



Swedish National Diabetes Register

**the IQECAD Annual Meeting
April 24th**

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Nothing to declare

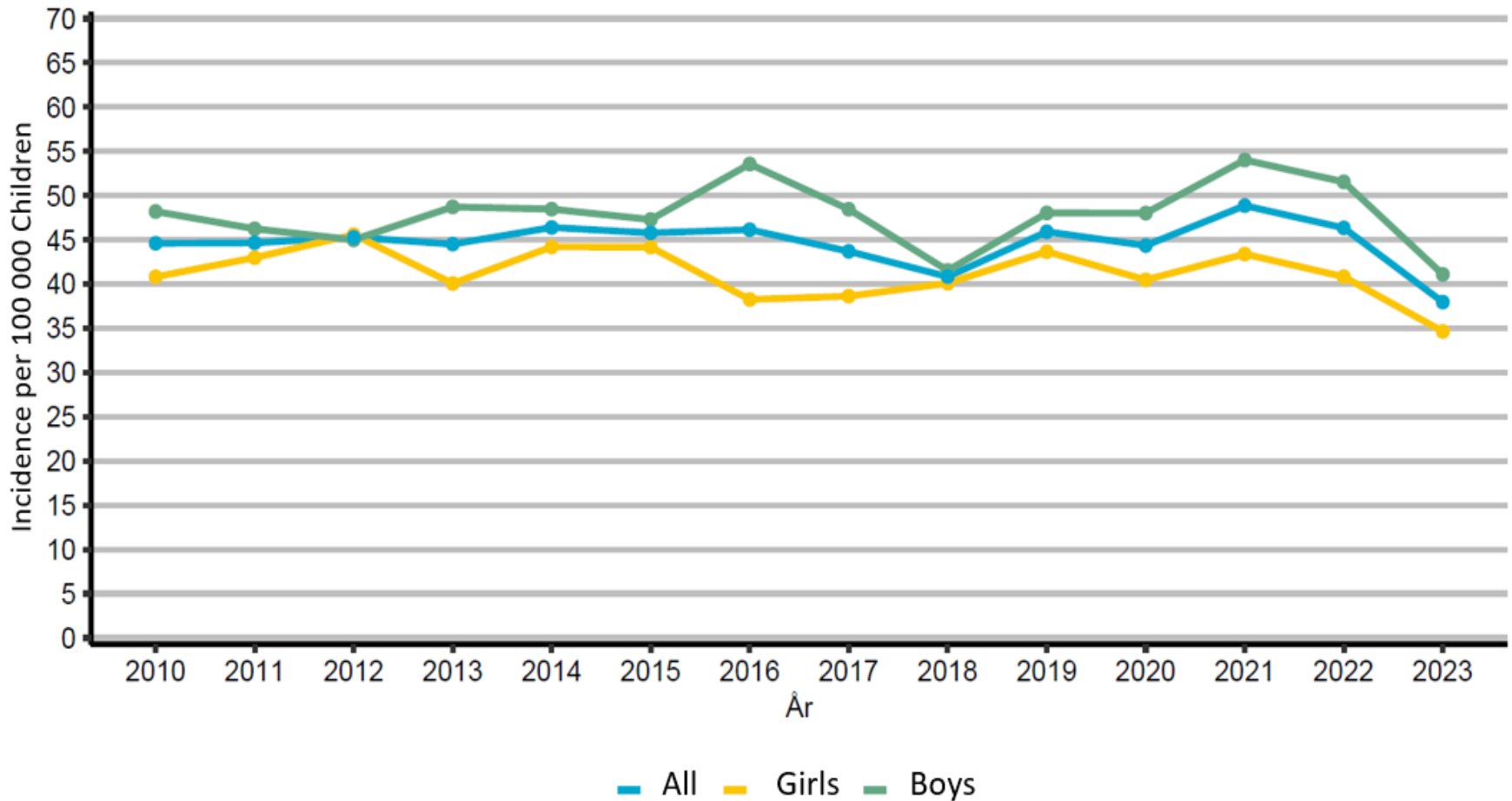


NDR  **NATIONELLA
DIABETESREGISTRET**

IQECAD 2025 Karin Åkesson

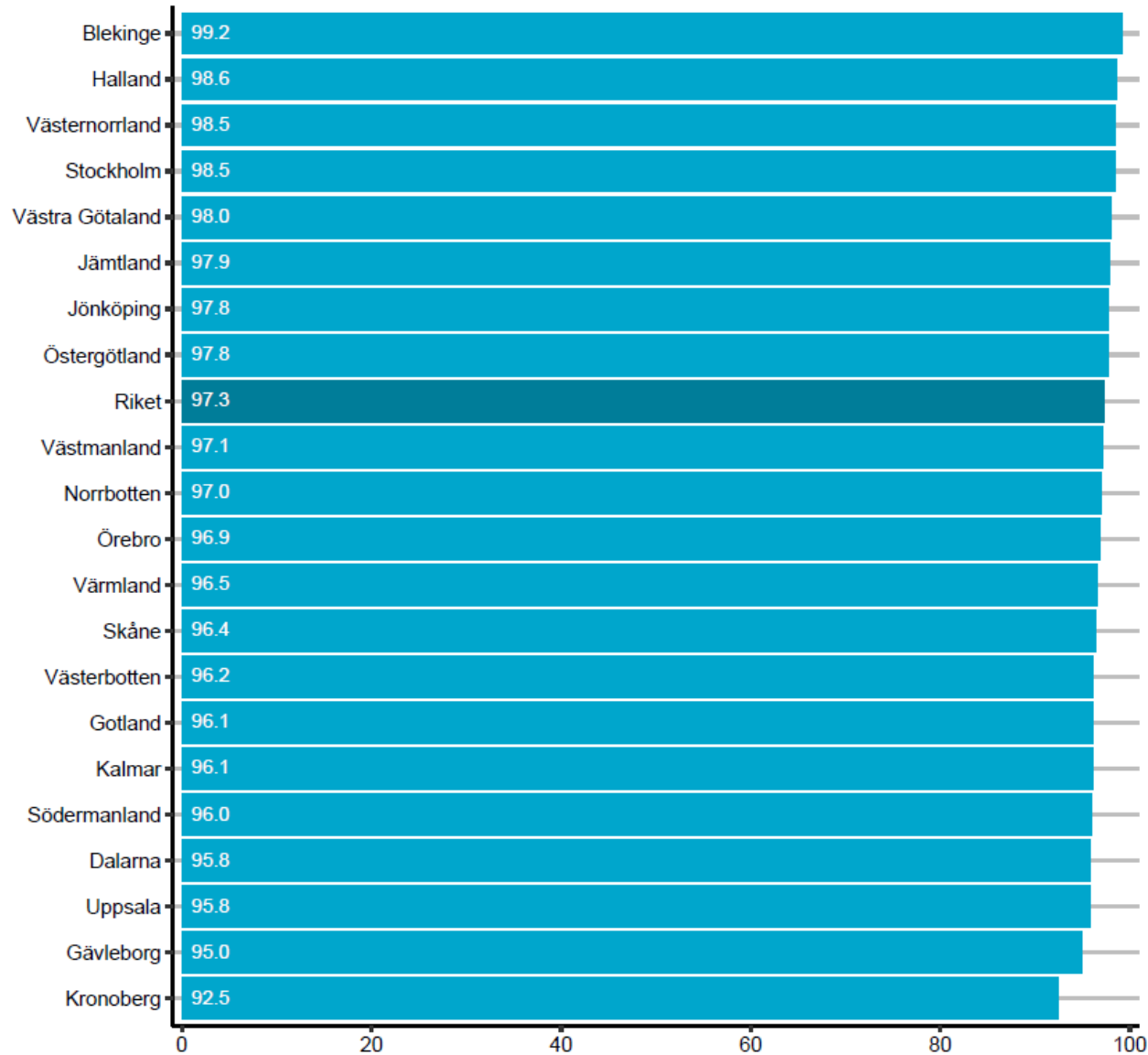
Swedish National Diabetes Register

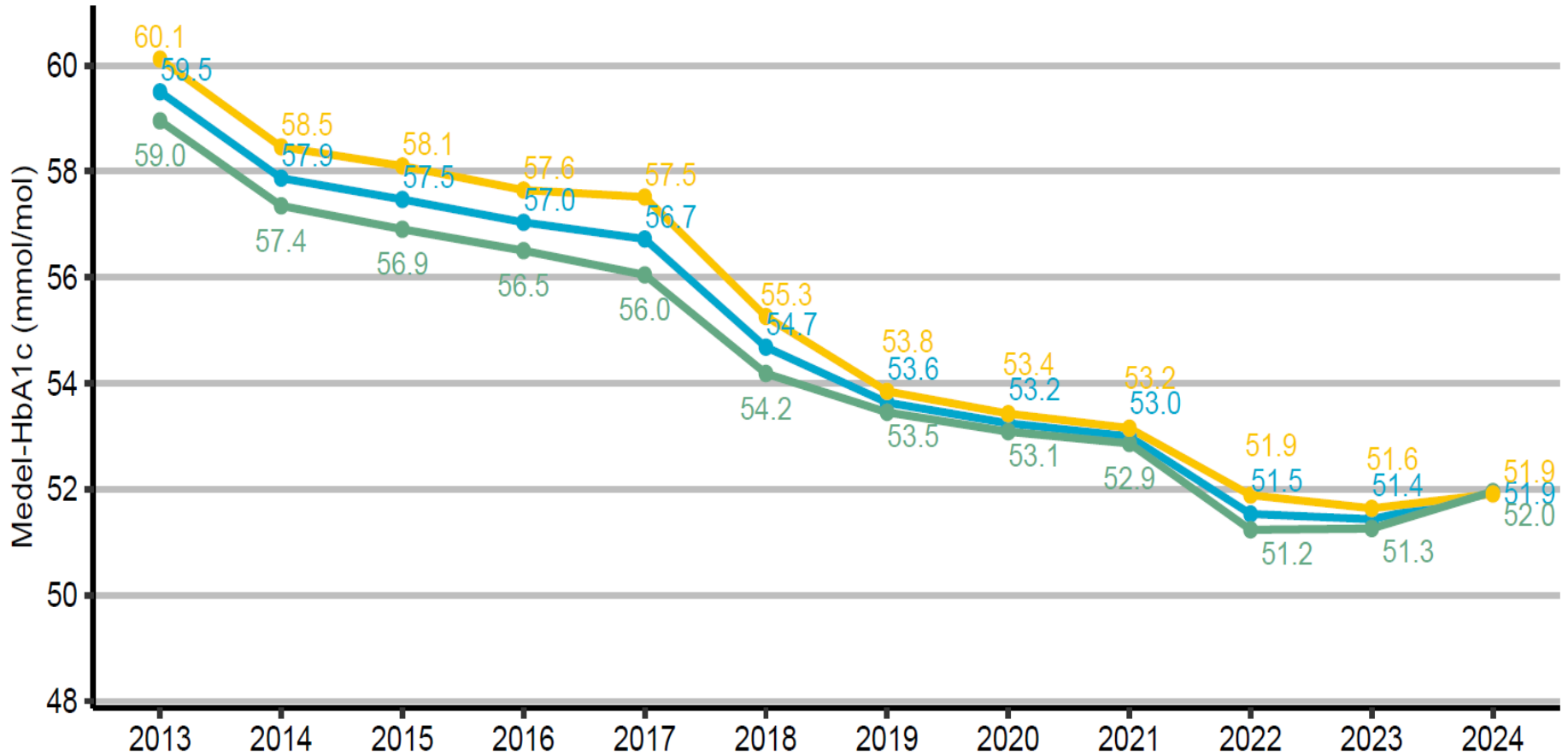
- Incidence of type 1 diabetes children below of 18 years of age.
- Second highest in the world.
- Almost everyone diagnosed with diabetes is included in the register.
- All 42 pediatric clinics that treat children with diabetes, report data.



