empowerment opportunity]

Data and Systems - Immediate

- Structured, multi-disciplinary care contributes to quality improvement datasets.
- Updates to My Health Record

Data and Systems - Future

- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

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Side Panel (Case Scenario & Care Team)

Care Scenario

Maria is a 58-year-old woman recently diagnosed with Type 2 Diabetes.

Maria
Person aged 58

Care Team Members

George
Maria's husband

Enzo
Maria's son

Dr Jones
General Practitioner

Amanda
Practice Nurse

Tim
Credentialled Diabetes Educator (CDE)

Kate
Dietitian

Josh
Exercise Physiologist

[TBC]
[Specialist/Other]

Cindy
Pharmacist

Carol
Optometrist

Jessica
Podiatrist

James
Psychologist

Care Team Updates Feedback

- Include **Maria's son or daughter** as a **support person**.
- Add **practice nurse** and **pharmacist** to the care team.
- **Remove endocrinologist** unless specifically warranted (e.g., in escalated cases).
- Include **care team members and support network participants at each stage** – show how the team evolves.

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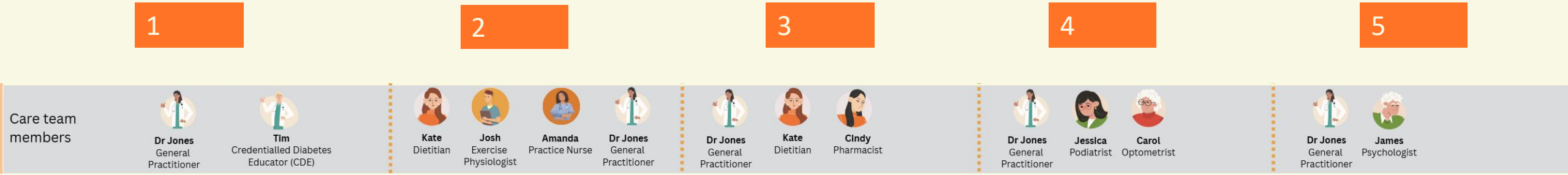
Care team members per stage

- Active team members for each stage
- Full care team shown on side panel



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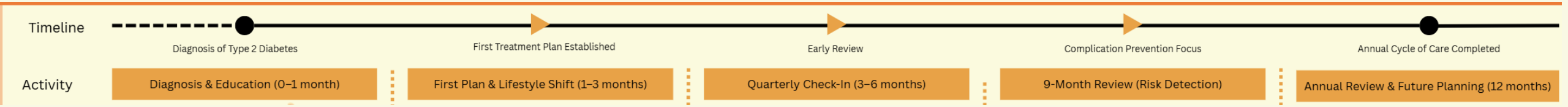
Stage & Activity > Timeframe, Stage, Activity

Previous



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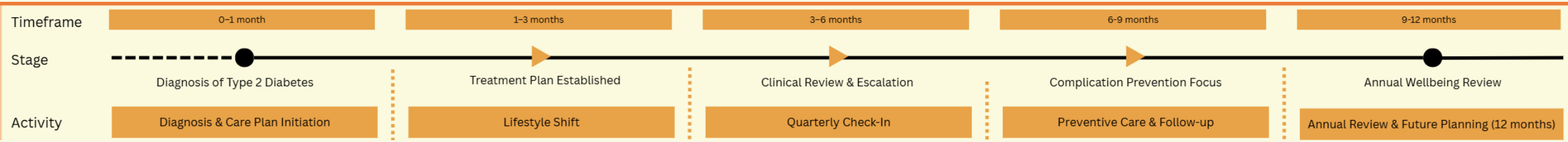

