



Universität
Zürich^{UZH}

Versorgung von Menschen mit chronischen Krankheiten

Wer mach was mit wem?

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Versorgung chronisch Kranker - wo stehen wir?

Wer macht was - wie ist die Evidenz?

Woher nehmen – eine Ressourcenfrage?

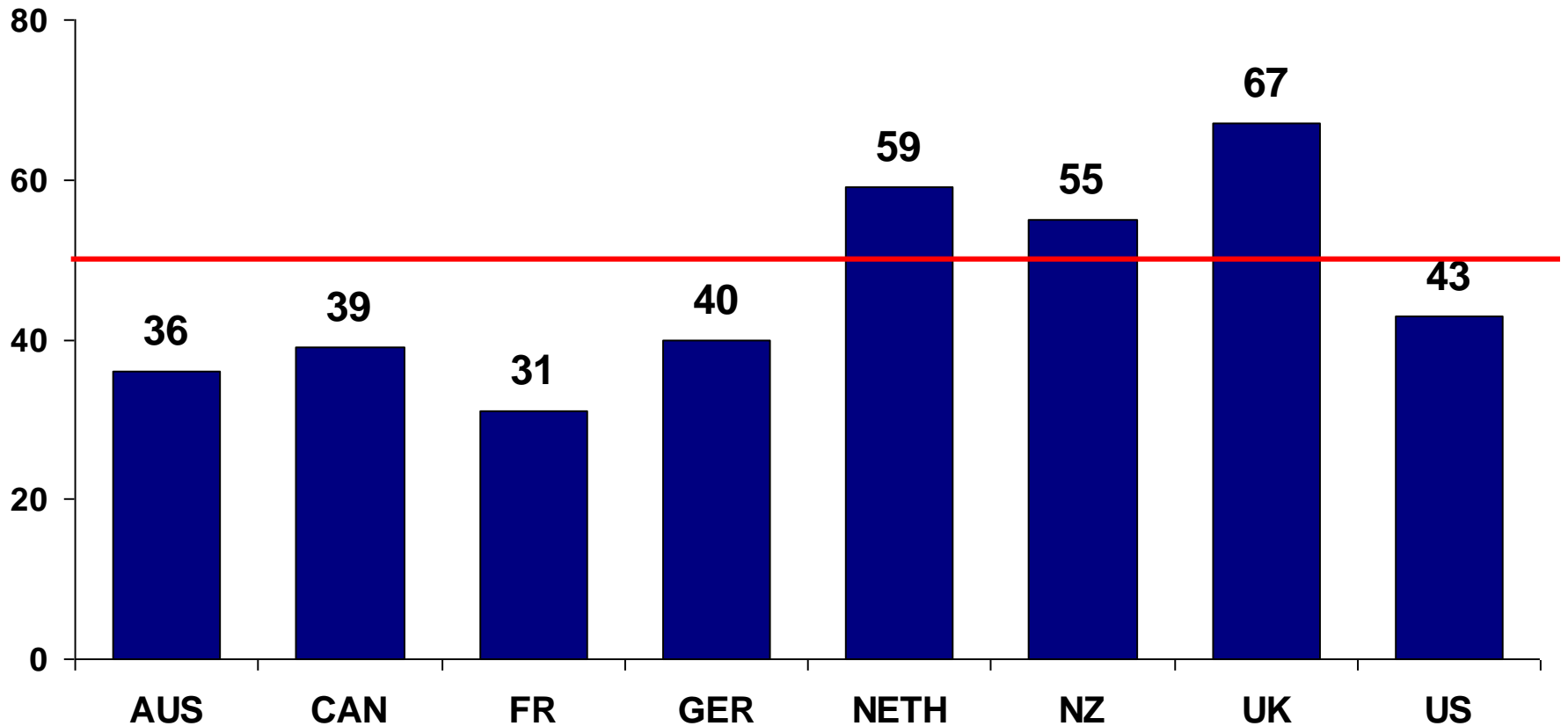
Ausblick