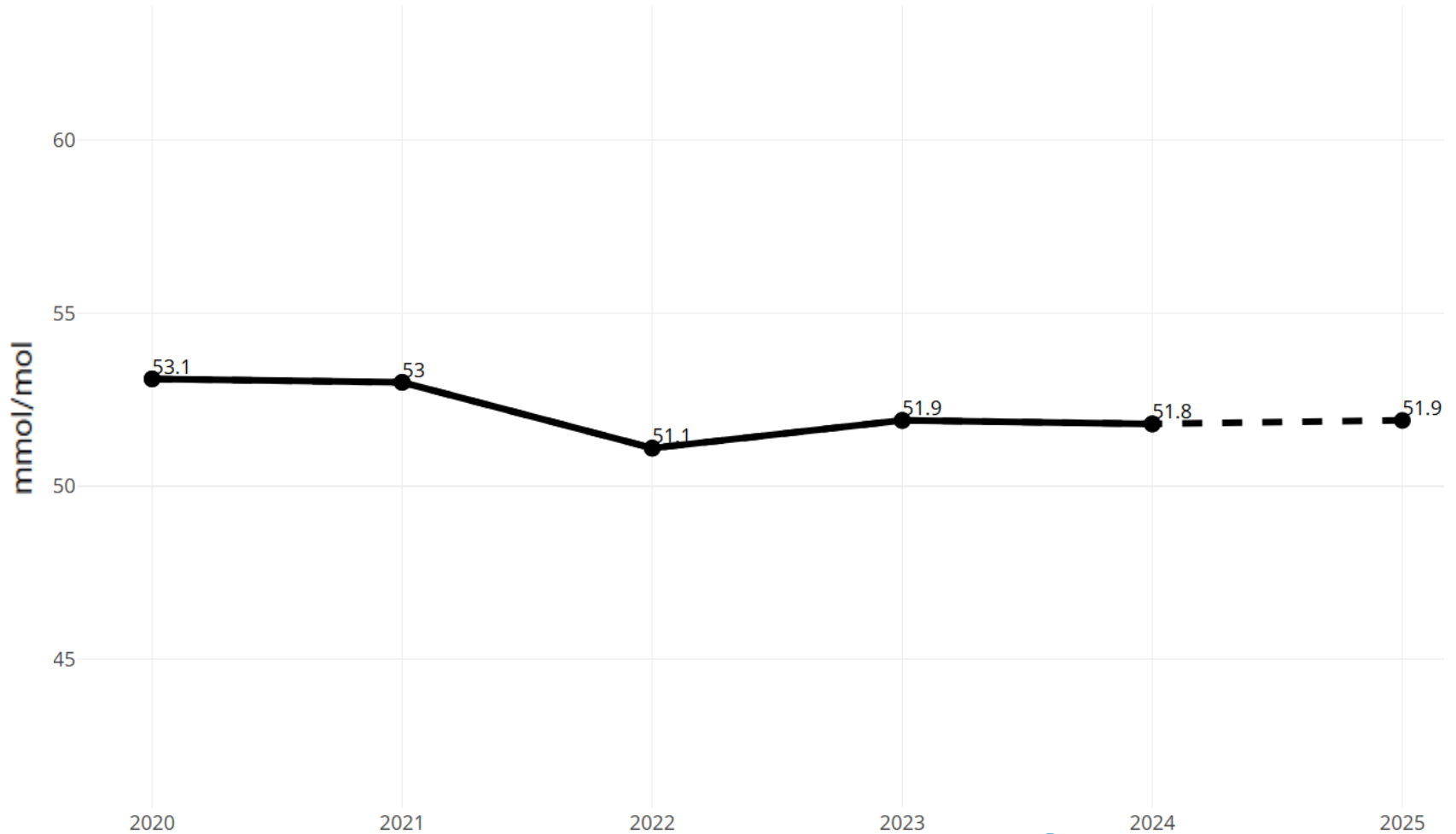
Diagnosår	Kön	0-4 år		5-9 år		10-17 år		0-17 år	
		Antal	Incidens*	Antal	Incidens*	Antal	Incidens*	Antal	Incidens*
2020	Alla	167	28,1	513	52,7	291	46,9	971	44,4
	Pojkar	99	32,4	289	57,6	153	47,9	541	48,0
	Flickor	68	23,5	224	47,4	138	45,9	430	40,5
2021	Alla	219	37,2	536	54,4	319	51,2	1074	48,9
	Pojkar	131	43,3	314	61,8	166	51,7	611	54,0
	Flickor	88	30,8	222	46,4	153	50,6	463	43,4
2022	Alla	224	38,9	485	48,6	308	49,6	1017	46,3
	Pojkar	130	43,9	296	57,7	156	48,8	582	51,5
	Flickor	94	33,5	189	39,0	152	50,4	435	40,8
2023	Alla	158	28,3	407	40,6	261	42,4	826	38,0
	Pojkar	96	33,5	237	45,9	127	40,1	460	41,1
	Flickor	62	22,9	170	34,9	134	44,9	366	34,6
2024	Alla	186		432		257		875	
	Pojkar	113		242		138		493	
	Flickor	73		190		119		382	