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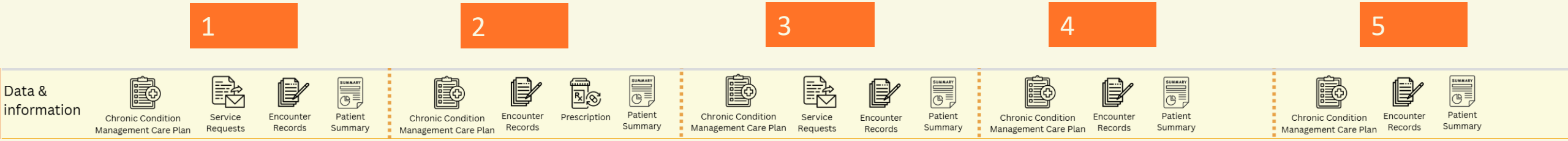
Data & information section

- Represents artefacts created, updated, accessed/viewed

- Service requests, e.g. referrals, diagnostic requests, procedures or intervention request etc
- Encounter record types, e.g. Consult note, Specialist/AH letters, clinical/progress note, etc



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Meeting 3 Discussion

- Data & information line – make the order of the artefacts the same (so on a glance we can see what's the same way each time)
- Care team members – order?
- Dr Jones refers Maria to – use active voice so it makes it clearer

General feedback

Workflow & Engagement

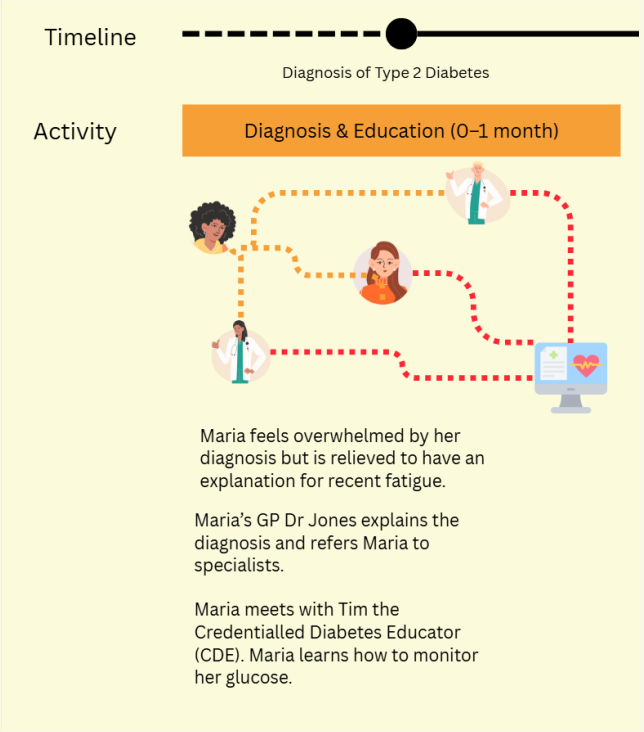
- **Risk factors** often become relevant from **Stage 2** – don't delay risk assessment until 9 months.
- **Education is ongoing**, not just at initiation. Reinforce learning and support throughout all stages.
- Include **care team members and support network participants at each stage** – show how the team evolves.
- Remove specific timing from descriptions – present **timeframes separately** for clarity.

System-Level Opportunities

- Highlight **reuse of existing data** to reduce duplication (e.g., leveraging other consult records).
- Allow for **patient contributions** (e.g., goal setting, care plan input and updates).
- Introduce **clinical decision support (CDS)** triggers and guideline-based alerts.
- Emphasise **patient empowerment** tools: action plans, portals, access to data for feedback/reassurance.
  - **Voice/dictation systems** that convert input into usable clinical data

