Value-based Care und Ärztenetzwerke

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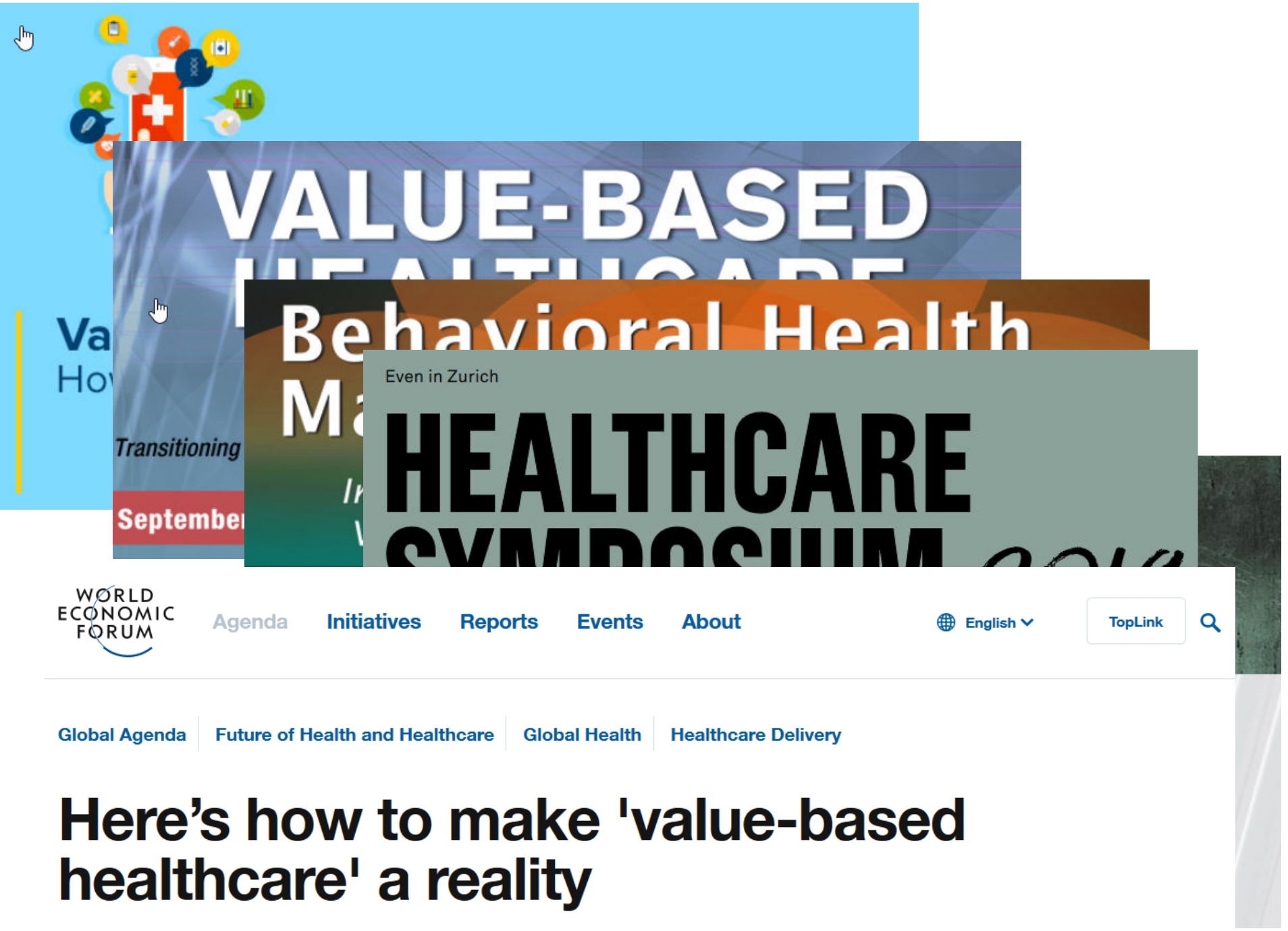
Agenda

- Das Konzept des Value based Health Care, VbHC
- Manged Care in der Schweiz – Update zur Datenlage
- «Qualitäts- / Performancemessung» seitens der Krankenversicherungen
- FIRE - MC 3.0: «Qualitäts- / Performancemessung» anhand von elektronischen KGs



Here's how to make 'value-based healthcare' a reality

Value based Health Care – was ist das?