Completeness



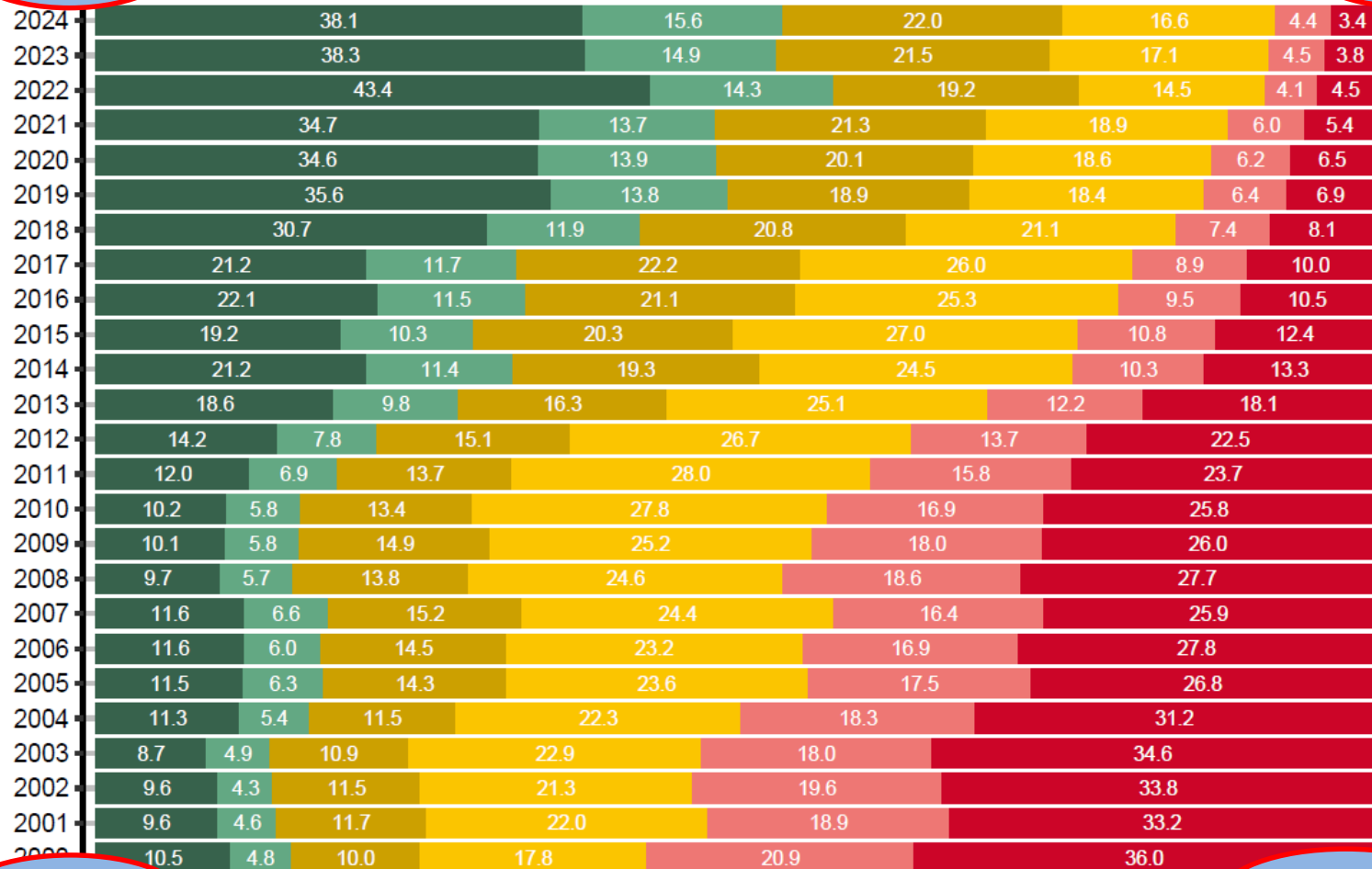


Mean HbA1c 24 April 2025



38.1

3.4



10.5

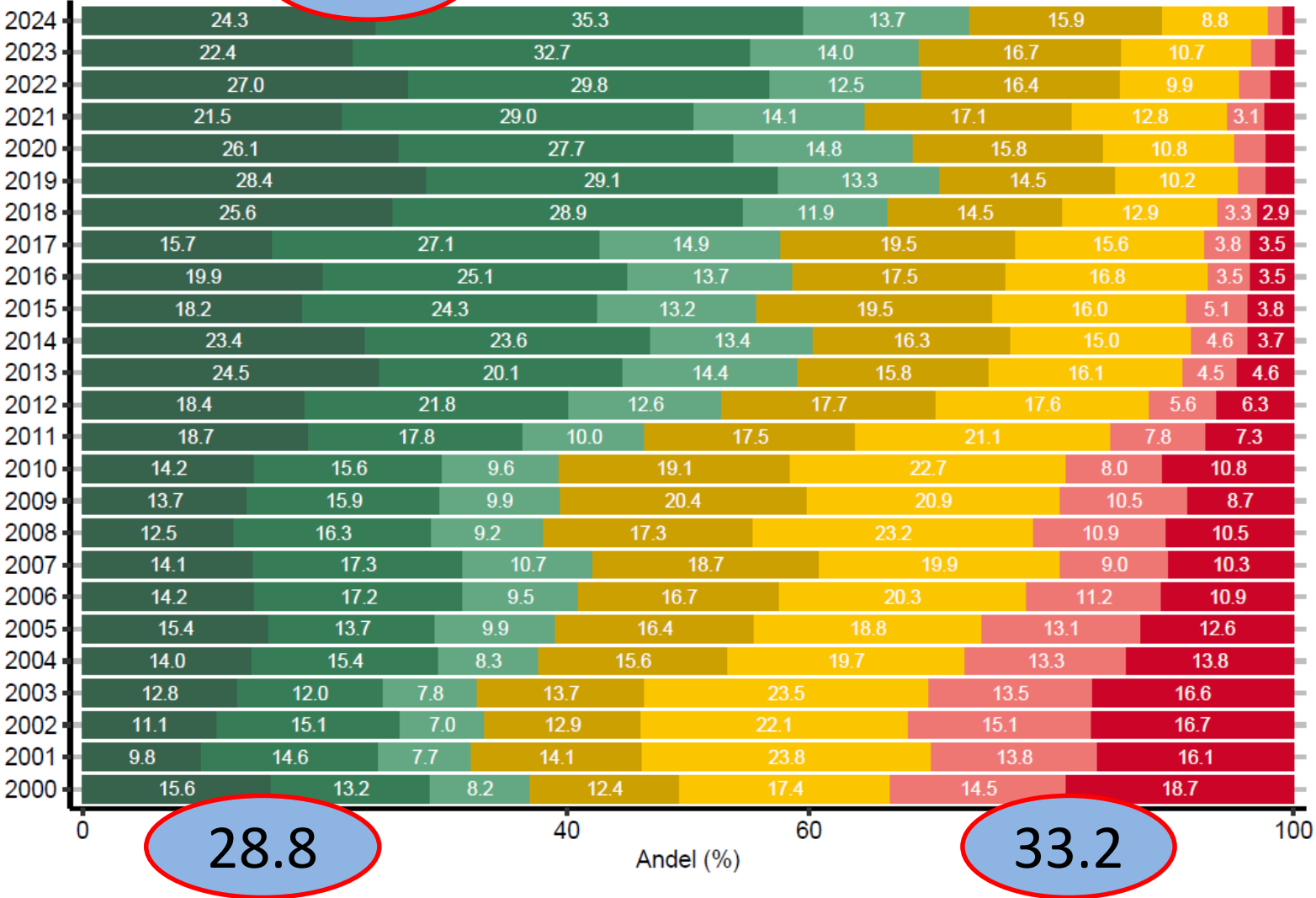
36.0

HbA1c-nivå

- ≤ 48 mmol/mol
- 49-51 mmol/mol
- 52-56 mmol/mol
- 57-64 mmol/mol
- 65-70 mmol/mol
- > 70 mmol/mol

59.6

<2 years duration



28.8

33.2

HbA1c-nivå

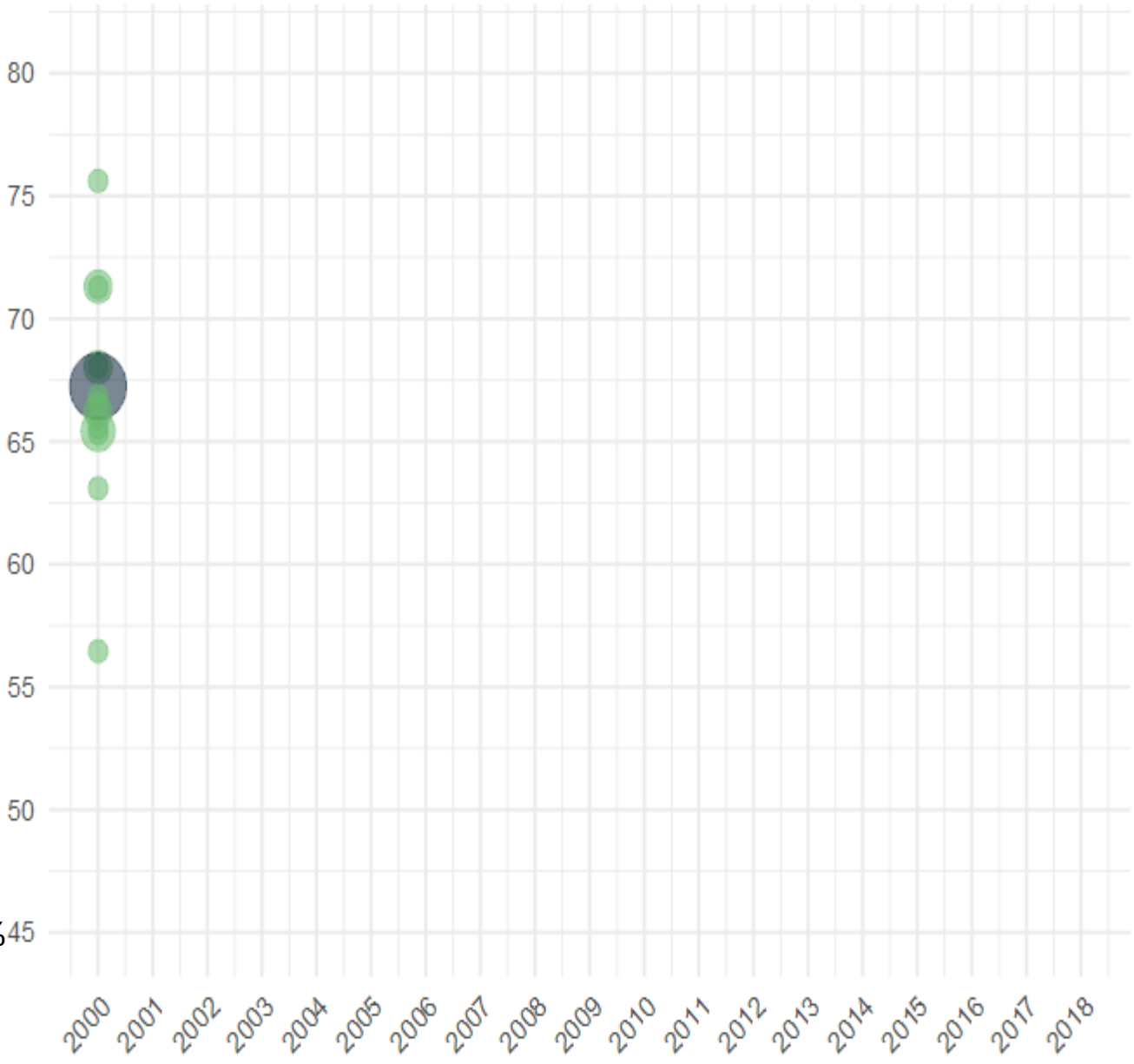
- ≤ 42 mmol/mol
- 42-48 mmol/mol
- 49-51 mmol/mol
- 52-56 mmol/mol
- 57-64 mmol/mol
- 65-70 mmol/mol
- > 70 mmol/mol

**“Nothing is impossible. Impossible
just takes a bit longer.”**

Dan Brown

9.4%

Mean HbA1c (mmol/mol)