Diabetics who received recommended preventive care services

Base: Adults with diabetes

Percent received all four diabetes services*



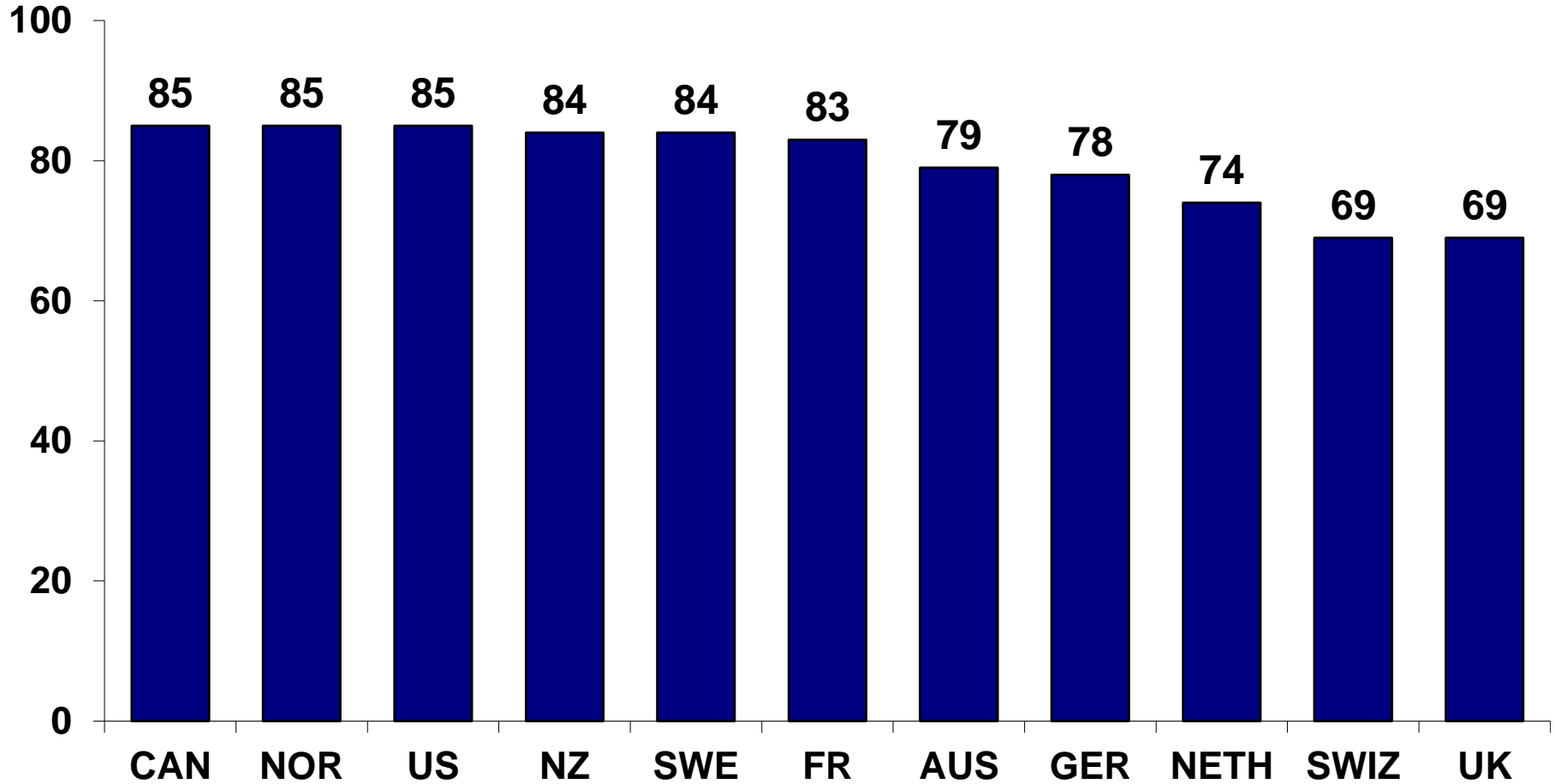
* Hemoglobin A1c checked in past six months; feet examined for sores or irritations in past year; eye exam for diabetes in past year; and cholesterol checked in past year.