CCM Timeline: Stage 1

Previous



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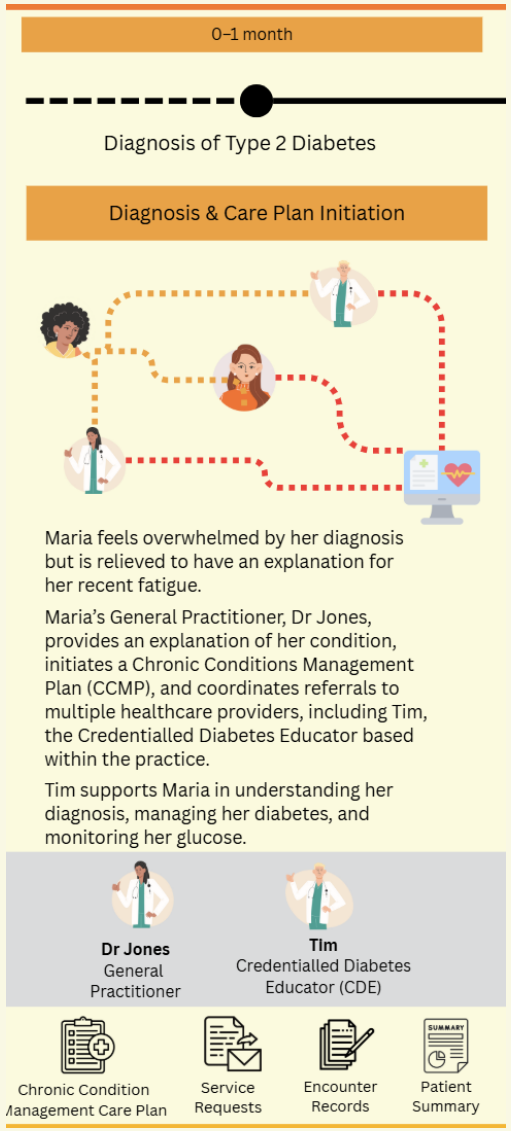

Activities

- The **meeting with Tim (diabetes educator)** is a **referral**, even if internal—explicitly call this out.
- Tim supports monitoring education, but also provides other advice regarding diabetes management
- Initiation of care plan starts here.

Clarifications

- **Specialist involvement** is rare but possible.
- Consider defining Maria's **personal support network** early, to integrate them into the care plan.

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CCM Timeline: Stage 1

Previous

Opportunities

Shared Care Visibility

All clinicians across care team can view and update Maria's CarePlan.

Data and Systems

Creation of Condition, CarePlan, and ServiceRequest resources; updates to My Health Record.

Updated

Opportunities

Patient Empowerment

- Maria accesses her Chronic Condition Management Plan (CCMP) to record her own Goals and nominate members of her personal support network, including her husband and son

Data and Systems - Immediate

- Creation of Chronic Condition Management Plan (CCMP) FHIR Questionnaire
- Service Requests sent to relevant healthcare providers
- Updates to My Health Record

Data and Systems - Future

- All members of Maria's care team can view and update Maria's CCMP
- CCMP links to relevant clinical guidelines and clinical decision support tools to assist with evidence-based care planning
- Prompts & recommendations for Service Requests, care pathways, service providers, etc. are displayed to CCMP users based on clinical preference or discipline
- Updates to patient summary

Comments

- Updates to patient summary – consider better wording so it is clearer
- HAIRY QN – can a consumer update their own CCM/PS – to correct, to add new, to update - how is this managed, what are the implications of this, provenance

CCM Timeline: Stage 2

Previous

Updated

Activities

- Clearly indicate a referral to a dietitian.
- New clinicians (e.g., exercise physiologist, allied health, pharmacist) may join – represent that they may be temporary or ongoing.
- Represent communication across the care team (e.g., case conferencing, shared notes).
- Highlight self-monitoring by the patient (e.g., weight tracking).

Technology & Integration

- Systems generates prescriptions
- Systems update shared care plans,
- Use of new technologies for patient for patient to track activities/progress,
  - e.g.Bluetooth device integration, smart fridge tracks food > tracking data goes to clinician
  - Remote monitoring tools for BP/T2DM
- Note: if devices are outside of standard use, Maria may need additional assistance or training.
- Emphasise empowerment: teach Maria how to use tools and interpret feedback.
- **Question of data responsibility – who owns or manages this data?**