«…value defined as the health outcomes per dollar spent»

Michael Porter Engl J Med. 2010 Dec 23;363(26):2477-81

«…the relationship between outcome and cost, expressed as the net health benefit - the difference between benefit and harm , taking into account the ressouces used»

Muir Gray **Lancet**. **2013** Jul 20;382(9888):200-1

Elemente der VbHC Konzepte

Hierarchie von Outcomes:

- Erreichter oder erhaltener Gesundheitszustand (achieved or retained health; net benefit, <-> «choosing wisely/less is more»)
- Der Prozess der Gesundung (process of recovery)
- Die Nachhaltigkeit des Gesundheitszustandes (sustainibility of health)
- Messung über «QALYs», Patient reported outcome measurements (PROMs), valide klinische Indikatoren oder Hospitalisationen

Ziel:

- Patientenorientierte Outcomes / Values (anstatt reiner Mortalitätsdaten) miteinander zu vergleichen um einen Wettbewerb in Gang zu setzen
- Indikationsqualität anhand externer Evidenz erfassen (<->EBM)

Umsetzung:

«**Integrated Practice Units**» mit «bundle payments» für die gesamte Versorgungskette (<-> Medical Home, CCM)

Value durch integrierte Versorgung/Managed Care in der Schweiz - Beispiele

- Retrospektive Kohortenstudie mit Routinedaten (Helsana)
- Patienten mit Diabetes mellitus (N=12'563), Herz-Kreislauf-Erkrankungen (N=71'778) und Asthma/COPD (N=17'498)
- (ATC Code, ICD-10)
- Mind. 18 Jahre
- Durchgängig versichert 2012-2013, 2012 als Basisjahr
- Grundversicherte (OKP) mit und ohne Managed Care Modell
- Definition MC als "echtes" MC-Modell mit Steuerungswirkung: Hausarzt-/HMO-Modell mit Budgetmitverantwortung

Huber CA Imt J Integr Care .2016 Jan-Mar; 16(1): 11

Effekt von MC auf Diagnose-bezogene Hospitalisationen im Folgejahr (2013)

	Diabetes mellitus		Kardiovaskuläre Erkrankungen		Asthma/COPD	
Charakteristika	**Odds Ratio**	**95%-CI**	**Odds Ratio**	**96%-CI**	**Odds Ratio**	**95%-CI**
Geschlecht						
Frauen	0.79***		0.75***		0.64***	
Altersgruppen (Jahre)						
45-54	1.49***		2.26***		1.99***	
55-64	1.90***		3.42***		4.31***	
65-74	2.47***		5.11***		6.54***	
75-84	3.57***		7.25***		7.15***	
≥85	5.11***		10.45***		9.19***	
Managed Care						
	0.87* **		**0.92*** **		**0.95**	
Franchise						
Hoch (< CHF 500)	0.89***		0.79***		0.56***	
Chronic Disease Score						
Level 2	1.33		1.25***		1.15	
Level 3	1.66**		1.49***		1.51**	
Level 4	2.33***		2.02***		1.93***	
Level 5	3.51***		2.92***		3.05***	

Huber CA Imt J Integr Care .2016 Jan-Mar; 16(1): 11

Effekt von MC auf Total-Kosten im Folgejahr (2013)

	Diabetes mellitus		Kardiovaskuläre Erkrankungen		Asthma/COPD	
Charakteristika	**Estimate (CHF)**	**95%-CI**	**Estimate (CHF)**	**96%-CI**	**Estimate (CHF)**	**95%-CI**
Geschlecht						
Frauen	-669.1***		-412.2***		284.0***	
Altersgruppen (Jahre)						
45-54	-769.7**		213.4**		220.4**	
55-64	-84.5		431.2***		1'127.3***	
65-74	740.1**		1'242.4***		1'942.7***	
75-84	1'850.8***		2'300.5***		2'655.6***	
≥85	3'379.8***		3'499.8***		3'368.2***	
Managed Care	**-777.8*** **		**-441.3*** **		**-217.9*** **	
Franchise						
Hoch (< CHF 500)	-344.2		-1'051.0***		-1'266.0***	
Chronic Disease Score						
Level 2	642.2**		861.4***		1'054.1***	
Level 3	2'189.6***		2'019.8***		1'855.1***	
Level 4	3'750.8***		4'405.9***		4'820.9***	
Level 5	10'022.8***		11'260.3***		11'960.6***	