Blood Pressure Under Control Last Time Checked

Has Heart Disease, Hypertension, and/or Diabetes

Percent yes, under control

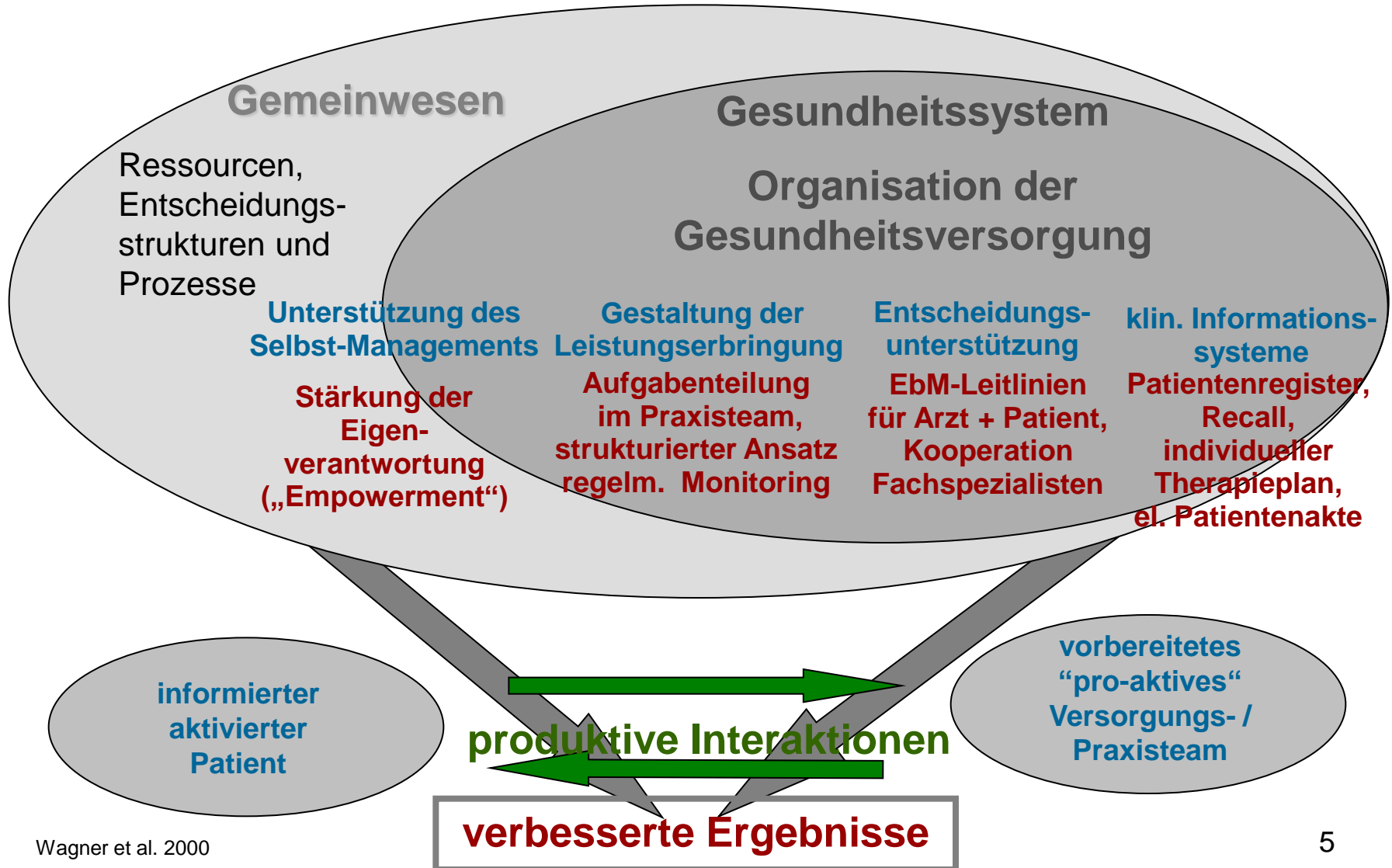


Base: Has heart disease, hypertension, and/or diabetes and blood pressure checked in past year.

Source: 2011 Commonwealth Fund International Health Policy Survey of Sicker Adults in Eleven Countries.