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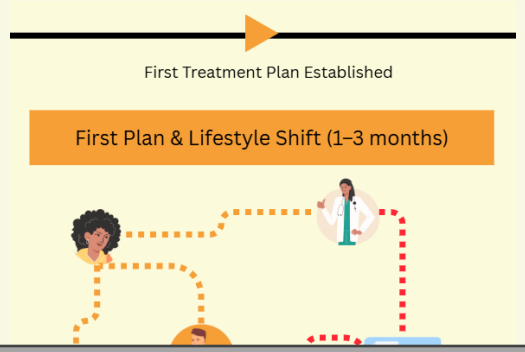
CCM Timeline: Stage 2

Notes - Dr Jones – doing more than prescriptions, reviewing overall care – making sure she's seeing the right ppl at the right time, overseeing/supervise care initiating and managing meds can be complex - CDS tools here to help

Previous



Practice nurse – more than just organizing case conf
Incorporate - Reviewing plan, administering influenza vaccine (at risk)

Can remove – begins to walk daily to shorten

Updated

Case conference

Does this include Maria?

- If clinical/care team case conference only, what artefacts are created/documented?
  - Clinical/progress notes in multiple clinical information systems?
  - Sharing/shared notes?
  - Updates to CCMP
  - Other documentation?
  - Generation of new service requests (e.g. referrals, investigations)?
  - Other activities/outcomes from case conference

Ideally has maria present with care team

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CCM Timeline: Stage 2

Previous

Patient Empowerment

Maria tracks glucose and activity in an app and accesses a care summary.

Data and Systems

ServiceRequest → Physiotherapist; Goal and Procedure records updated.

Updated

Patient Empowerment

- Maria tracks her weight and activity in an app, Josh the Exercise Physiologist is able to provide support & encouragement to Maria via the app.

Data and Systems - Immediate

- ServiceRequest received by Dietitian & Exercise Physiologist; Goals, Interventions and Procedures updated.
- Changes to Goals, Interventions and Procedures updates CCMP.
- ePrescribing for medications
- Updates to My Health Record

Data and Systems - Future

- Clinical decision support recommends best practice medication treatment.
- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

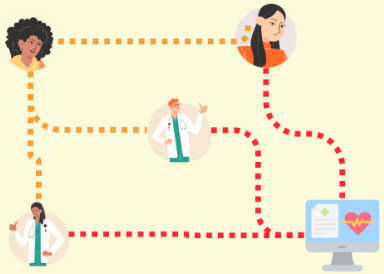
Should app data be included in Data and systems - Make data accessible to care team?

CCM Timeline: Stage 3

Previous

Early Review

Quarterly Check-In (3–6 months)



Maria reports fatigue and some confusion around medications.

GP refers Maria to an endocrinologist for further investigation.

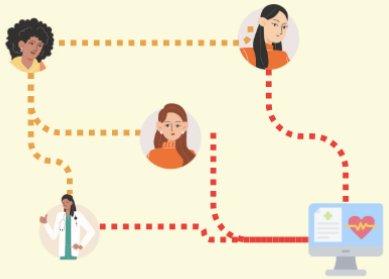
Maria's pharmacist also provides a Home Medicines Review.

Updated

3–6 months

Clinical Review & Escalation

Quarterly Check-In



Maria reports fatigue and some confusion around medications.

Dr Jones reviews Maria's lab results, including FBC, HbA1C, lipids, LFTs, & urinary albumin, and liaises with Kate the Dietitian to review Maria's current dietary intake

Kate works with Maria to adjust her current nutritional plan

Maria's pharmacist also provides a Home Medicines Review.

Monitoring

- Focus escalation logic on **cardio/renal causes** of fatigue rather than defaulting to endocrinology.
  - If symptoms remain unexplained, escalate to appropriate specialty.
- Review **HbA1c**, **lipids**, **LFTs**, **urinary albumin** – integrate broader biochemistry based on comorbidities.