Huber CA Imt J Integr Care .2016 Jan-Mar; 16(1): 11

Observational Study

Medicine®

OPEN

One-year adherence to oral antihyperglycemic medication and risk prediction of patient outcomes for adults with diabetes mellitus

An observational study

Carola A. Huber (PhD, MPH)[a,*], Roland Rapold (PhD)[a], Beat Brüngger[a], Oliver Reich (PhD)[a], Thomas Rosemann (MD, PhD)[b]

	Hospitalization risk					
	Total		Nonadherent patients (PDC < 80%)		Adherent patients (PDC ≥ 80%)	
Variable	Hazard ratio (95% CI)	*P*	Hazard ratio (95% CI)	*P*	Hazard ratio (95% CI)	*P*
Gender						
Male	1.00		1.00		1.00	
Female	0.88 (0.84–0.91)	≤0.001	0.92 (0.88–0.97)	≤0.01	0.82 (0.77–0.87)	≤0.01
Age in groups						
18–44	1.00		1.00		1.00	
45–54	0.997 (0.84–1.19)	0.975	1.01 (0.82–1.24)	0.016	1.02 (0.73–1.42)	0.923
55–64	1.30 (1.10–1.53)	≤0.01	1.27 (1.05–1.54)	≤0.001	1.38 (1.01–1.90)	≤0.05
65–74	1.75 (1.49–2.06)	≤0.001	1.69 (1.40–2.04)	≤0.001	1.90 (1.40–2.60)	≤0.01
75–84	2.32 (1.98–2.73)	≤0.001	2.30 (1.91–2.77)	≤0.001	2.45 (1.80–3.34)	≤0.01
≥85	2.65 (2.24–3.13)	≤0.001	2.51 (2.06–3.06)	≤0.001	2.98 (2.16–4.10)	≤0.01
Insurance plan						
Managed care	0.96 (0.92–1.002)	0.059	0.95 (0.90–1.01)	0.081	0.97 (0.91–1.03)	0.334
High deductible class (>500 Swiss Francs)	0.79 (0.71–0.87)	≤0.001	0.79 (0.69–0.89)	≤0.001	0.80 (0.68–0.95)	≤0.01
Preceding hospitalization	1.49 (1.41–1.58)	≤0.001	1.51 (1.41–1.63)	≤0.001	1.45 (1.32–1.60)	≤0.01

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Medicine (Baltimore). 2016 Jun;95(26):e3994.

Post-myocardial Infarction (MI) Care: Medication Adherence for Secondary Prevention After MI in a Large Real-world Population

Table I. Baseline characteristics of the study patients (N = 4349).

Characteristic	Value
Sociodemographic characteristics	
Male	3015 (69.3%)
Mean age, SD, y	68.5 (12.9)
Age groups	
18–44 y	149 (3.4%)
45–54 y	528 (12.1%)
55–64 y	948 (21.8%)
65–74 y	1160 (26.7%)
75–84 y	1117 (25.7%)
≥85 y	447 (10.3%)
Health insurance status (at index hospitalization)	
Managed care model	1935 (44.5%)

Clin Ther. 2019 Jan;41(1):107-117

Medication Adherence

Table IV. Association between patient characteristics and medication adherence (medication possession ratio ≥80%). Values are given as odds ratios (95% CIs).

