



## Disclosures

### Henk Veeze

- **Healthcare contracts with all Dutch insurance organizations; CoFounder and Director of Diabeter;**
- **Consultancy fees, research projects, speaker honoraria, or travel from:**
  - Bayer/Ascensia, NovoNordisk, Roche, Medtronic, Dexcom
- **Diabeter was acquired by Medtronic in April 2015** Diabeter is compliant with legal and healthcare policies and laws on independency for prescription, patient data, research and employee data. This includes supervisory board, client board, complaint board and transparency requirements.



## Diabeter measures outcomes & cost per patient

**Ther@py Email** Proactive scan for complications avoidance, allow us to have one of the lowest hospital admissions (2%)

**2 MEASURE OUTCOMES AND COSTS FOR EVERY PATIENT**

Personenlijst algemeen advies

14 02 2014 Glucose > 10 15 20 25 30 35 40 45 50 55 60 65 mmol/l

Dyslipidemie NieuwKapeel > 10 15 20 25 30 35 40 45 50 55 60 mmol/l

**ALGEMEEN ADVIES bij afwijkende bloedwaarden:** Lees telkens met de laatste glucosewaarde het volgende onderstaande advies. Bij een bepaalde waarde geldt, afhankelijk van de situatie, een advies en geneesmiddel. Indien nodig wordt er ook een advies gegeven voor de behandeling van kortwerkende insuline. Het advies kan dus met name de eerste 2 uur nog een merkbaar effect hebben. Volg niet alle andere geneesmiddel instructies van het sprekeuze app.

**15-20 mmol/l:** 15 gram glucose van sacharhoudende drank (zie etiket) meestal na 0,5-1 uur bij met goed kunen en sikkelen. Glucose 15 mg (-1 ampul) bij spijtoort of zomng 115. Controleer gluc. na 15 min. GEEN insulinegebruik.

**20-25 mmol/l:** Snelle loozhydraten of maximaal 15 gram gluc. (zie etiket). eventueel morgen de voorafgeerde dosis aanpassen. Controleer gluc. na 30 min. insulinegebruik.

**25-30 mmol/l:** Snelle loozhydraten of maximaal 15 gram gluc. (zie etiket). eventueel morgen de voorafgeerde dosis aanpassen. Controleer gluc. na 30 min. insulinegebruik.

**30-35 mmol/l:** Prima VOGA insulinegebruik na 15 gram snelle loozhydraten en controleer glucose tijdens de insulinegebruik.

**35-40 mmol/l:** VOGA insulinegebruik na 15 gram snelle loozhydraten en controleer glucose tijdens de insulinegebruik.

**40-45 mmol/l:** Zwaarlijk morgen de voorafgeerde dosis aanpassen, correctieadvies voor de volgende dag.

**45-50 mmol/l:** Bijzaken volgens schema. Controleer gluc. na 2u. en morgen de voorafgeerde dosis aanpassen. in met behandelplan.

**50-55 mmol/l:** Bijzaken volgens schema. met het behandelplan (kortstaaijden), en insuline en vermindert het dagtoelae. Controleer gluc. na 1.2u. in principe GEEN insulinegebruik. of glucose afgaan.

**55-60 mmol/l:** Bij zwaarlijk 2.0-2.0/2.0/2.0 in vermet het dectaal. Bijzaken volgens bovenstaand schema en instructie. Controleer gluc. na 30min. in GEEN insulinegebruik.

**20-25 mmol/l (360) DKA**

**15-20 mmol/l (270) ketones**

**11-15 mmol/l (200) Hyper**

**7-8 mmol/l (140) HGT range**

**3-5 mmol/l (63) managed as Hypo**

**2-7 mmol/l (49) Hypo**

**1-2 mmol/l (18) Hypo**

**Diabeter**

## Diabeter measures outcomes & cost per patient

**Ther@py Email** In addition patient empowerment and remote coaching drive outcome improvement

**2 MEASURE OUTCOMES AND COSTS FOR EVERY PATIENT**

**% IN TARGET HBA1C <7.5% (58 MMOL/MOL)**

**NUMBER OF PATIENTS (LEFT AXIS)**

**PERCENTAGE OF PATIENTS**

**NUMBER OF CONTACTS**

**+THER@PYMAIL**

**+TELEPHONE/EMAIL**

**Diabeter**

### Diabeter measures outcomes & cost per patient

**2 MEASURE OUTCOMES AND COSTS FOR EVERY PATIENT**

Continuous tracking leads to better HbA1c and continuous improvement

**Distribution of A1C by Age- Diabeter and T1D Exchange**

**Children with diabetes ≤18 y, all hospitals in NL**

Diabeter

### Diabeter measures outcomes & cost per patient

**2 MEASURE OUTCOMES AND COSTS FOR EVERY PATIENT**

**BETTER OUTCOMES LEAD TO LESS COMPLICATIONS AND POTENTIAL LOWER COST FOR THE HEALTHCARE SYSTEM**

Potential cost reduction when applying the Diabeter model in a country with 9% HbA1c avg population and 30.000 type 1 children lifetime (Real Case)