Clinical Decision Support

- Use **"Clinical Decision Support (CDS)"** instead of "alert-driven care."
- CDS can:
  - Recommend **medication review** when symptoms (e.g., fatigue) are flagged.
  - Prompt consideration of other causes (e.g., **anaemia** → review full blood count).

Data Linkages

- Enable links to:
  - **Pharmacy records**
  - **My Health Record (MyHR)**
  - **PREMs/PROMS** (e.g., for fatigue tracking)
  - **Assessment tools** like **K10** for psychological distress

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effects related to her medications. Dr Jones adjusts her medications (reduce dose/change formulation).

Dr Jones reviews Maria's lab results etc...

Stage 4 -
Maria's home BGL readings have increased which is also reflected in her increased HbA1c.

Minor neuropathy etc...

Maria reports fatigue and some confusion around medications.

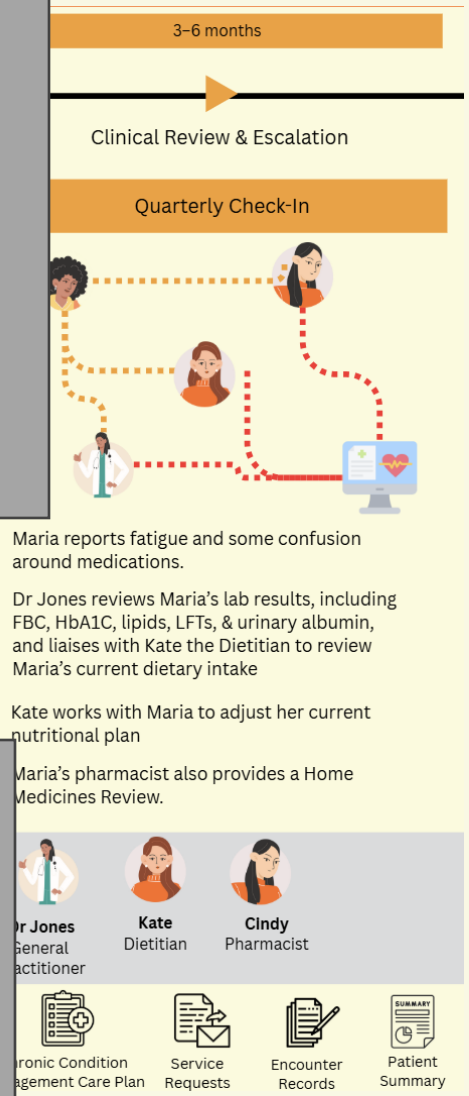
GP refers Maria to an endocrinologist for further investigation.

Confusion vs has qns about meds

Swap fatigue for Diarrhoea
Patient has noted D and ceases metformin
- Dr assesses situation, reviews meds, recommends reduce metformin.
- – dietitian reviews her nutritional plan
- Keep pharmacist review

Stage 3

ed



GP – talks to Maria, investigates possible causes of fatigue and confusion (more comprehensive than just reviewing labs)

Question for CFG

High-light reuse of data more specifically through GP reviewing recent lab results available from other CIS, e.g. investigations ordered by other provider or recent visit to other clinic/hospital?

Current wording

Dr Jones reviews Maria's lab results, including FBC, HbA1C, lipids, LFTs, & urinary albumin, and liaises with Kate the Dietitian to review Maria's current dietary intake

Data and Systems - Immediate

- Recent diagnostic results promptly available .

CCM Timeline: Stage 3

Previous

Alert-Driven Care

Trigger-based prompts recommend medication review after fatigue flagged.

Data and Systems

ReferralRequest to Endocrinologist; MedicationStatement and CarePlan updated.

Updated

Patient Empowerment

- Use of PREMs/PROMs for monitoring of Maria's experience of fatigue, energy levels and wellbeing.