Variable	DAPT	LLDs	ACE Inhibitors/ARBs	BBs
Sex (female)	1.03 (0.90–1.19)	0.74 (0.63–0.86)	1.01 (0.88–1.16)	1.39 (1.14–1.70)
Age groups				
45–54 y	0.88 (0.59–1.32)	1.62 (1.01–2.60)	0.89 (0.62–1.29)	0.78 (0.45–1.35)
55–64 y	0.76 (0.52–1.12)	1.54 (0.99–2.39)	1.09 (0.77–1.55)	0.78 (0.46–1.30)
65–74 y	0.54 (0.37–0.79)	1.04 (0.68–1.61)	1.03 (0.72–1.46)	0.65 (0.39–1.09)
75–84 y	0.32 (0.22–0.48)	0.65 (0.43–1.01)	1.00 (0.70–1.43)	0.59 (0.35–1.00)
≥85 y	0.25 (0.17–0.38)	0.27 (0.17–0.43)	0.55 (0.37–0.81)	0.38 (0.21–0.68)
Managed care plan	1.10 (0.97–1.25)	1.18 (1.02–1.37)	1.14 (1.01–1.29)	0.87 (0.72–1.05)
High deductible (SFr >500)	1.36 (1.13–1.62)	1.08 (0.87–1.35)	0.90 (0.76–1.07)	0.72 (0.54–0.97)
Comorbidity (at index)				
Diabetes	0.80 (0.68–0.94)	0.93 (0.78–1.12)	1.22 (1.05–1.43)	1.44 (1.16–1.79)
Hypertension	0.90 (0.79–1.02)	1.08 (0.93–1.26)	1.91 (1.68–2.17)	1.29 (1.05–1.57)
Congestive heart failure	0.89 (0.75–1.06)	1.11 (0.91–1.35)	1.24 (1.05–1.47)	1.53 (1.22–1.93)
Angina	0.74 (0.44–1.24)	0.63 (0.37–1.08)	0.53 (0.31–0.88)	1.00 (0.47–2.13)
Stroke	0.93 (0.46–1.90)	1.05 (0.46–2.40)	0.66 (0.33–1.32)	1.13 (0.38–2.64)
Atrial fibrillation	0.36 (0.29–0.45)	0.82 (0.67–1.02)	0.96 (0.79–1.16)	1.60 (1.23–2.07)
MI (1 year before)	0.87 (0.72–1.06)	0.72 (0.58–0.89)	0.96 (0.79–1.16)	0.91 (0.67–1.23)

ACE = angiotensin-converting enzyme; ARB = angiotensin receptor blocker; BBs = beta-blockers; DAPT = dual antiplatelet therapy; LLDs = lipid-lowering drugs; MI = myocardial infarction; SFr = Swiss Francs.

Clin Ther. 2019 Jan;41(1):107-117

Gesamtmortalität im MC um 35% reduziert

Table V. Prediction of patient outcomes according to medication adherence (medication possession ratio [MPR] ≥80%). Values are given as hazard ratios (95% CI).

Variable	Mortality	MACE
Sex (female)	0.86 (0.66–1.12)	0.89 (0.71–1.11)
Age groups		
18–44 y	Ref.	Ref.
45–54 y	1.09 (0.23–5.12)	0.83 (0.39–1.77)
55–64 y	0.96 (0.22–4.25)	1.05 (0.52–2.11)
65–74 y	2.35 (0.56–9.76)	1.11 (0.56–2.24)
75–84 y	4.35 (1.06–17.90)	1.54 (0.77–3.10)
≥85 y	11.93 (2.89–49.23)	1.75 (0.84–3.63)
Managed care plan	0.65 (0.49–0.86)	1.08 (0.88–1.33)
Medication adherence (MPR)		
DAPT	0.68 (0.50–0.91)	1.09 (0.87–1.36)
LLDs	0.59 (0.45–0.77)	0.54 (0.43–0.68)
ACE inhibitors/ARBs	0.73 (0.56–0.95)	1.15 (0.93–1.43)
Beta-blockers	2.10 (1.51–2.93)	2.15 (1.66–2.80)

Clin Ther. 2019 Jan;41(1):107-117

Performancemessung durch die Versicherungen

A set of four simple performance measures reflecting adherence to guidelines predicts hospitalization: a claims-based cohort study of patients with diabetes

Datum: 06.08.2016

Tages-Anzeiger

Gastbeitrag Wenn die Therapiefreiheit die Gesundheit gefährdet. *Von Daniel H. Schmutz*

Die Grenzen der Therapiefreiheit

Adherence to recommended diabetes care guidelines by drug treatment group

	Total	Users of oral OAs	Users of insulin	Users of OAs and insulin in combination
	%	%	%	%
≥2 HbA_{1c} measurements in a year (level 1)	24.0	22.3	27.3	28.7
Level 1 and annual lipid profile (level 2)	37.0	37.1	33.7	39.1
Level 2 and nephropathy status (level 3)	4.3	4.1	4.3	5.0
Level 3 and visit to an ophthalmologist (level 4)	4.8	3.7	7.7	7.2

Huber CA et al. Patient Prefer Adherence. 2016 Mar 1;10:223-31

BMJ Open

Measuring diabetes guideline adherence with claims data: systematic construction of indicators and related challenges