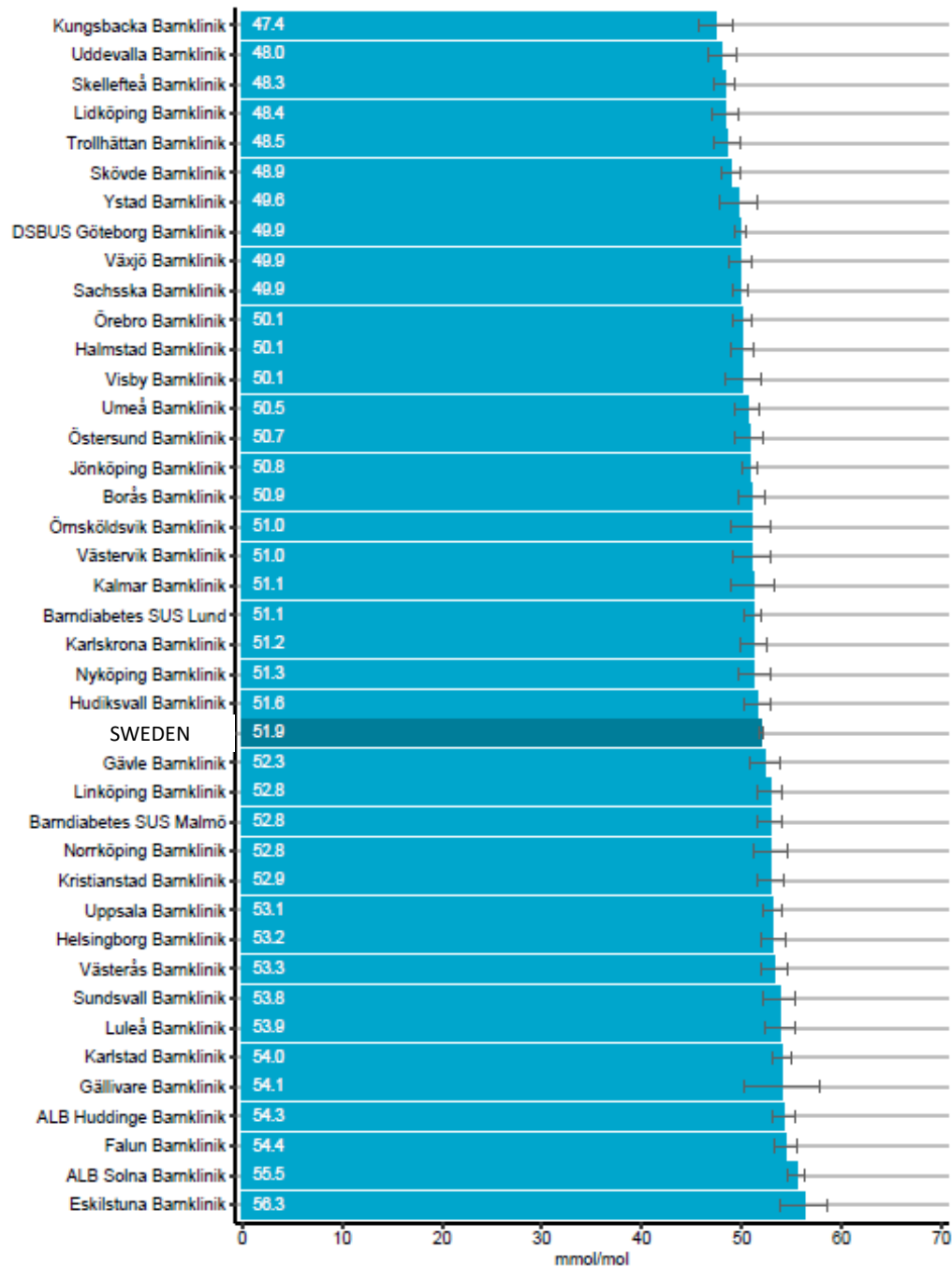


6.2%

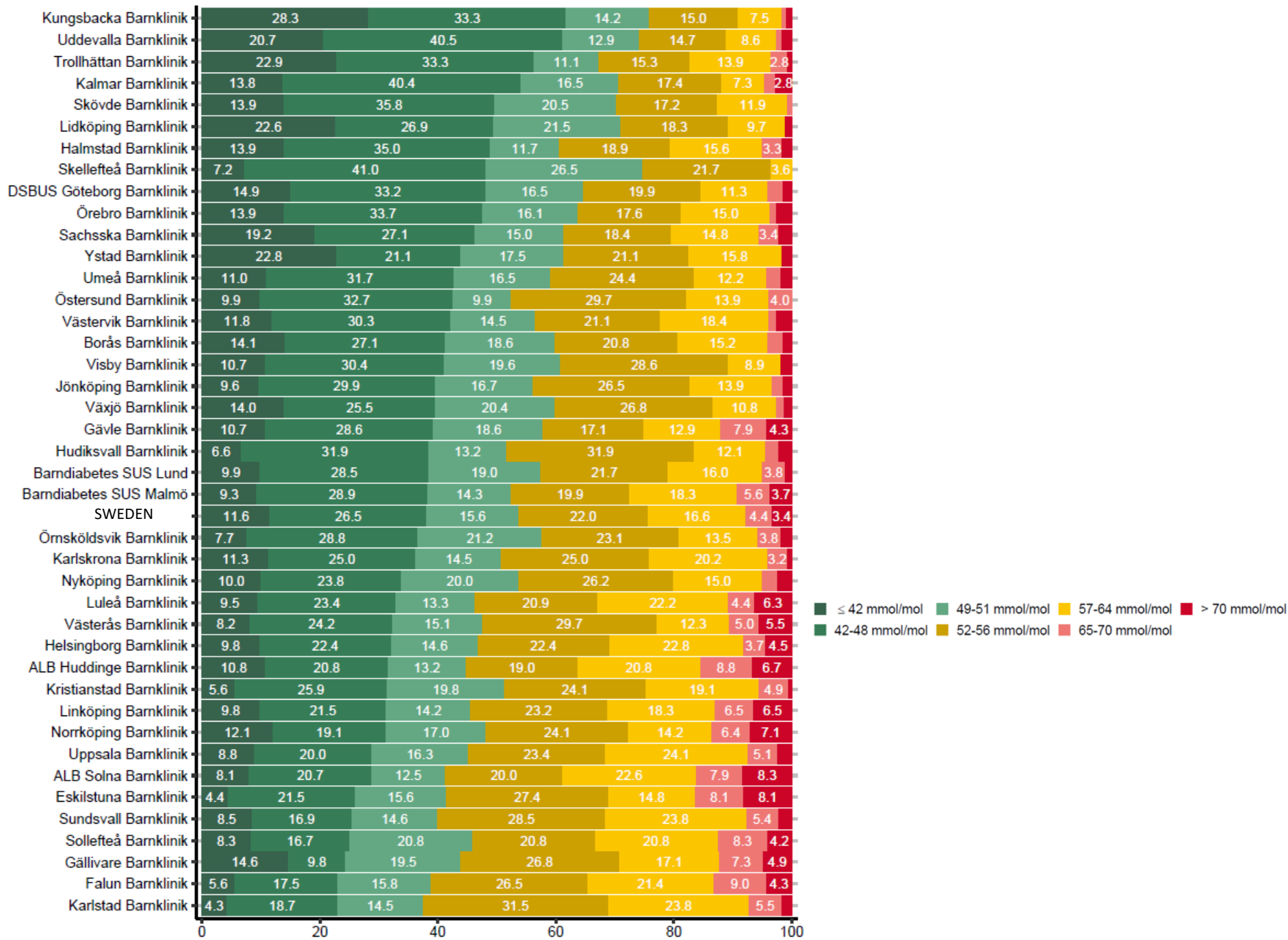
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