Data and Systems - Immediate

- Recent diagnostic results promptly available .
- Medication Statement updated; follow-up scheduled.
- Changes to MedicationStatement and follow-up update CCMP.
- Updates to My Health Record

Data and Systems - Future

- Clinical decision support recommends medication review when Maria's fatigue is recorded in CCMP
- Data linkage to pharmacist's system & dispensing history for Maria
- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

Feedback

- Capture Maria's **fatigue** and **sense of wellbeing** using:
  - Structured questionnaires (e.g., PROMs)

Remove PREM – doesn't measure fatigue/energy

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CCM Timeline: Stage 4

Diarrhoea has resolved, HbA1c has increased, switch to SR and make sure she is taking with food, review lifestyle before further pharmacological interventions

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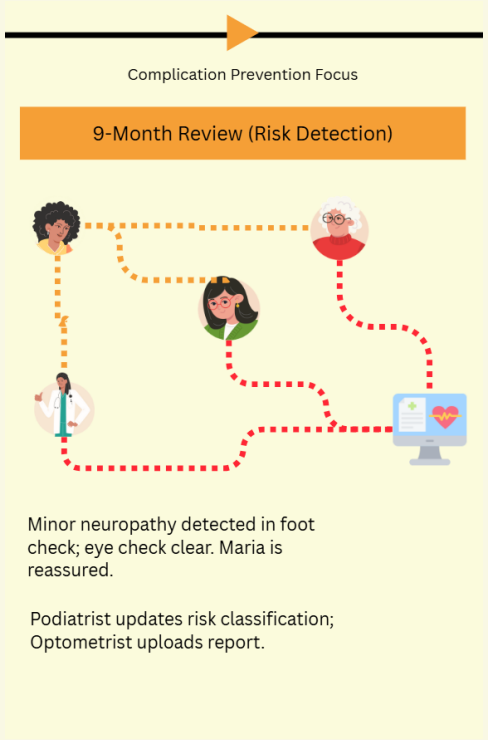

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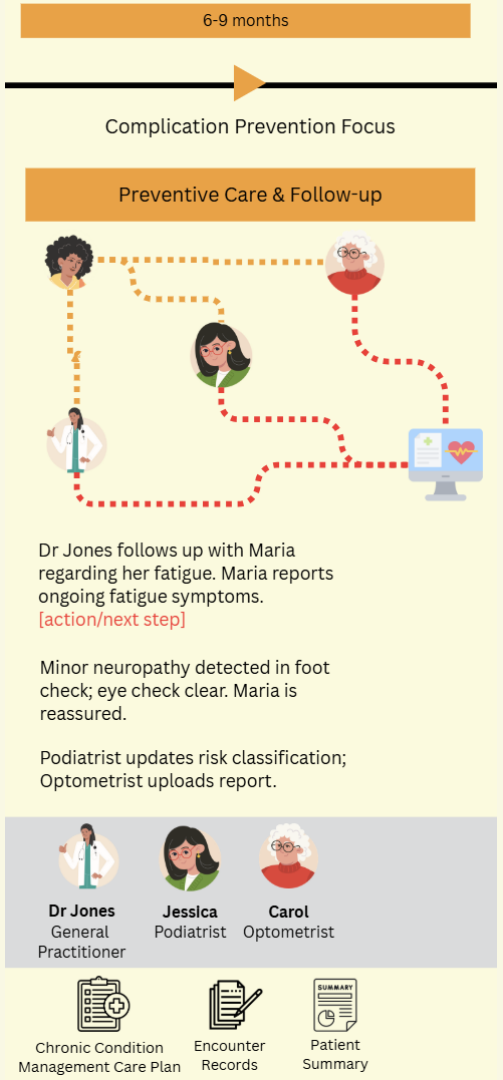

General feedback

- Include **review by a health professional** – not just device-based monitoring.
- Consider using **Aus CVD Risk Calculator**.
- Revisit: *Did we follow up on Maria's reported fatigue* during the earlier review?

Question for CFG

Next step to action Maria's ongoing fatigue.

- Order further investigations?
- Refer to specialist, renal or cardio?
- Other action(s)?

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CCM Timeline: Stage 4

Previous

Real-Time Health Monitoring

Foot and eye screening data captured and shared promptly.