Agne Ulyte,[1] Caroline Bähler,[2] Matthias Schwenkglenks,[1] Viktor von Wyl,[1] Oliver Gruebner,[1,3] Wenjia Wei,[1] Eva Blozik,[2] Beat Brüngger,[2] Holger Dressel[1]

Problem: die Versicherer haben (ausser Hospitalisation und Mortalität) nur Daten für Prozessindikatoren!

measurement of quality of primary care using health insurance claims data in Switzerland: results of a pragmatic consensus process

Blozik *et al. BMC Health Services Research* (2018) 18:743
https://doi.org/10.1186/s12913-018-3477-z

Eva Blozik[1,2,3*], Oliver Reich[1], Roland Rapold[1], Martin Scherer[2] and Swiss Quality Indicator for Primary Care (SQIPRICA) Working Group

Comparison of Electronic Health Record–Based and Claims-Based Diabetes Care Quality Measures: Causes of Discrepancies

HSR Health Services Research

© Health Research and Educational Trust
DOI: 10.1111/1475-6773.12819
RESEARCH ARTICLE

Table 5: Prevalence of HbA1c and LDL-C Testing in 2013 for DM Patients with Concordant Assignment

Parameter	*Site 1*	*Site 2*	*Site 3*
HbA1c			
Claims*	0.89	0.82	0.04
EHR†	0.96	0.94	0.65
EHR/Claims	1.08	1.14	18.34
LDL-C			
Claims*	0.63	0.37	0.04
EHR†	0.82	0.85	0.50
EHR/Claims	1.29	2.34	14.18

*A paid claim for the test from any performer in 2013.
†Presence of a test result in 2013 in the laboratory module.

Research Paper ■

Comparison of Methodologies for Calculating Quality Measures Based on Administrative Data versus Clinical Data from an Electronic Health Record System: Implications for Performance Measures

The difference between these two groups is statistically significant for
- HbA1c Testing (97% vs. 68%, p <0.001),
- Blood Pressure Control (61% vs. 45%, p <0.05),
- Urine Protein Testing (85% vs. 55%, p<0.001),
- Eye Exam (62% vs. 41%, p<0.03).

Without adding burden to the care process, clinical data entered by clinicians into an EHR system at the point of care should be mined to generate new knowledge, measure performance, and reward those who deliver the best care with the best outcomes.

J Am Med Inform Assoc. 2007;14:10 –15.

FIRE Projekt – prädestiniert um die Qualität und Leistung der Hausarztmedizin abzubilden

Ärzte	511
Patienten	600,641
Konsultationen	6,492,540
Vital-Daten	2,581,640
ICPC-Diagnosen	3,860,507
Laborwerte	6,005,939
Medikamente	23,441,465

(Stand: 28.02.2019)

The FIRE Project
family medicine icpc research using electronic medical records

Performance Messung mit FIRE: FIRE Ärzte sind besser als die Studienärzte in den Zulassungsstudien der NOAKS

	RE-LY	ROCKET-AF	ARISTOTELE	ENGAGE	FIRE
NOAK	Dabigatran	Rivaroxaban	Apixaban	Endoxaban	
Therapiedauer	2.0 Jahre (mean)	1.6 Jahre (median)	1.8 Jahre (median)	2.5 Jahre (median)	2.2 Jahre (median)
Anzahl INR-Messungen bei Marcumar-Patienten	mind. 12/Jahr	*Keine Daten*	mind. 12/Jahr	mind. 12/Jahr	8/Jahr (median)
Time in Therapeutic Range (TTR)	**64%** (mean)	**55%** (mean), **58%** (median)	**62%** (mean), **66%** (median)	**64.9%** (mean), **68%** (median)	**68%** (mean), **75%** (median)

