



# Diabetes Models of Care

© Country Health SA Diabetes Service  
NADC - BPDC 2017

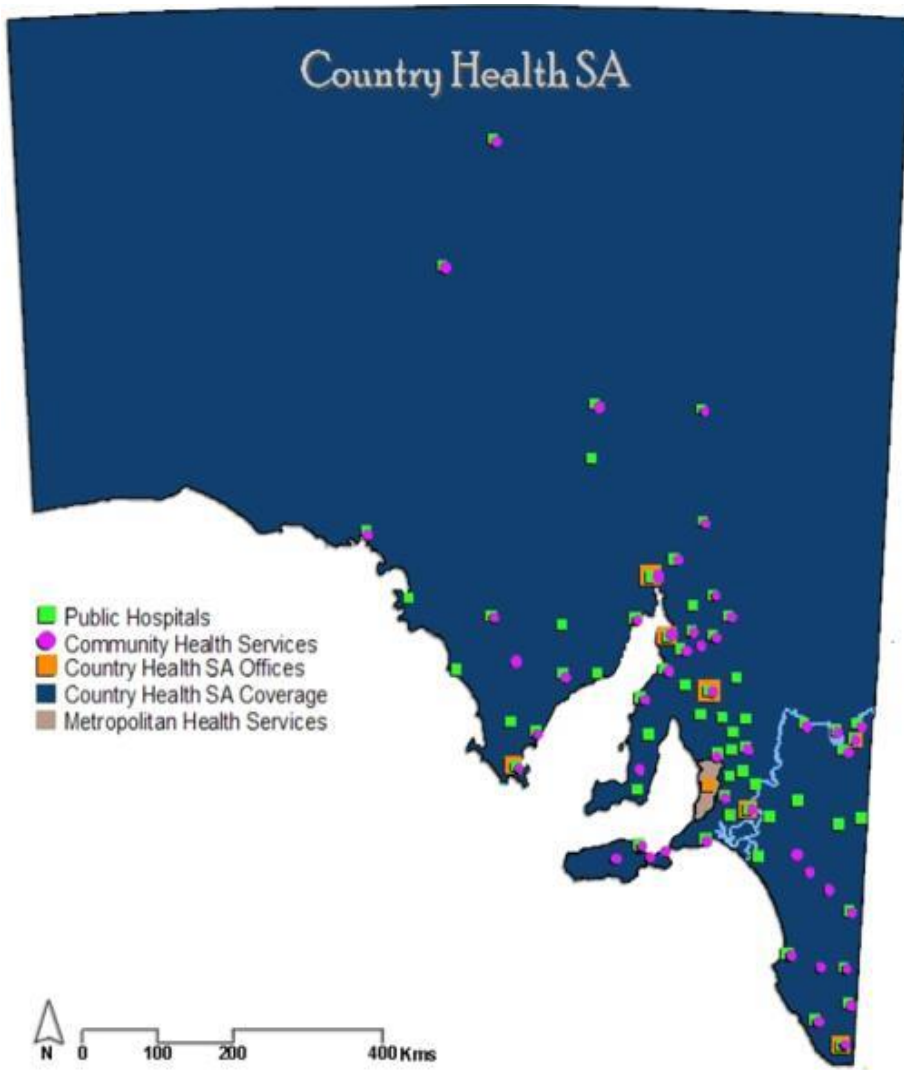


Government  
of South Australia

---

SA Health

# Country Health SA



- > Single health network
- > 1400 acute beds
- > 600 aged care beds
- > 64 hospitals
- > CDE/DE 33 (20 FTE)
- > Allied health workforce
- > No employed Endo
- > GP workforce
- > Visiting private specialists

# CHSA LHN Inpatient Diabetes Management and Model of Care -- V18

KEY:  
 † - in development  
 ‡ - requires development  
 ADS - Australian Diabetes Society

GOAL: Optimise Intervention Opportunities

**Pre-admission consideration**  
 Can this service or care be provided in the ambulatory setting via Rapid Access Service?  
 >diabetes specialist nurse  
 >podiatry service  
 >endocrinology specialist  
 >BetterCare in the Community  
 >RIBS package