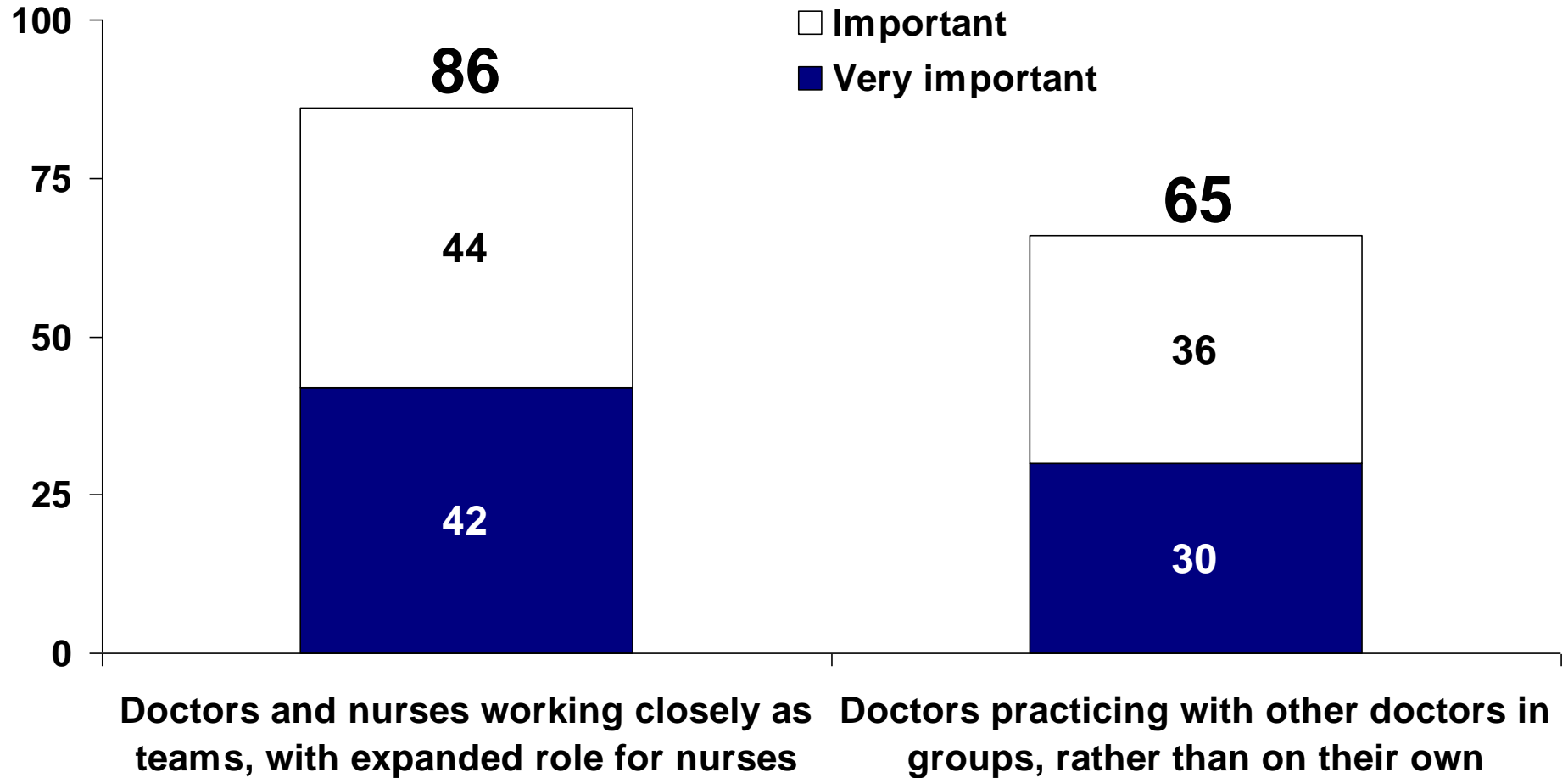


Chronic Care-Model (CCM)