MC 3.0 - mit FIRE die Performance abbilden

Jahresre

Basierend auf den erarbeiteten Indikatoren

Arzt:
GLN: 7
Netzwerk: m

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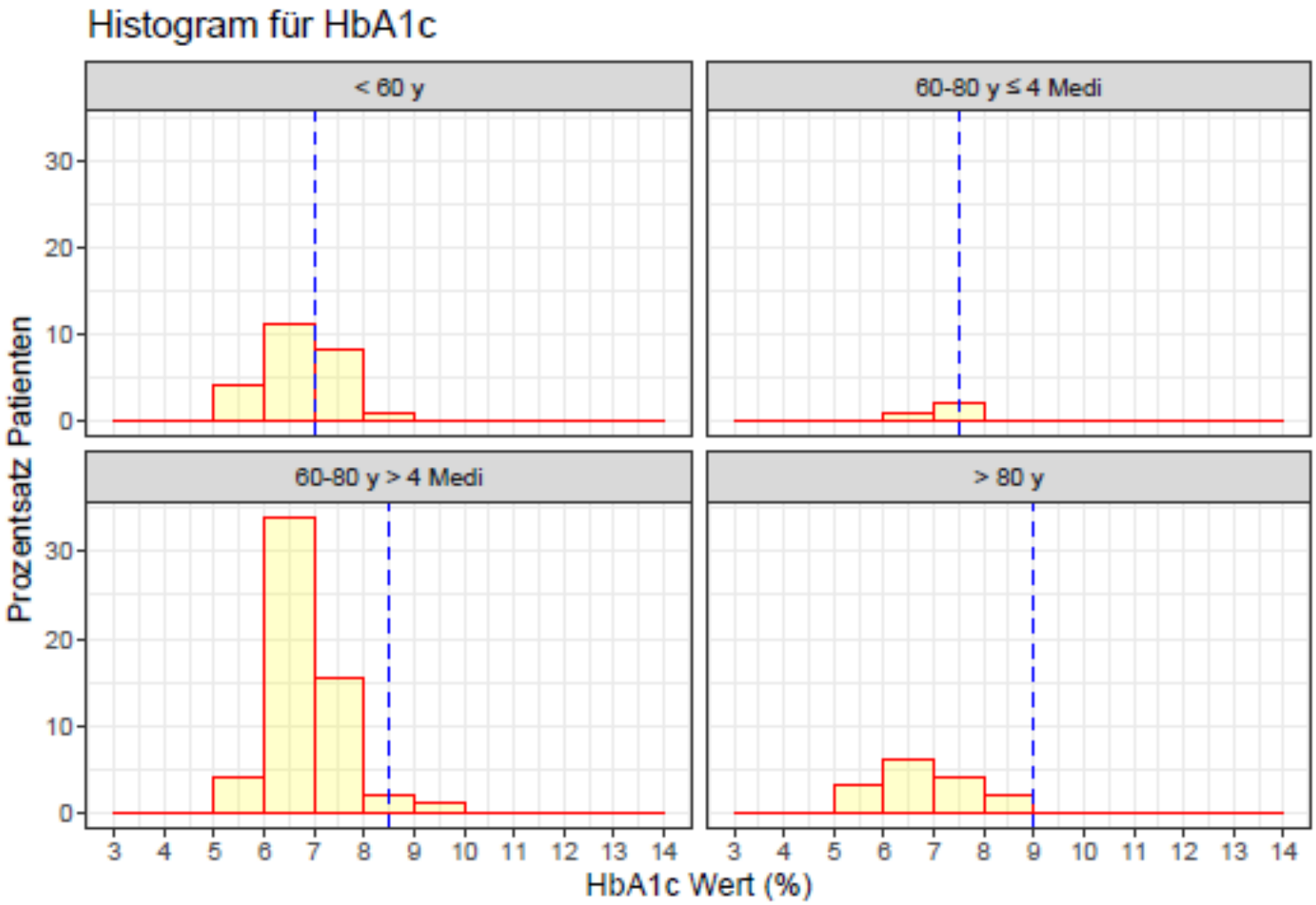

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Abbildung 2: Verteilung der mittleren HbA1c-Werte der Diabetes-Patienten (Indikator D1.3)

Zusammenfassung

Das Konzept des «Value based Health Care» zielt auf den effektiven Nettonutzen einer medizinischen Massnahme für den Patienten in Relation zu den Kosten und entspricht damit der typisch hausärztlichen Perspektive

Sämtliche bisherigen Daten attestieren dem Managed Care in der Schweiz einen positiven Effekt auf (zum Teil patientenrelevante) Outcomes und Kosten

Versicherer gehen dazu über die «Performance» der Ärzte(netzwerke) kritisch zu hinterfragen, ihre Ansätze zur Erfassung haben aber (systembedingte) Schwächen

FIRE ermöglicht eine valide und detaillierte Erfassung der hausärztlichen Leistung, Incentivierungen können eine gezielte Steuerungswirkung entfalten

Innovative Ärztenetzwerke sind hier wesentliche Protagonisten, praktizieren von jeher Value based Health Care und treiben diese Entwicklung weiter voran.