**Emergency Department**  
 SAAS (non-transported call-outs)  
 OPD

**Planned admission**  
 inc. Pre anaesthetics

**Admitting Doctor**  
 General practice/OPD

Diabetes inpatient Scenario	Identifying and treating new hyperglycaemia in hospital	Admitted with diabetes as primary diagnosis eg. DKA, HHS, hypoglycaemia, hyperglycaemia (HbA1c >8.5%, diabetic foot ulcer)	Diabetes as a secondary condition to admission diagnosis eg. infection, surgery, MI, pregnancy etc.
<b>PROCEDURES</b>	Screen at risk adults for hyperglycaemia as per NHMRC guidelines 1. Fasting or random plasma glucose 2. Random capillary blood glucose measurements if on steroid therapy, MI, CVA, renal etc. If blood glucose elevated, commence therapy as per relevant protocol	1. Assess for transfer or retrieval to regional or metro hospital if needed. Consultation with endocrinology service or endocrinologist as per protocols 2. Implement appropriate CHSA protocols 3. Admission HbA1c or record recent (in last months) 4. Opportunistic complication screening (e.g. microalbuminuria)	1. Assess glycaemic status - Admission HbA1c or record recent (in last months) - Implement appropriate CHSA protocols 2. Type 2 - if BGL is elevated or there is anticipated hyperglycaemia, commence relevant protocol - Type 1 - optimise insulin therapy or commence insulin infusion 3. Opportunistic complications screening (e.g. microalbuminuria)
<b>REFERRAL CONSIDERATIONS</b>	referral to diabetes service as per clinical priority tool. (phone consult an option) >pharmacist >diabetes specialist nurse >diabetic review >podiatrist BetterCare in the Community and external referrals as needed Home based PoC monitoring (HBGM) and/or (POCCS)		
<b>CLINICAL MANAGEMENT AIMS</b>	>Aim for target BGLs (as per guidelines) >BG management as per protocols >Minimise risk of hypoglycaemia, and treat as per protocol >Support safe self-management of insulin administration and blood glucose monitoring. Insulin pump therapy can continue only if it can be safely performed and monitored >Ensure adequate supervision and documentation of self-management >Foot risk assessment whilst person is in hospital (can be provided by trained non-podiatrist)		
<b>DISCHARGE PLANNING &amp; OUTPATIENT REFERRAL</b>	GP for further screening if needed CHSA fact sheets >new diagnosis >long term care (cycle of care) Referral for diabetes service as an outpatient	Include diabetes in discharge planning considerations (review need for rapid follow up) Provide patient with relevant discharge information. CHSA fact sheets >new diagnosis >long term care (cycle of care) >hypoglycaemia action plan >hyperglycaemia (sick day) action plan >driving & diabetes >insulin therapy action plan >footcare action plan	