**TOTAL COST SAVINGS APPLYING DIABETER MODEL: \$2.2B**

- Diabetes related Complication Reduction:**
  - **41.6K USD** Saved over patient lifetime
- Indirect Cost Reduction (Improved Productivity):**
  - **33K USD** Saved over patient lifetime
- Better Health Outcomes:**
  - **5 Year** Average delay in complications onset

**Total per patient lifetime: 79.6K USD**

**Diabetes related Complication Reduction**

Diabeter vs MoH comparison showing 41.6K USD reduction in complications.

Diabeter

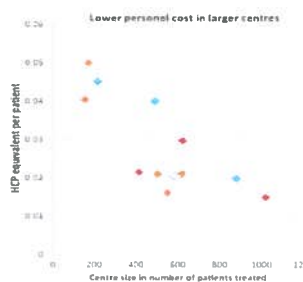


## Diabetes measures outcomes & cost per patient

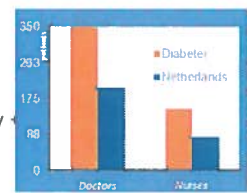
**2**  
MEASURE  
OUTCOMES AND  
COSTS FOR EVERY  
PATIENT

Continuous improvement mindset also leads to **TEAM EFFICIENCY** and **LOWER COST**

CLINIC	GRC	GBR	LUX	CZE	ITA	SWE	FRA	PRT	DEU	ROU	NLD	POL
Age range	1-32	1-22	0-18	0-18	1-22	0-18	0-20	0-21	0-21	0-35	0-25	
Nr. of patients	153	170	215	414	491	503	550	587	622	620	880	1020
Clinical admissions	13%	19%	10%	85%	7%	15%	27%	NA	59%	11%	3%	94%
Newly diagnosed in last year	20%	13%	9%	9%	7%	13%	8%	9%	13%	23%	6%	16%
Secondary referrals in last year	13.1%	4.7%	1.4%	4.1%	1.6%	0.8%	4.5%	13.1%	3.4%	0.0%	13.6%	3.0%
Insulin pump use	22%	12%	50%	30%	4%	38%	10%	0%	59%	2%	60%	72%
Patients per fulltime Medical Specialist (cost factor 2.5)	102	89	195	207	98	252	262	196	138	310	281	255
Patients per fulltime Nurse (cost factor 1)	85	77	215	207	123	144	275	294	183	89	152	510
Patients per fulltime other HCP (cost factor 1)	255	113	36	230	164	252	367	245	169	620	244	340
Patients per total number HCP (cost factor 1)	75	60	67	141	76	144	189	148	102	143	153	202



- Diabetes value:**
- Business case - size**
    - 1500 (not 80 patients)
    - Specialists 1:350-400 and not 1:100/200
    - Nurses 1:160 and not 1:80
    - Certificate patient/client safety ISO
    - Materials costs orchestrated by Vcare
    - Diabstore better contracts HIC



**Knowledge-case - outcome**  
Implementation case - ICT/technology

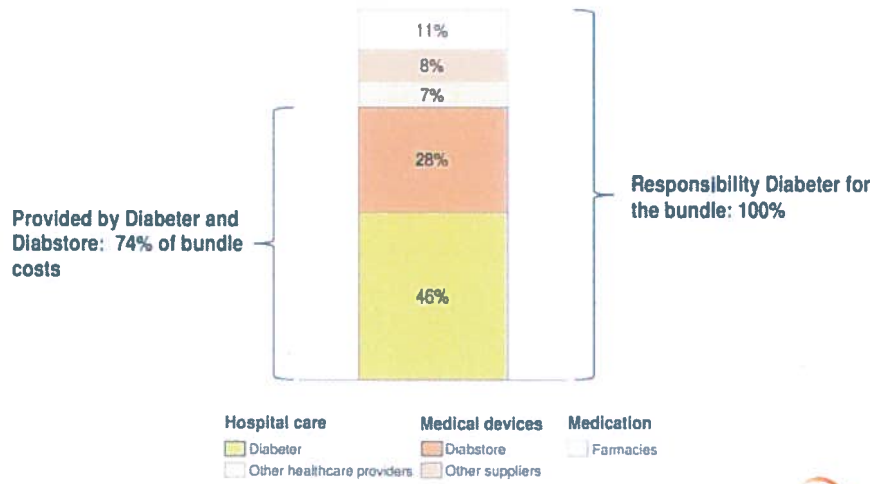


## Diabetes moves to bundle payments

**3**  
MOVE TO BUNDLED  
PAYMENTS FOR  
CARE CYCLES

**BUNDLE PAYMENT DRIVES OWNERSHIP & HEALTHCARE SUSTAINABILITY COMMITMENT**

Average bundle - costs distribution- 3 bundles (MDI, CSII and SAP)