Year

by Jonatan Nåtman



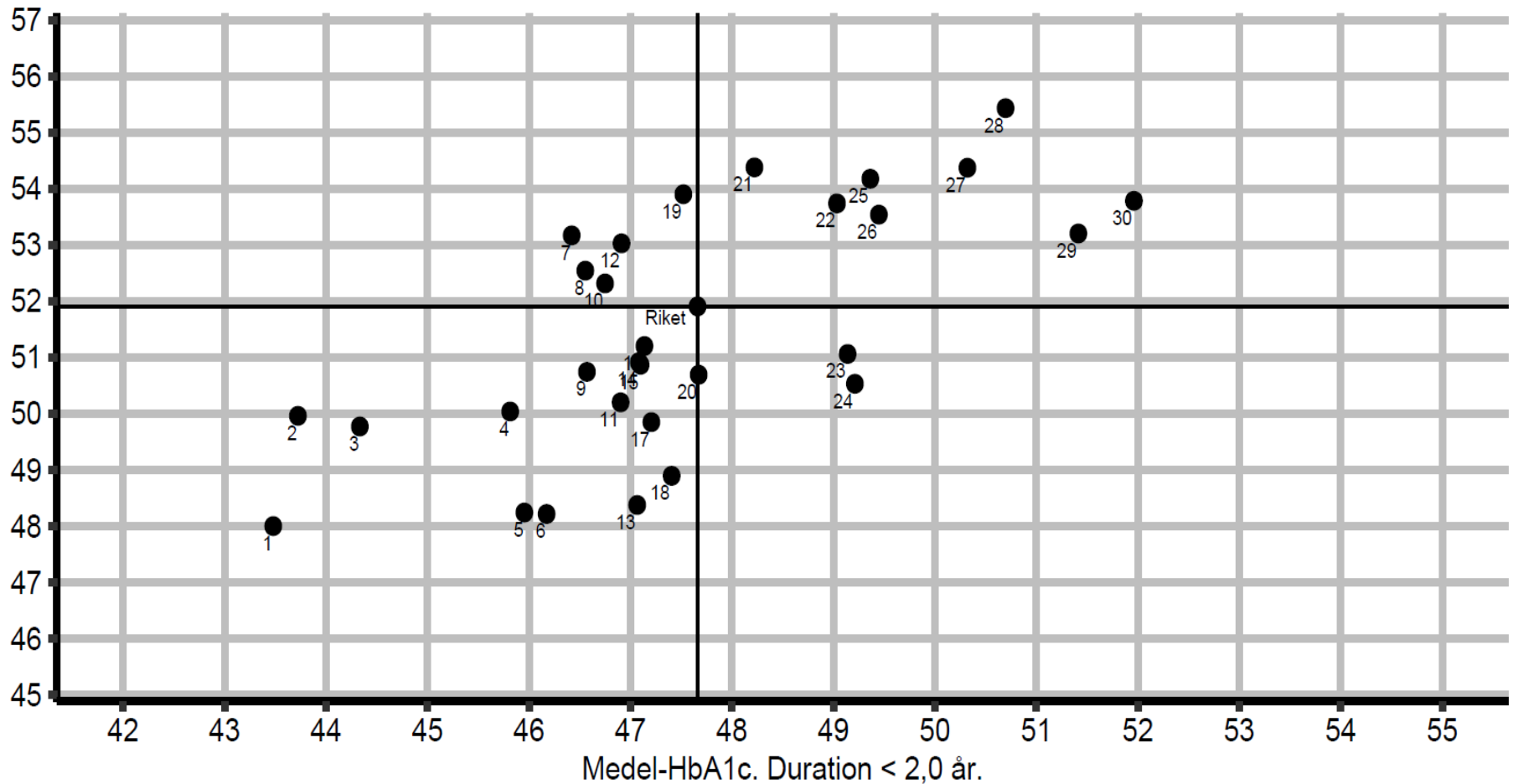
Annual report -
mean HbA1c



A good start

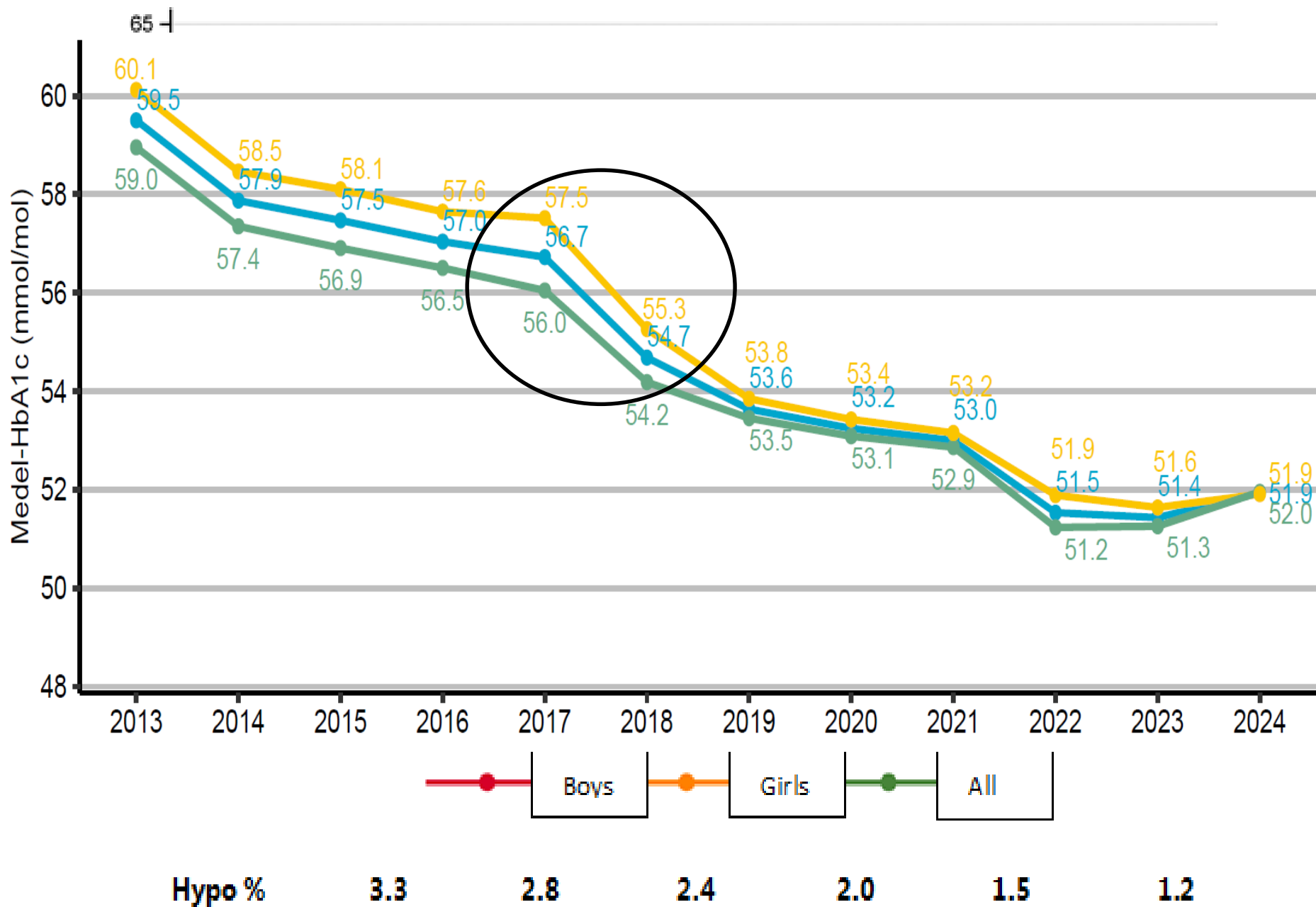


Average HbA1c per clinic versus the clinic's average HbA1c for patients with diabetes duration < 2.0 years



Average HbA1c per clinic versus the clinic's average HbA1c for patients with diabetes duration < 2.0 years

ID	Vårdenhet	Duration < 2,0 år		Totalt	
		Antal	Medel-HbA1c	Antal	Medel-HbA1c
1	Uddevalla Barnklinik	25	43,5	116	48,0
2	Sachsska Barnklinik	94	43,7	501	50,0
3	Växjö Barnklinik	24	44,3	157	49,8
4	Örebro Barnklinik	54	45,8	267	50,0
5	Skellefteå Barnklinik	22	46,0	83	48,2
6	Lidköping Barnklinik	23	46,2	93	48,2
7	Västerås Barnklinik	38	46,4	219	53,2
8	Barndiabetes SUS Malmö	27	46,6	301	52,5
9	Östersund Barnklinik	28	46,6	101	50,7
10	Gävle Barnklinik	32	46,8	140	52,3
11	Halmstad Barnklinik	31	46,9	180	50,2
12	Uppsala Barnklinik	57	46,9	295	53,0
13	Trollhättan Barnklinik	30	47,1	144	48,4
14	Borås Barnklinik	61	47,1	269	50,9
15	Västervik Barnklinik	20	47,1	76	50,9
16	Karlskrona Barnklinik	29	47,1	124	51,2
17	DSBUS Göteborg Barnklinik	126	47,2	582	49,8
18	Skövde Barnklinik	32	47,4	151	48,9
19	Norrköping Barnklinik	23	47,5	141	53,9
20	Jönköping Barnklinik	55	47,7	324	50,7
21	Linköping Barnklinik	27	48,2	246	54,4
22	Sundsvall Barnklinik	28	49,0	130	53,7
23	Barndiabetes SUS Lund	50	49,1	263	51,1
24	Umeå Barnklinik	33	49,2	164	50,5
25	ALB Huddinge Barnklinik	44	49,4	342	54,2
26	Luleå Barnklinik	29	49,4	158	53,5
27	Falun Barnklinik	53	50,3	234	54,4
28	ALB Solna Barnklinik	155	50,7	832	55,4
29	Helsingborg Barnklinik	29	51,4	246	53,2
30	Karlstad Barnklinik	26	52,0	235	53,8
	Riket	1400	47,7	8041	51,9





IQECAD 2025 Karin Åkesson

Support in school

Self care plan during the school day

Students with type 1 diabetes

Birth date

Name

Home address

Name of school

Grade

Parents/Guardians

Name

Name

Phone

Phone

Mail

Mail

Staff selected by the principal to assist the child with self-care

Name

Phone

Mail

Name

Phone

Mail

Name

Phone

Mail

Name

Phone

Mail

Diabetes team

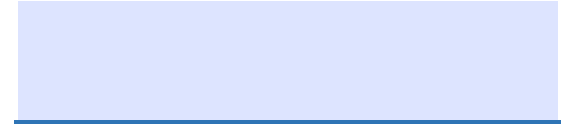
Name

Phone

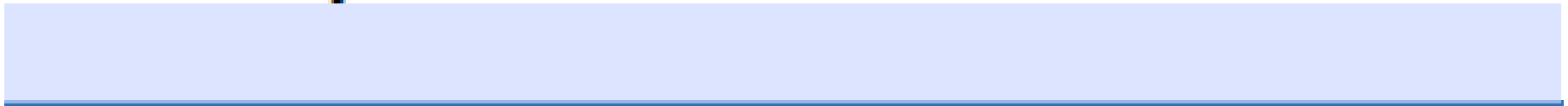
Mail

Child	Date, Telephone
Parent	Date, Telephone
Parent	Date, Telephone
Principal	Date, Telephone
Diabetes nurse	Date, Telephone

The self-care plan should be followed up and possibly revised



The undersigned has made the assessment on the child's diabetes treatment during the school day is to be considered self-care



Name and profession

Self-care plan during the school day

Samverkan mellan hem, skola och diabetesmottagning är reglerad enligt föreskrift från Socialstyrelsen (SOSFS 2009:6) och finns beskrivet i Skolverket 2014.

Föräldrar och skola ansvarar för att eleven får tillräckligt stöd för att han eller hon ska kunna utföra sin skolegenskap. Skolan ansvarar för att eleven får tillräckligt stöd för att han eller hon ska kunna utföra sin skolegenskap. Skolan ansvarar för att eleven får tillräckligt stöd för att han eller hon ska kunna utföra sin skolegenskap. Skolan ansvarar för att eleven får tillräckligt stöd för att han eller hon ska kunna utföra sin skolegenskap.

The principal has the responsibility to ensure that the child's need of help with self-care is offered.

Skolan ansvarar för att i god tid rapportera till vårdnadshavarna kommande schemaändringar, exempelvis utfläkter. Vårdnadshavarna ansvarar för att rapportera eventuella ändringar i behandlingsregimen till skolan. Skolan ansvarar för att eleven får tillräckligt stöd för att han eller hon ska kunna utföra sin skolegenskap.

Blodsocker ändras från dag till dag beroende på mängden mat som äts och fysisk aktivitet. Blodsocker justeras ofta dagligen. Ett välregulerat blodsocker ger eleven en god möjlighet till koncentration och inläring samt för att eleven ska kunna utföra sin skolegenskap.