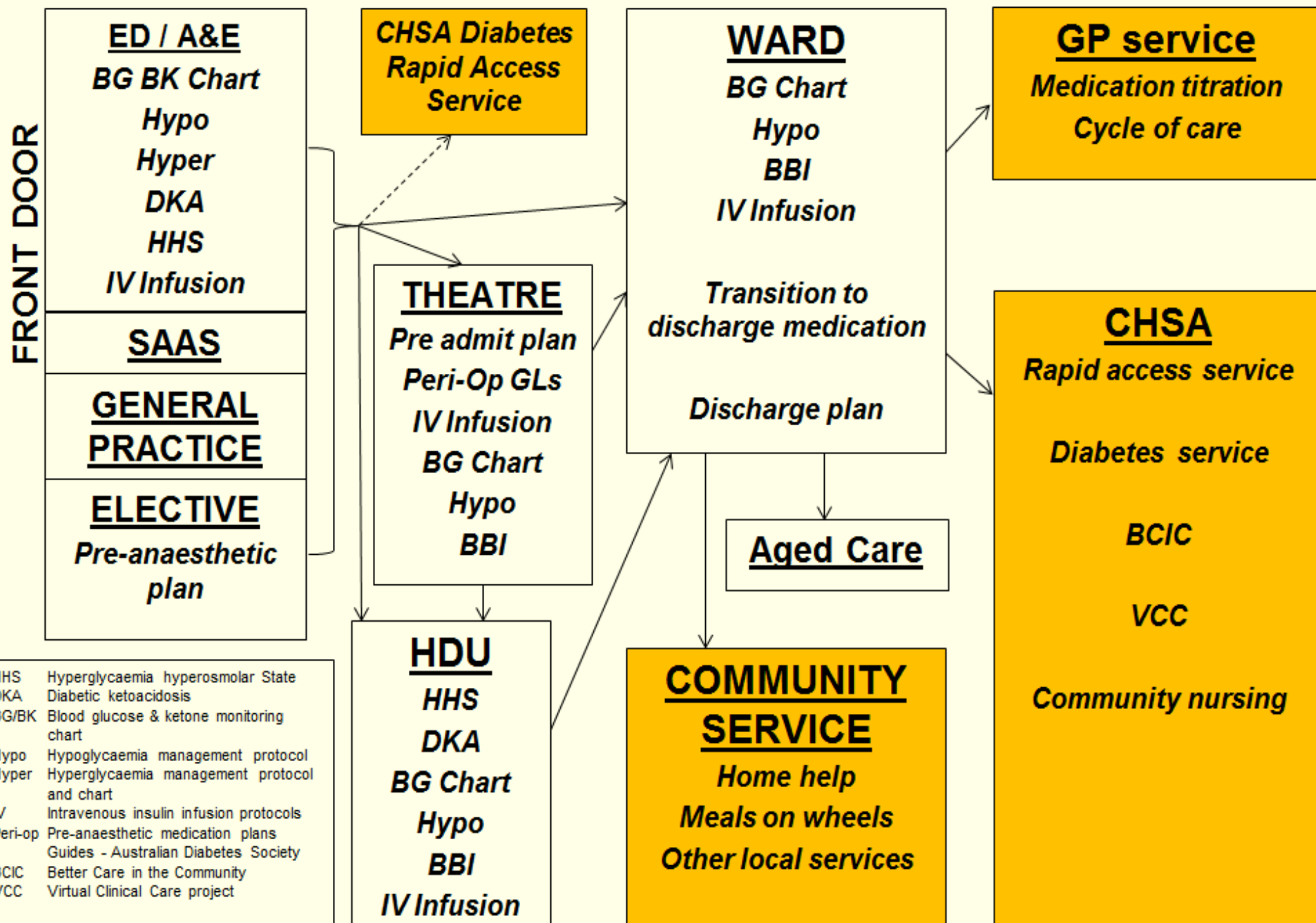
**CHSA LHN PROTOCOLS**  
 CHSA Diabetes clinical priority tool  
 NHMRC screening guidelines  
 Blood glucose/blood ketones monitoring chart  
 Hypoglycaemia management protocol  
 Hyperglycaemia Protocol and Insulin Dosing Chart  
 Diabetic ketoacidosis protocol  
 Hyperosmolar hyperglycaemic state protocol  
 Insulin infusion protocol  
 Peri-operative management protocol (ADS)  
 CSII Protocol and record chart  
 Diabetic foot ulcer protocol  
 Foot screening protocol