Percent reporting it is very important/important for improving patient care

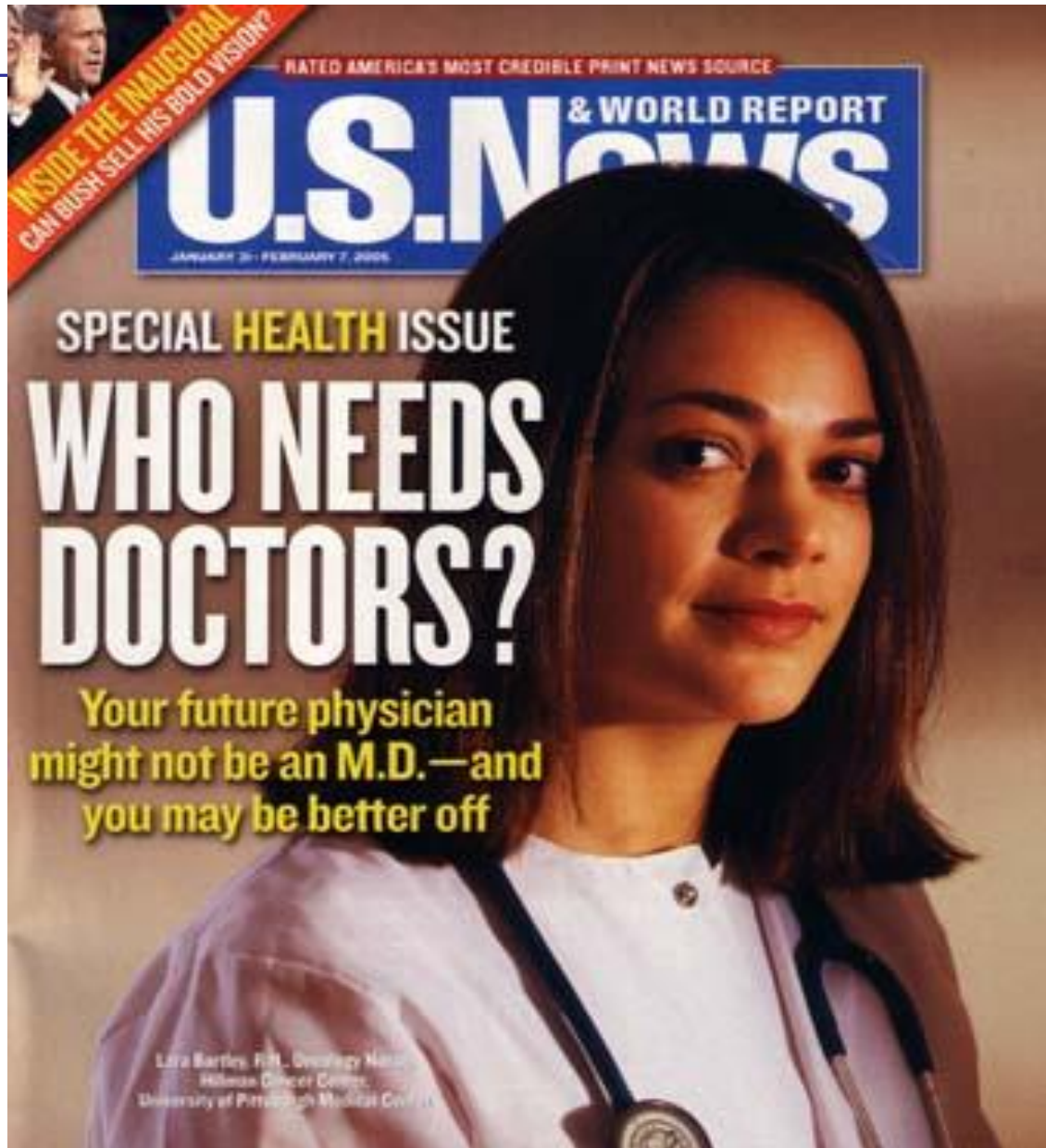


Note: Subgroups may not sum to total because of rounding.

Source: Commonwealth Fund Survey of Public Views of the U.S. Health Care System, 2011.



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Evidenz – substitution of GPs by nurses

1966 to 2002: 4.253 articles were screened of which 25 articles, relating to **16** studies

.... **many studies had methodological limitations**, and patient follow-up was generally 12 months or less.