Data and Systems

Observation (foot risk, visual status), follow-up scheduled in CarePlan.

Updated

Patient Empowerment

- Maria updates her Goals of care and accesses a current care summary

Data and Systems - Immediate

- Observations (foot risk, visual status) recorded
- Foot and eye screening data captured and shared promptly.
- Updates to My Health Record

Data and Systems - Future

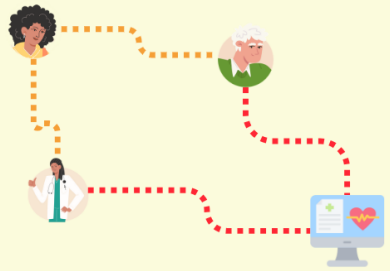
- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

CCM Timeline: Stage 5

Previous

Annual Cycle of Care Completed

Annual Review & Future Planning (12 months)



Maria reflects on her progress. Mild emotional distress discussed.

GP reviews the full cycle; refers to psychologist; renews CarePlan.

System-Wide Learning

Structured, multi-disciplinary care contributes to quality improvement datasets.

Data and Systems

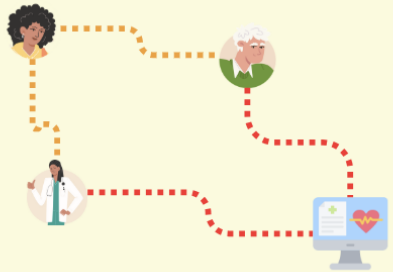
Bundle of Observation results (HbA1c, lipids, kidney), updated CarePlan.

Updated

9-12 months

Annual Wellbeing Review

Annual Review & Future Planning (12 months)



Maria reflects on her progress. Mild emotional distress discussed.

Dr Jones reviews the full cycle; refers to psychologist; renews CarePlan.

Dr Jones General Practitioner

James Psychologist

Chronic Condition Management Care Plan

Encounter Records

Patient Summary

When mild – GP likely to manage themselves, and if required, then will refer

Son brings Maria (link them in)

Questions for CFG

- Add in additional care team case conference as part of annual review?

Case conferences more for where things are unresolved/a problem
A trigger could be PROMs (6month and 12 month) identifying wellbeing change

CCM Timeline: Stage 5

Previous

System-Wide Learning

Structured, multi-disciplinary care contributes to quality improvement datasets.

Data and Systems

Bundle of Observation results (HbA1c, lipids, kidney), updated CarePlan.

Updated

Patient Empowerment

- [Patient empowerment opportunity]

Data and Systems - Immediate

- Structured, multi-disciplinary care contributes to quality improvement datasets.
- Updates to My Health Record

Data and Systems - Future

- Changes to CCMP notifies care team members, tailored by clinical preference or discipline.
- Update to patient summary

Questions for CFG

- Patient Empowerment opportunity to highlight at 12-month mark?

PROMS information reviewed and used and actioned

an opportunity could be for the PROMs to be used with a scoring system or Clinical Decision Support (which could be as simple as showing patient the trend so they can initiate contact with their care team)

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Broader questions or issues for external discussion "Hairy questions"

- Data responsibility – **who owns or manages the data** recorded through wearable/home devices used for health purposes (i.e. IoT food diary/smart fridge example)?

- **Need to define - who is accountable for acting on test results in the following scenario?**
  - i.e. the clinician who orders a test is currently considered responsible for managing the result however improved data accessibility (e.g. via MyHR) means the patient may be notified of critical results even before their healthcare provider sees them.

Next Meetings

Meeting 4

11am – 1pm AEST

Tue 3rd June

Upcoming Events 2025

May 2025

- **28th** – Sparked Partners Symposium

July 2025

- **29th & 30th in Sydney** – CDG and TDG face to face meeting

Sparked HL7 FHIR For additional info regarding upcoming Sparked events, please check out the https://sparked.csiro.au/ website

Thank you!!