See Community Model of Care

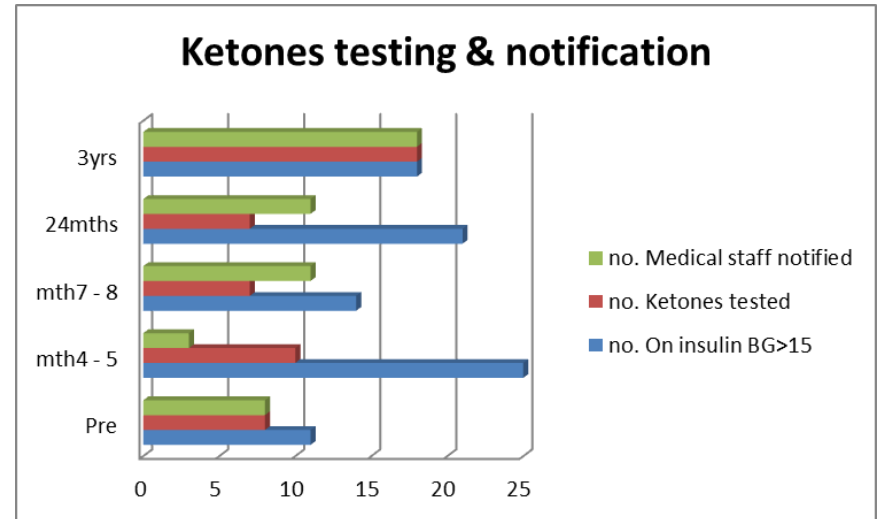
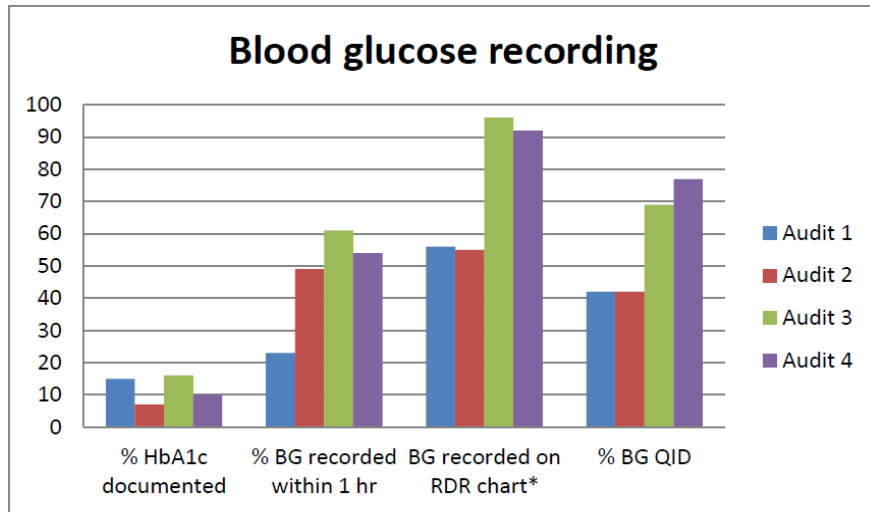
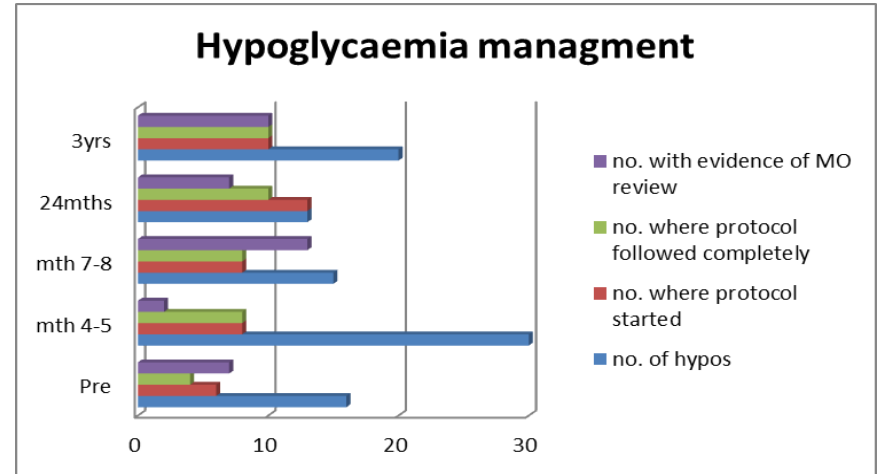
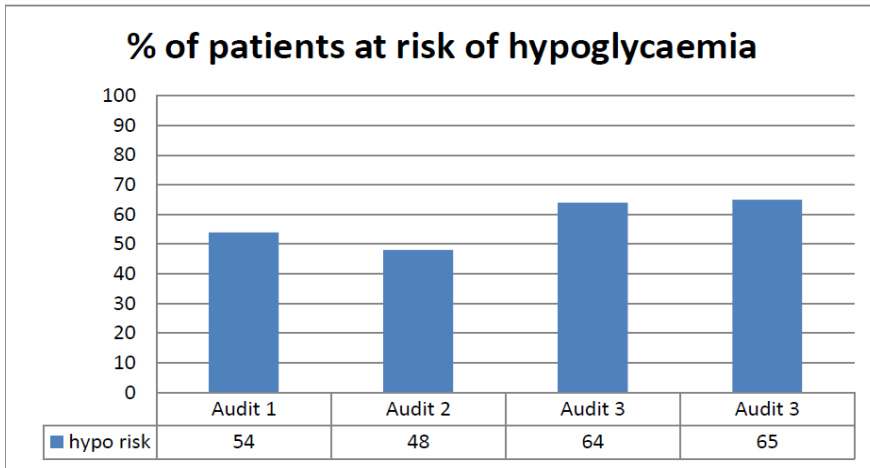
CHSA Diabetes Service Plan 2014 - 2018 amendment, p19 - 23