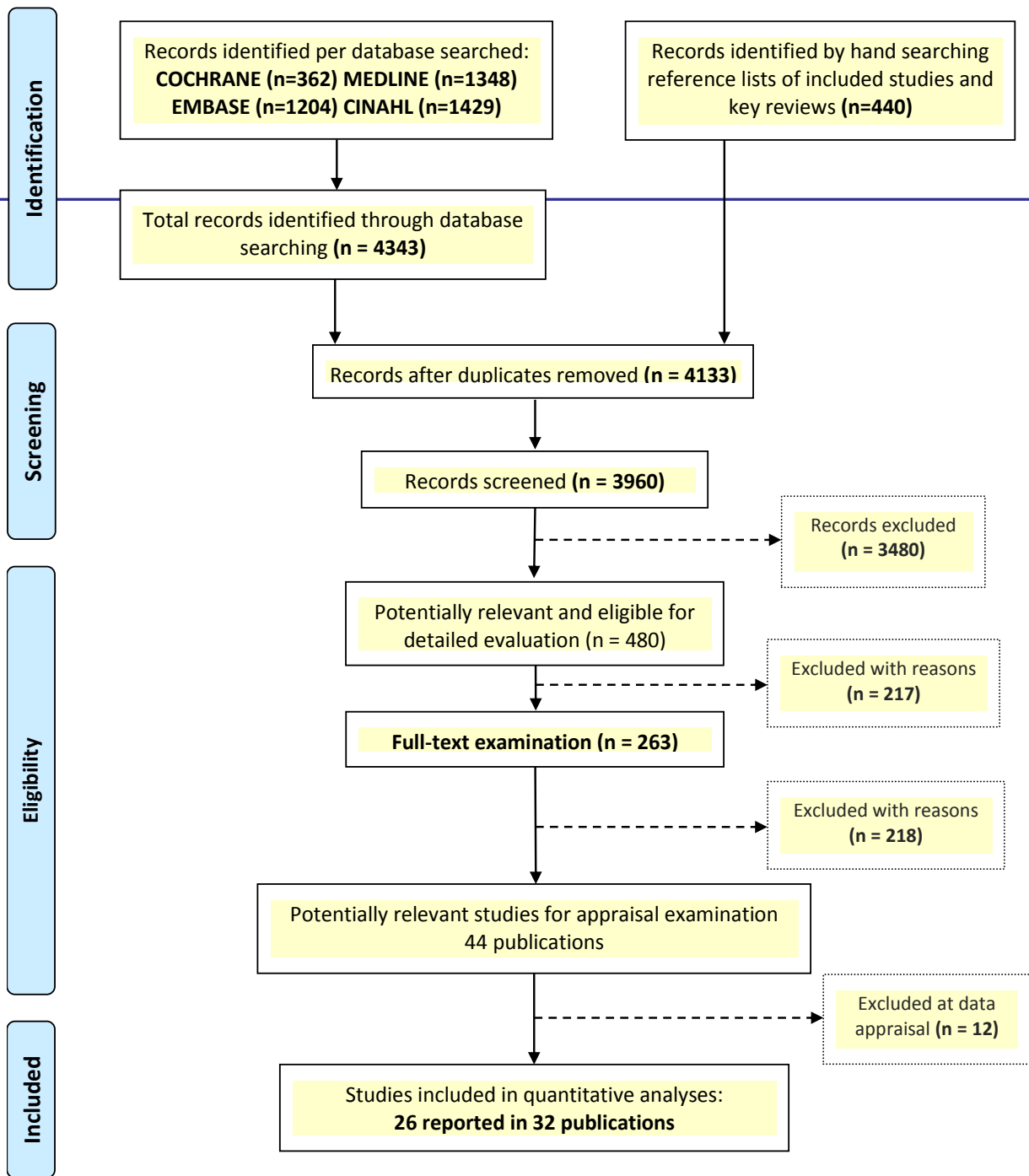
...Doctors' workload may **remain unchanged** either because nurses are deployed to meet previously unmet patient need or because nurses generate demand for care where previously there was none. **Savings** in cost depend on the magnitude of the salary differential between doctors and nurses, and **may be offset by the lower productivity of nurses** compared to doctors.





Einschlusskriterien:

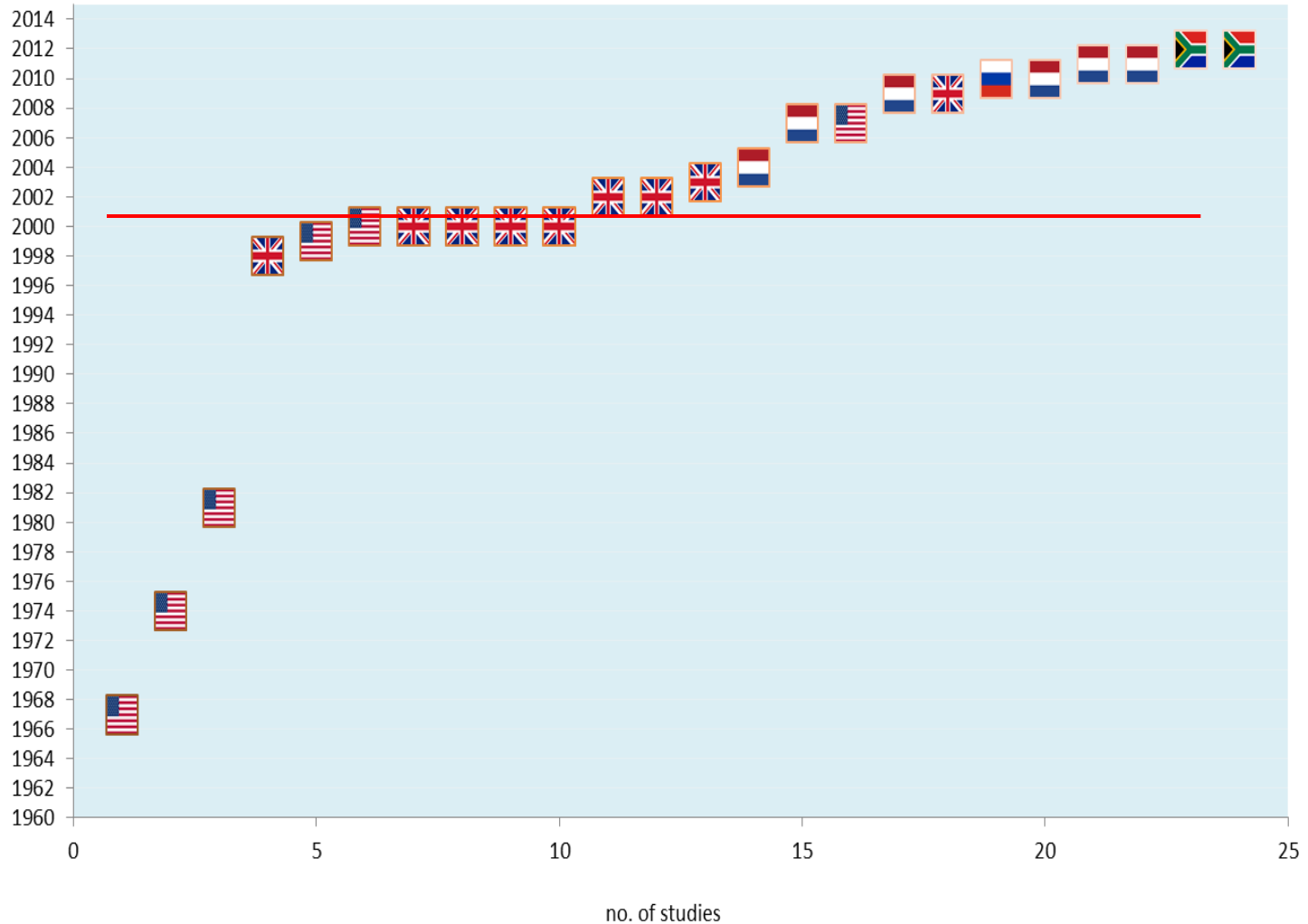
- Vergleich Pflegekräfte mit Hausärzten, Pädiatern oder Geriatern
- Tätigkeit der Pflegekraft entspricht der des Arztes (kein zusätzlicher Service)
- Management der Patienten delegiert oder in Eigenverantwortung
- Alle Altersgruppen und soziale Schichten
- Jede Art von Kontakt, (Erstkontakt und/oder kontinuierliche Versorgung)
- Jede Art von Behandlungsanlass/Erkrankung
- Beschränkt auf “primary care”, keine Spitalambulanz, Poliklinik, etc.





Studies by publication date and country

- USA 1 (Lewis, 1967)
- USA 2 (Flynn, 1974)
- USA 3 (Winter, 1981)
- UK 1 (Campbell, 1998)
- USA 4 (Hemani, 1999)
- USA 5 (Munding, 2000)
- UK 5 (Kernick, 2000)
- UK 4 (Kinnersley, 2000)
- UK 3 (Venning, 2000)
- UK 2 (Shum, 2000)
- UK 7 (Jarman, 2002)
- UK 6 (Kernick, 2002)
- UK 8 (Denver, 2003)
- NDL 1 (Hesselink, 2004)
- NDL 2 (Du Moulin, 2007)
- USA 6 (Hiss, 2007)
- NDL 3 (Dierick-VanDaele, 2009)
- UK 9 (Chan, 2009)
- RUS (Andryukhin, 2010)
- NDL 4 (Voogdt-Pruis, 2010)
- NDL 6 (Houweling, 2011)
- NDL 5 (Kuethe, 2011)
- ZAF 2 (Fairall, 2012)
- ZAF 1 (Fairall, 2012)