Regulated by Swedish law

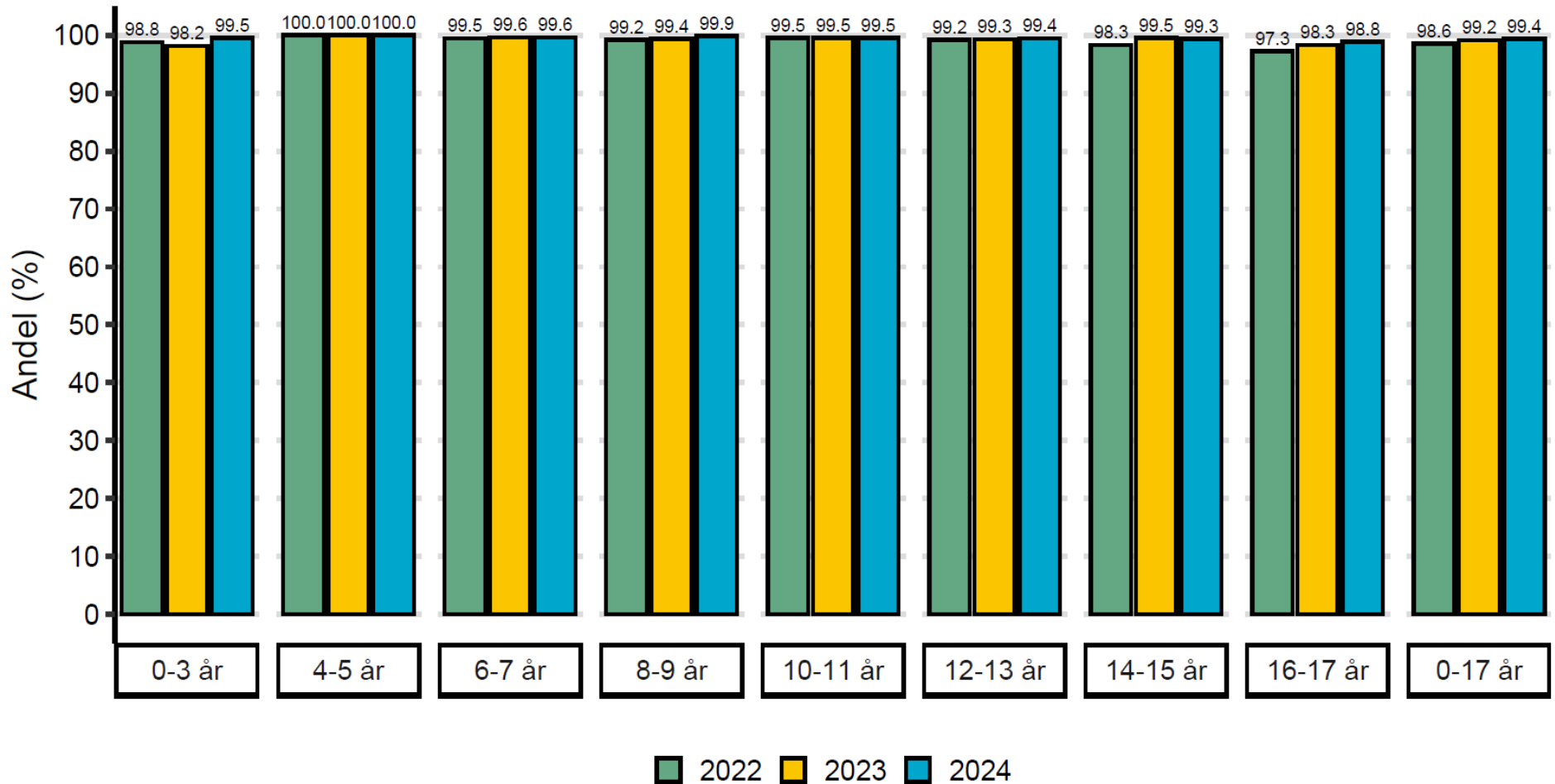
Blodsockertest under skoldagen

Eleven mäter blodsockernivån med:

- kapillärt blodsockertest ("stick i fingret")
- kontinuerlig blodsockermätning
- båda mätmetoderna