- Utilise telephone/video conferencing for inter-hospital access to specialist nursing or allied health
- Utilise telephone/video conferencing for inter-hospital access to specialist medical advice
- Admission summary to be sent to primary care general practitioner as soon as possible

# Inpatient Model of Care Patient Journey



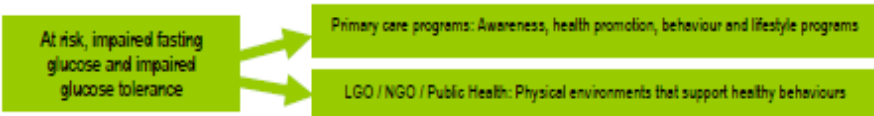
# Inpatient audit data



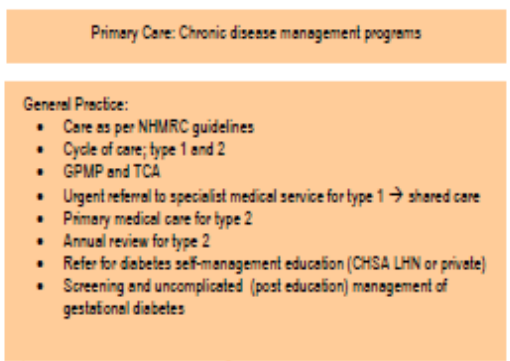
# Community Diabetes Model of Care\_ DRAFT V11

KEY:	
NHMRC	National Health & Medical Research Council
GPMP	General Practitioner Management Plan
TCA	Team Care Arrangement
DSME	Diabetes Self-Management Education
CHSA LHN	Country Health SA Local Health Network
LGO	Local Government Organisation

AIMS: Optimise clinical targets, minimise medical emergencies, engage and support self-management

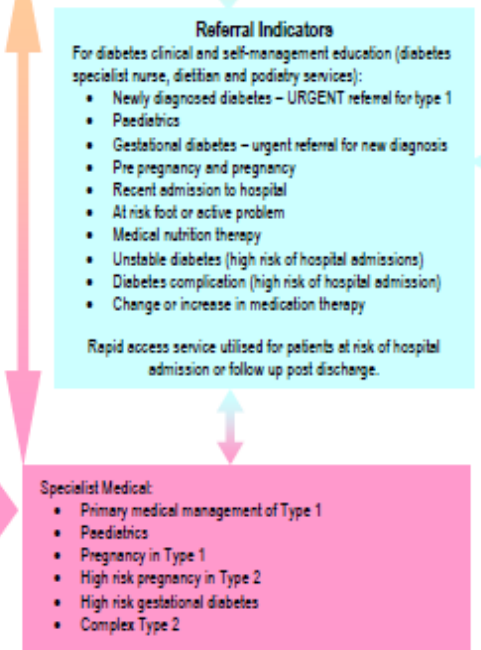


## DIAGNOSIS & ONGOING CARE



- Integration of services relevant to the local context
- Aboriginal Community Controlled Health Organisations
  - Dept of Education and Child Services
  - Non-government organisations
  - Local government
  - Other community service providers