**Hospital care**  
Diabeter (yellow), Other healthcare providers (light grey)

**Medical devices**  
Diabstore (orange), Other suppliers (light orange)

**Medication**  
Farmsies (white)



## Diabeter moves to bundle payments

**3**  
MOVE TO BUNDLED PAYMENTS FOR CARE CYCLES

**BUNDLE PAYMENT DRIVES OWNERSHIP & HEALTHCARE SUSTAINABILITY COMMITMENT**

**Long term (10yr) VBHC contracts without budget limits**

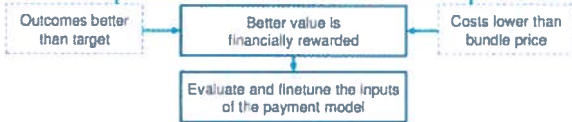
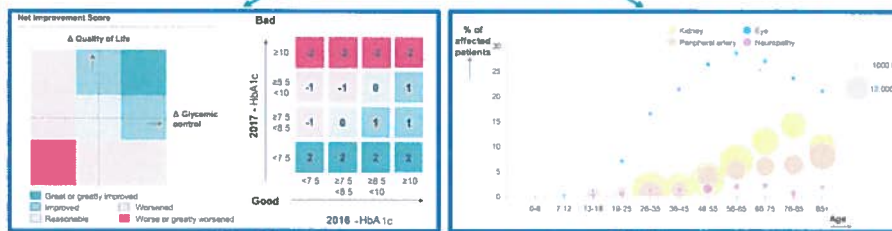
Trust base for longstanding transparent relations

*Invest now and save later*

Shared profit in case same or lower bundle costs, level dependent on achievements

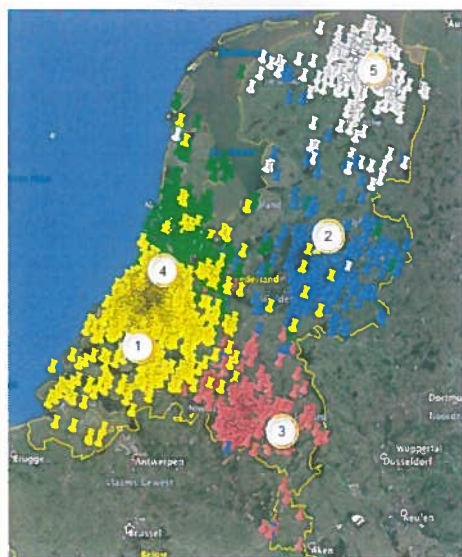
Bonus on lower future costs as predicted from HbA1c

**Bundled payment model with focus on lifetime value**

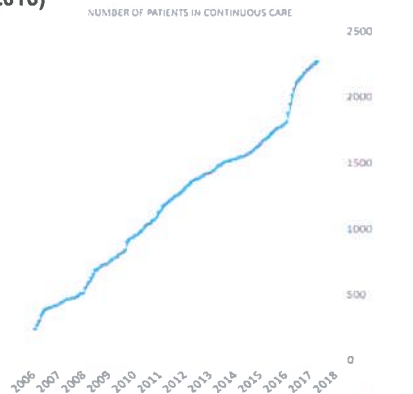


## Diabeter care is integrated across facilities

**4**  
INTEGRATE CARE DELIVERY ACROSS SEPARATE FACILITIES



**The Netherlands:**  
17 Mij inhabitants, 90 hospitals, 7 private insurances / public ruling  
**1 ROTTERDAM (2006), 2 DEVENTER (2008), 3 EINDHOVEN (2010), 4 AMSTERDAM (2015), 5 GRONINGEN (2016)**



## Diabeter solves a healthcare need and is scalable

5  
EXPAND  
EXCELLENT  
SERVICES ACROSS  
GEOGRAPHY

### The Diabeter model



- Works according the Value Based Health Care model principles
- An IPU with dedicated IT, dashboards and bundled payments including E-health strongly depend on the Vcare IT solution.
- Achieves good and can still further improve outcome in relation to costs.
- Diabeter can adopt new technologies and treatment strategies easily due to possibilities of internal cost shifting use of future savings and a single accountancy responsibility.
- Diabeter model is supported by IT and well documented and can easily be expanded.

Diabeter