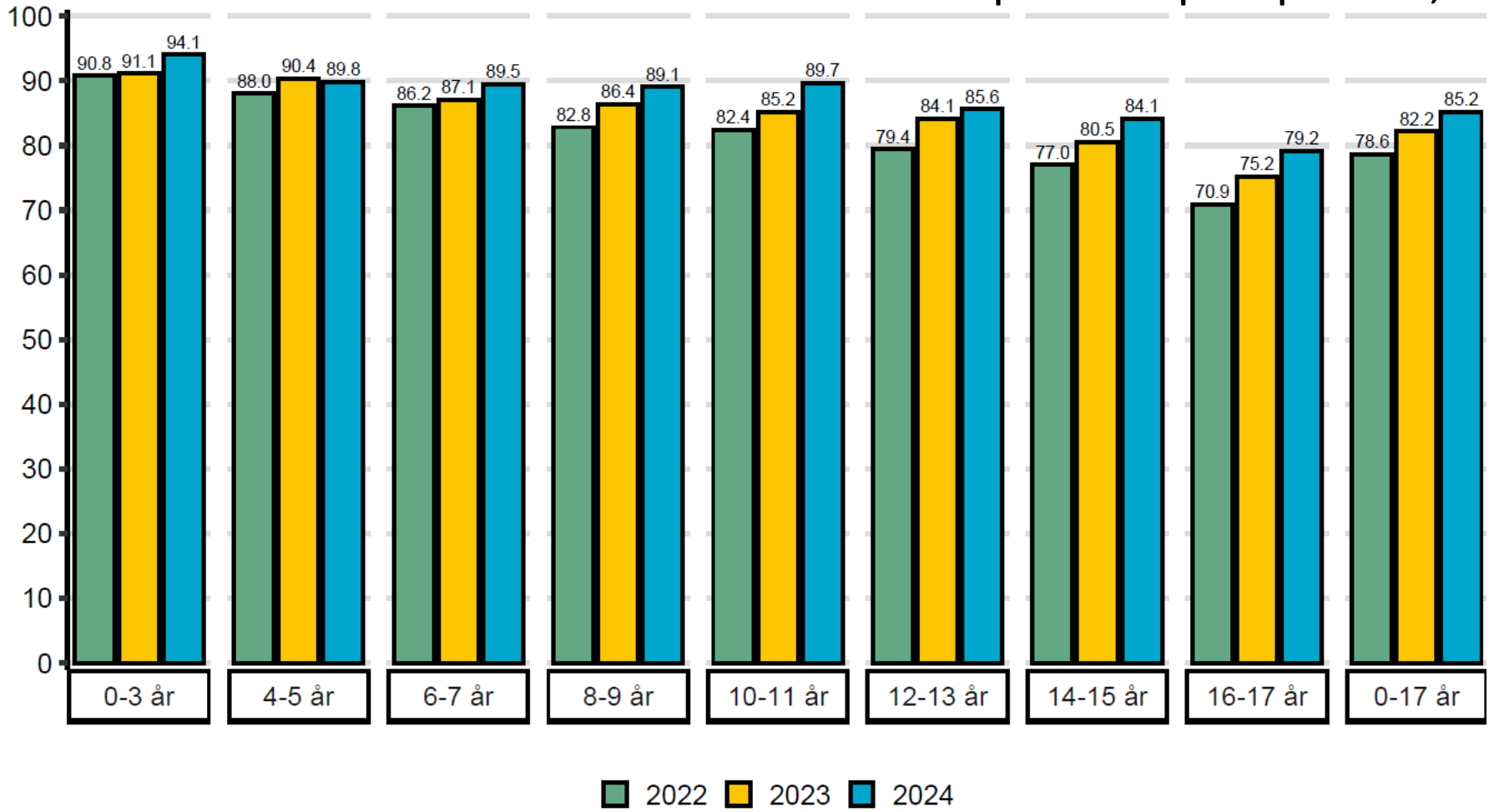
Appropriate equipment

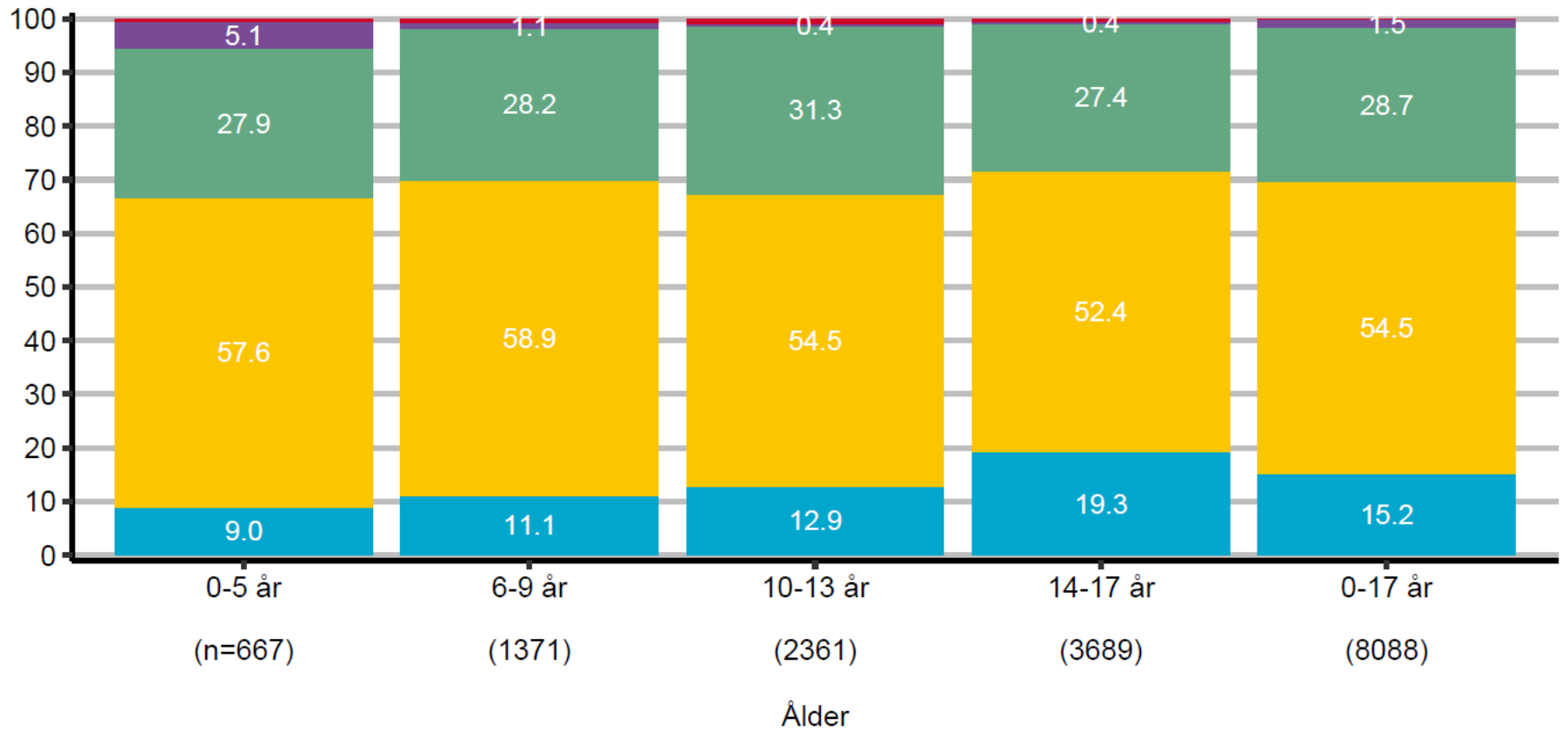
Proportion CGM users, %



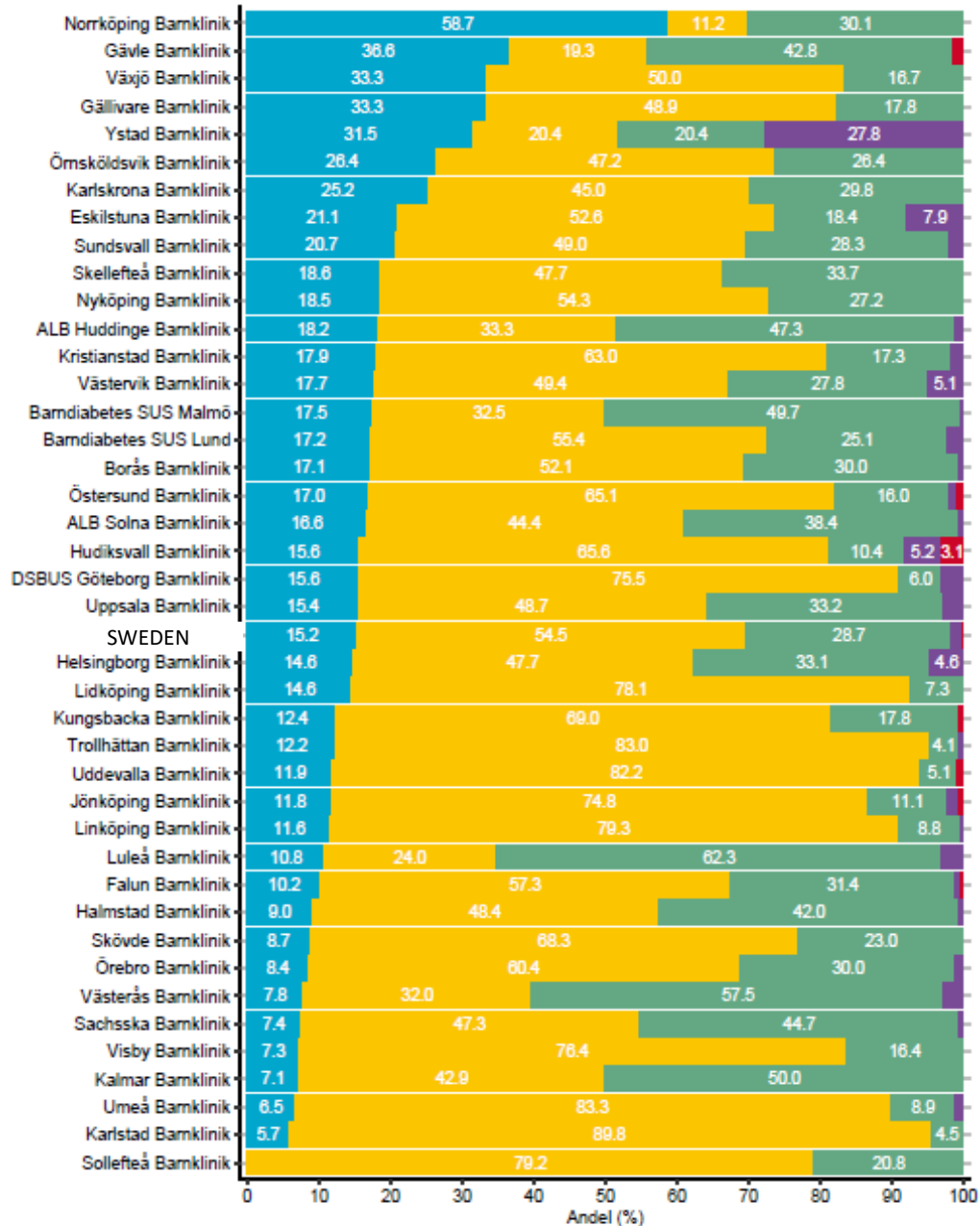
Appropriate equipment

Proportion pump users, %



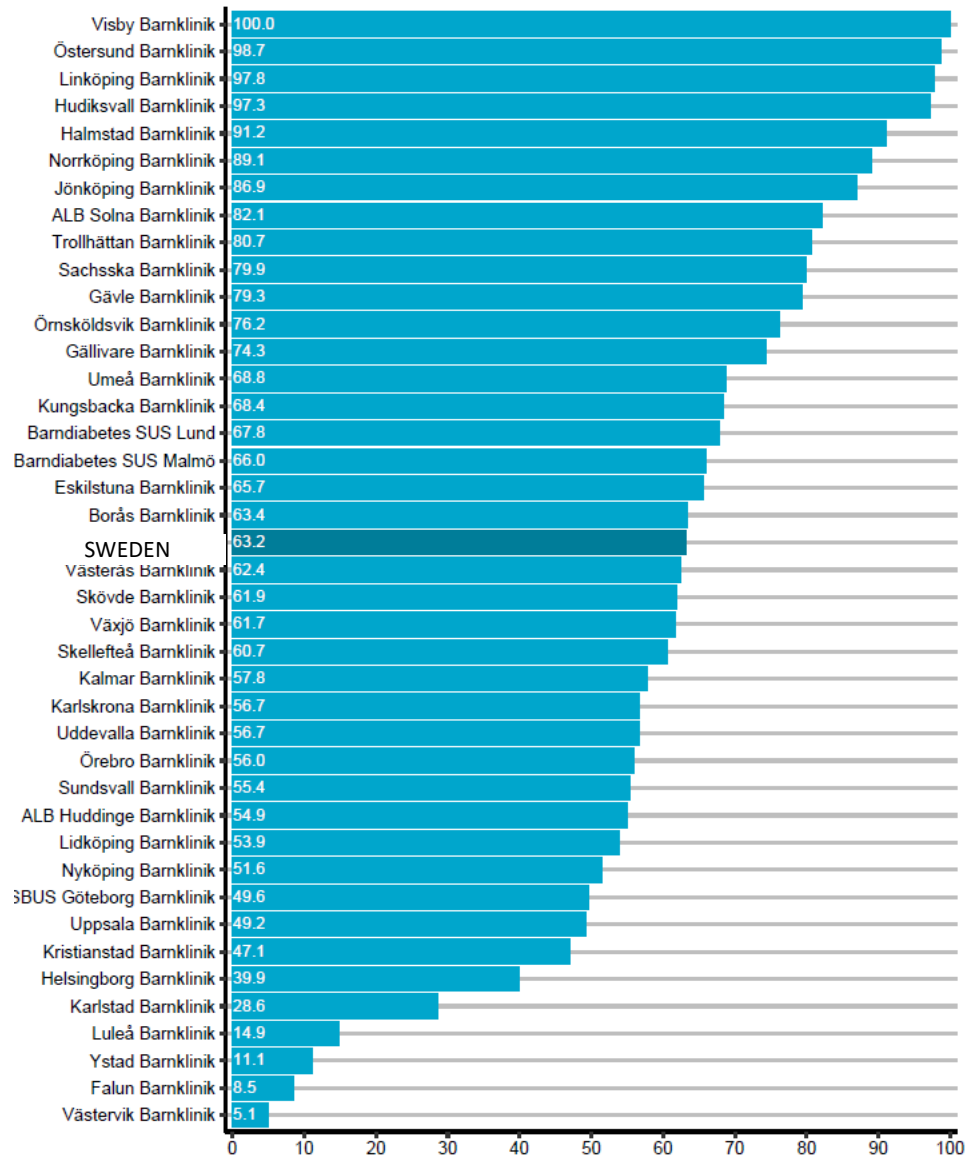


■ Insulinpenna
 ■ Hybridpumpar
 ■ Patchpumpar
 ■ SAP- sensor augmented pump
 ■ Övriga pumpar



■ Insulinpenna
 ■ Patchpumpar
 ■ Övriga pumpar
■ Hybridpumpar
 ■ SAP- sensor augmented pump

Blood pressure



Teamwork

- Multidisciplinary team



The Button

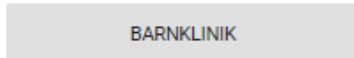
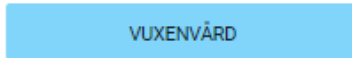


A push of a button for improvement work

Visa resultatet som



Vårdenhetstyp



Alla

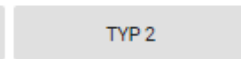
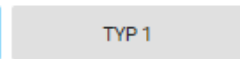
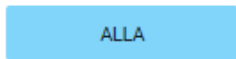


Primärvård



Medicinklinik

Diabetestyp



Indikator

Klicka här



Landsting

Klicka här



NDR.nu
"Knappen"



The Button

with results from
all of Sweden

*nu även barn- och
ungdomsvården*

The Button



A push of a button for improvement work

Rensa formulär

Timeline **Comparison between units**

Tidslinje Enhetsjämförelse

Jan 2022 Apr 2024 Mar 2025

Vårdenhetstyp

Adults Children

Senaste 12 månaderna Senaste fyra kvartal

2022	2023	2024	2025
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Diabetestyp