## COMPLEX CARE



## CHSA LHN diabetes clinical and self-management education service

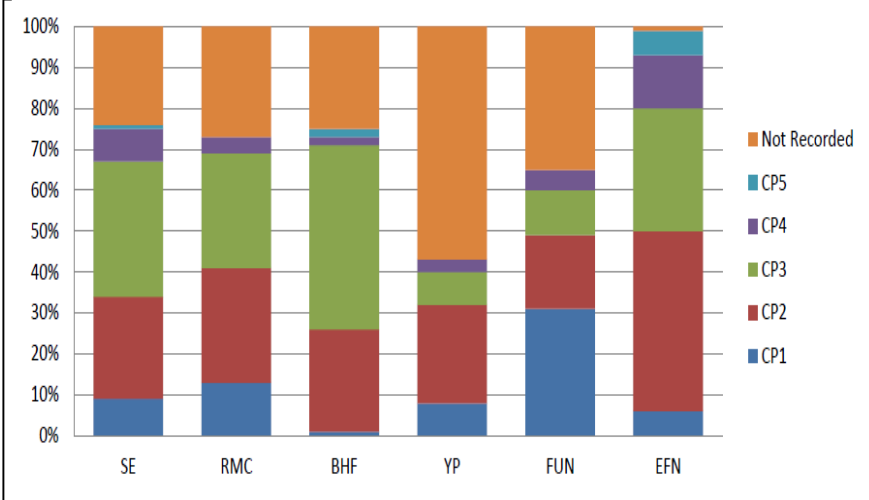
Type 1	Type 2	Gestational
<p><b>Diabetes specialist nurse:</b></p> <p>Triage as per CHSA LHN priority tool (Appendix)</p> <p>DSME provided as per education pathway (Appendix)</p> <p>Action plans based on individual risk profile</p> <p><u>Review cycle</u></p> <p>Annual/bi-annual review based on individual risk</p> <p>Shared care with specialist medical and primary care services</p>	<p><b>Diabetes specialist nurse:</b></p> <p>Triage as per CHSA LHN priority tool (Appendix)</p> <p>DSME provided as per education pathway (Appendix)</p> <p>Action plans based on individual risk profile</p> <p><u>Review cycle</u></p> <p>Review based on Referral Indicators</p>	<p><b>Diabetes specialist nurse:</b></p> <p>Triage as per CHSA LHN priority tool (Appendix)</p> <p>DSME provided as per education pathway (Appendix)</p> <p><u>Review cycle</u></p> <p>As per SA Health Perinatal guidelines</p> <p>Shared care with midwife/obstetric services/GP</p>
<p><b>Dietetics:</b></p> <p>Newly diagnosed</p> <p>Basal bolus insulin and pump therapy</p> <p>Advanced carb counting</p> <p>Pregnancy planning</p> <p>Paediatrics</p> <p>Other nutritional complexity as per clinical priority tool (Appendix)</p> <p>Annual/bi-annual review</p>	<p><b>Dietetics:</b></p> <p>Review at commencement of basal bolus insulin / pre-mix</p> <p>Review on exacerbation of complication (eg renal)</p> <p>Advanced carb counting</p> <p>Pregnancy planning</p> <p>Paediatrics</p> <p>Other nutritional complexity as per clinical priority tool (Appendix – list of potential complexities?)</p>	<p><b>Dietetics:</b></p> <p>Initial &amp; review during pregnancy</p> <p>As part of multidisciplinary team</p>
<p><b>Podiatry:</b></p> <p>Review of at risk feet as per CHSA LHN Podiatry assessment tool</p> <p>Foot care action plans for low risk</p> <p>Foot protection plans for at risk</p> <p>Assess and treat active foot pathology</p> <p>Interdisciplinary neurovascular screening – training and support</p> <p>Other as per CHSA LHN priority tool</p>		
<p><b>Multidisciplinary services:</b></p> <p>Refer as needed for clinical and cultural needs to appropriate allied health professionals e.g. psychology, Aboriginal health and chronic disease support services</p>		

STANDARDISED CHSA EDUCATION RESOURCES & CLINICAL PATHWAYS

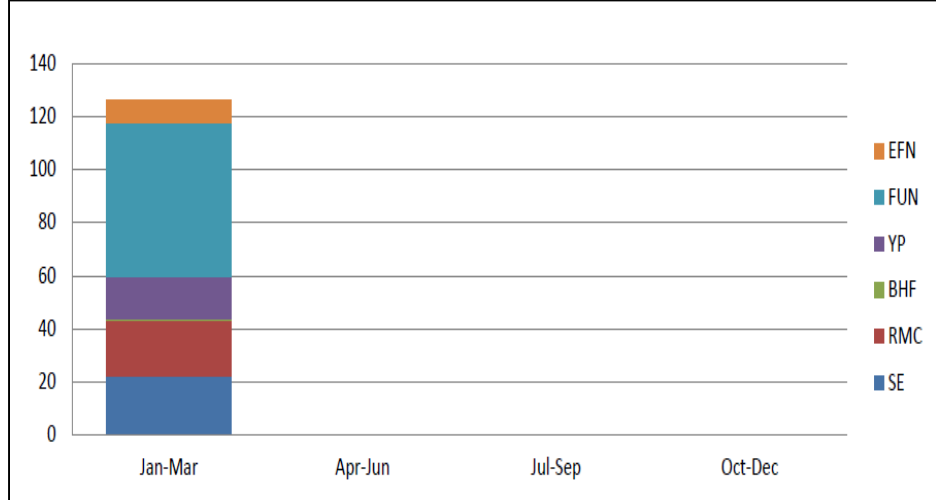
**COMMUNICATION SYSTEMS:** Telephone / video conferencing, secure email, clinical decision support mechanisms

# Outpatient/community audit data

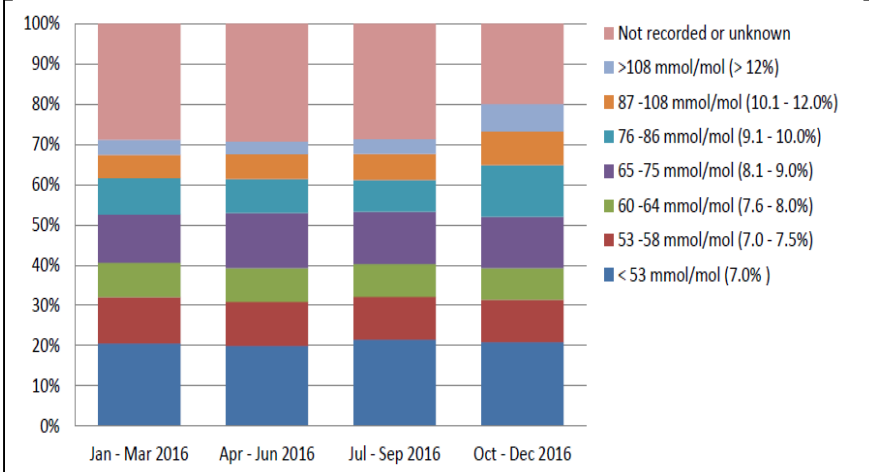
% of Clinical Priorities Recorded by Region



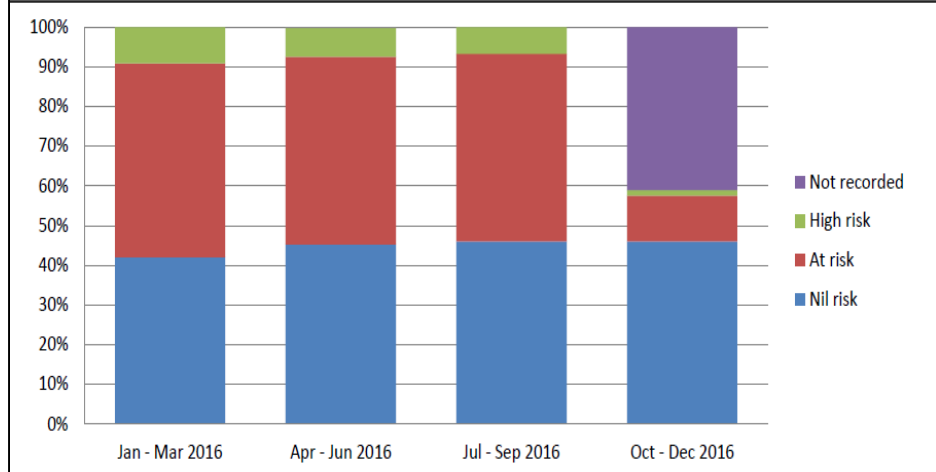
Number of Hospital Admissions Avoided



% Where HbA1c was provided and recorded



% Distribution of hypo risk



# What are our challenges/concerns

- > Lack of a SA Health implementation plan for the National Diabetes Strategy.
- > Workforce - Diabetes specialist nurse positions under threat – interpretation of chronic disease model in community health focuses on generalist HCPs.
- > Lack of specialist endocrinology specific to CHSA. Lack of systematic approach to stratifying clinical support for contracted GPs, eg partnerships with metropolitan health units.
- > Poor support for clinical VC models – eg expectation of using boardroom/meeting room as a clinical workplace.



# The central team

Jane Giles	Advanced Nurse Consultant – Diabetes, CHSA
Collette Hooper	Nurse Practitioner – Diabetes, CHSA
Barbara Cummins	Project Administration Officer (0.6FTE)

## Country Health SA Diabetes Service

**Go to** [www.chsa-diabetes.org.au](http://www.chsa-diabetes.org.au)

**Email** [chsa-diabetes@health.sa.gov.au](mailto:chsa-diabetes@health.sa.gov.au)



# Government of South Australia

---

SA Health