Alla Typ 1 Typ 2

Indicator

Klicka här

Fler filter

Age

0 17

Duration

0 17

Kön

Alla Pojkar Flickor

Region

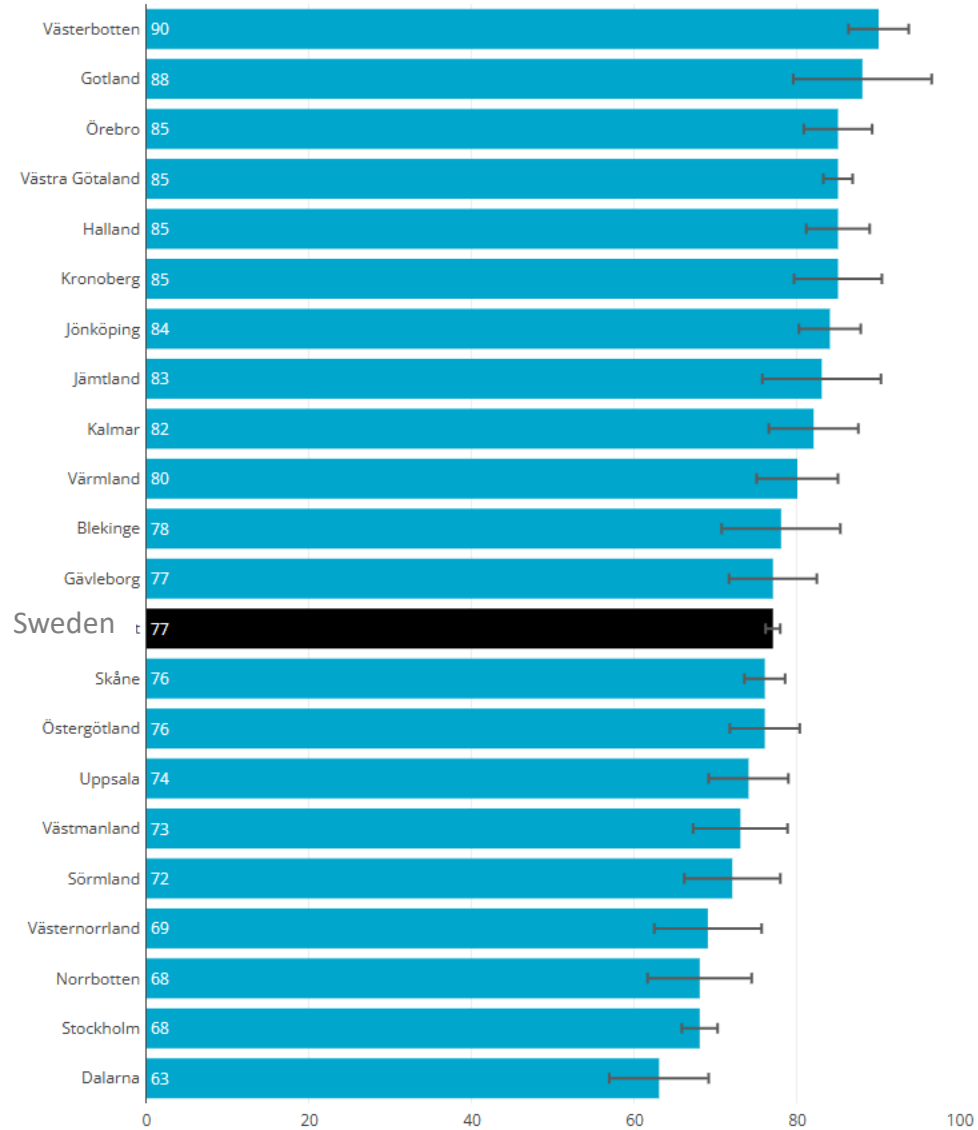
Klicka här

rensa val

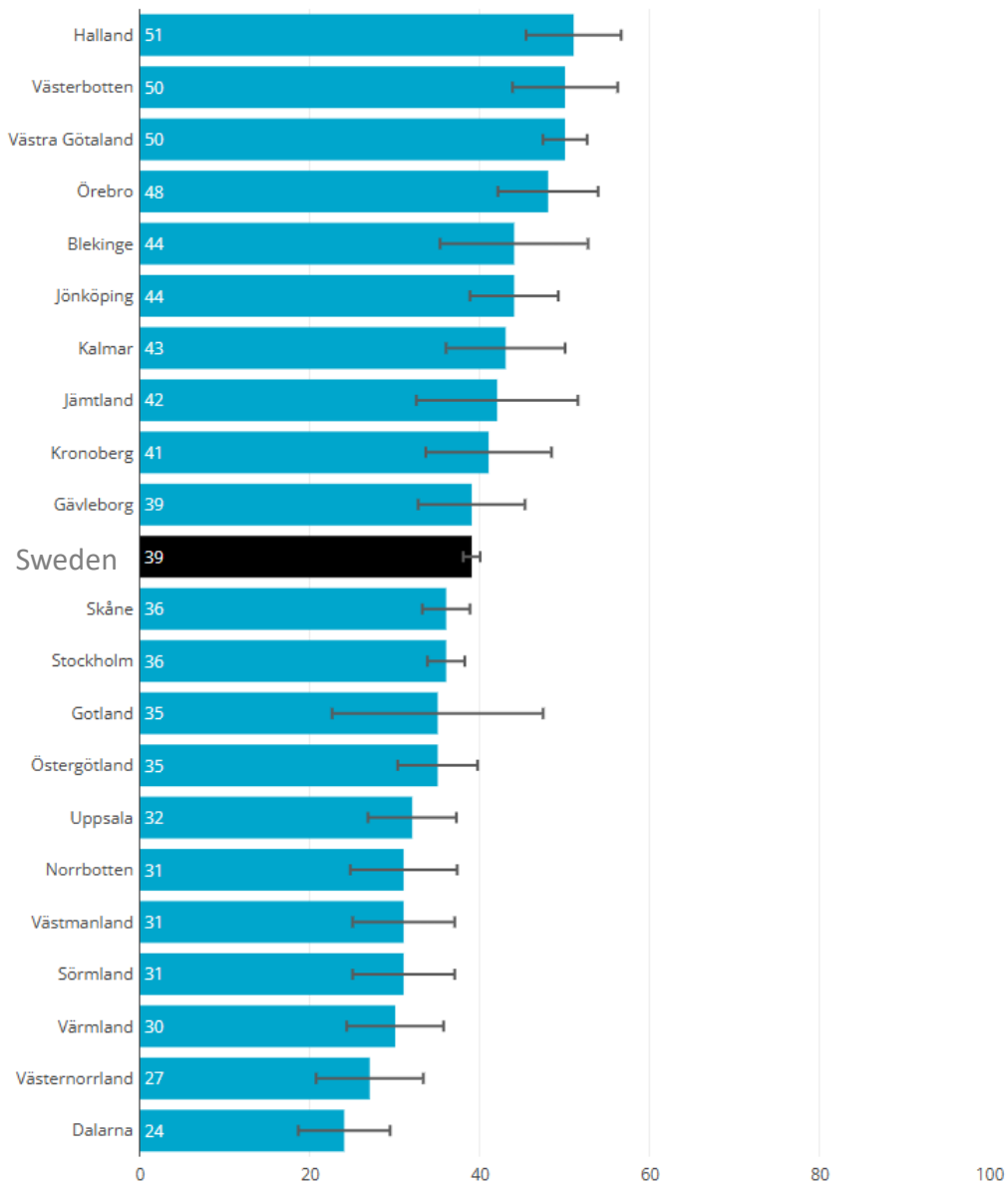
Vårdenhet

with results from
all of Sweden

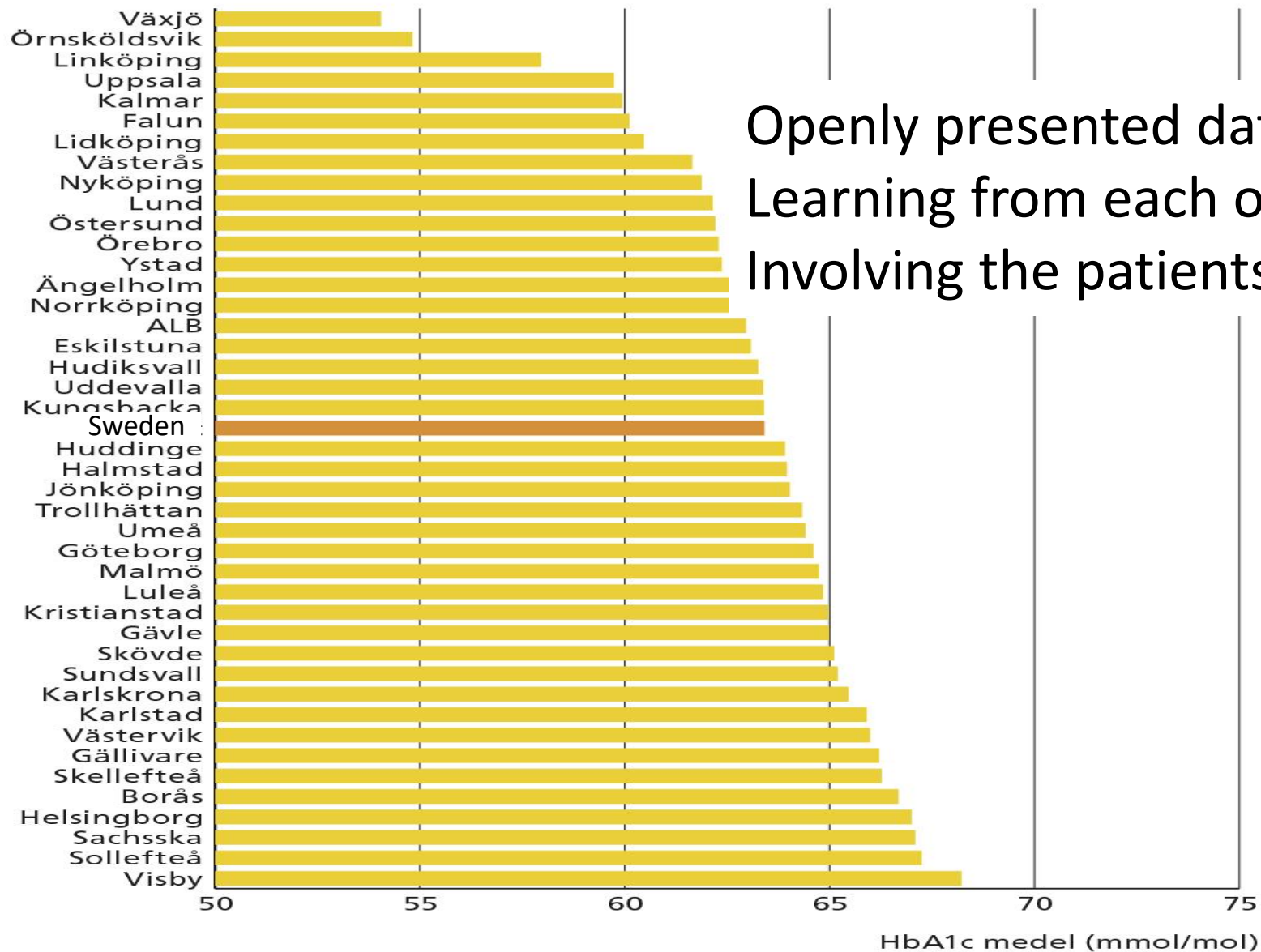
< 57 mmol/mol



< 48 mmol/mol



Mean HbA1c in 2011



Effective team work

Study of Swedish pediatric diabetes clinics via
SWEDIABKIDS

Five centers each with:
lowest/ highest/largest decrease center mean
HbA1c

Team members Questionnaires:
Structure, Process and Policy

Effective team work

- Higher compliance with guidelines
- Clear message of lower HbA1c-goal
- Well functioning teams

- Shorter professional working time
- Engaged team members with a positive attitude

Learning Network

EDM Forum



OPEN ACCESS

Using a network organisational architecture to support the development of Learning Healthcare Systems

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ABSTRACT

The US National Academy of Sciences has called for the development of a Learning Healthcare System in which patients and clinicians work together to choose care, based on best evidence, and to drive discovery as a natural outgrowth of every clinical encounter to ensure innovation, quality and value at the point of care. However, the vision of a Learning Healthcare System has remained largely aspirational. Over the last 13 years, researchers, clinicians and families, with support from our

Learning Healthcare System⁶ in which clinical care, science, informatics, incentives and culture are aligned for continuous improvement, innovation and research; new knowledge is captured as a by-product of care, and evidence is applied reliably and is seamlessly embedded in the delivery process.⁷

There have been few published exam-

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Richard B. Colletti

ImproveCareNow and University of Vermont, Richard.colletti@med.uvm.edu

- Team building
- The same message
- Distinct and clear goal setting
- Person- and family centered care
- Knowledge about new technologies
- Follow up of results

Start



Target

Support

Data

Teamwork

Sharing

Equipment

Thank you