Study or Subgroup	Nurses		Doctors		Std. Mean Difference			Std. Mean Difference IV, Fixed, 95% CI
	Mean	SD	Total	Mean	SD	Total	Weight	
1.1.1 all trials								
Winter, 1981 (1)	94.78	9	25	74.03	17	25	0.7%	1.50 [0.87, 2.14]
DuMoulin, 2007 (2)	8.7	1	35	7.5	1	10	0.5%	1.18 [0.43, 1.93]
Kinnersley, 2000 (3)	77.9	9.5	334	74	9.2	596	15.0%	0.42 [0.28, 0.55]
Venning, 2000 (4)	4.4	0.5	608	4.22	0.5	571	20.7%	0.36 [0.24, 0.47]
Shum, 2000 (5)	78.6	16	635	76.4	17.8	657	23.0%	0.13 [0.02, 0.24]
Dierick-van Daele, 2009 (6)	8.19	1.18	683	8.2	1.26	609	23.0%	-0.01 [-0.12, 0.10]
Mundinger, 2000 (7)	4.45	0.89	644	4.46	0.89	389	17.3%	-0.01 [-0.14, 0.11]
Subtotal (95% CI)			2964			2857	100.0%	0.18 [0.13, 0.23]

Heterogeneity: $\text{Chi}^2 = 65.97$, $\text{df} = 6$ ($P < 0.00001$); $I^2 = 91\%$

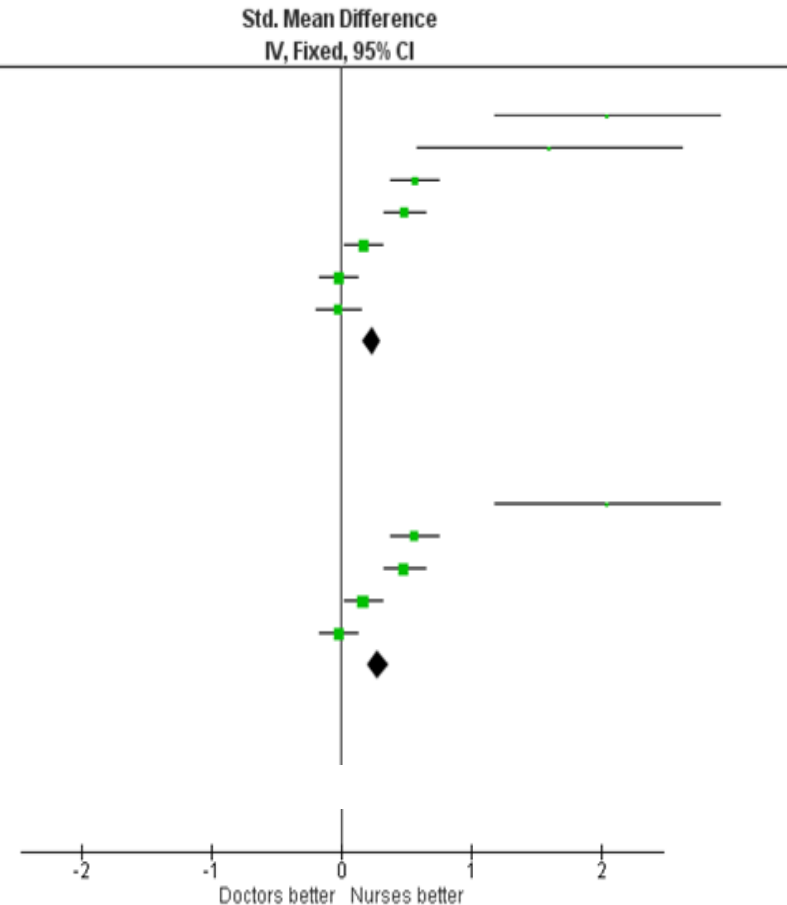
Test for overall effect: $Z = 6.70$ ($P < 0.00001$)

1.1.2 individual (single) consultation type

Winter, 1981 (8)	94.78	9	25	74.03	17	25	0.8%	1.50 [0.87, 2.14]
Kinnersley, 2000 (9)	77.9	9.5	334	74	9.2	596	18.2%	0.42 [0.28, 0.55]
Venning, 2000 (10)	4.4	0.5	608	4.22	0.5	571	25.1%	0.36 [0.24, 0.47]
Shum, 2000 (11)	78.6	16	635	76.4	17.8	657	27.9%	0.13 [0.02, 0.24]
Dierick-van Daele, 2009 (12)	8.19	1.18	683	8.2	1.26	609	27.9%	-0.01 [-0.12, 0.10]
Subtotal (95% CI)			2285			2458	100.0%	0.21 [0.16, 0.27]

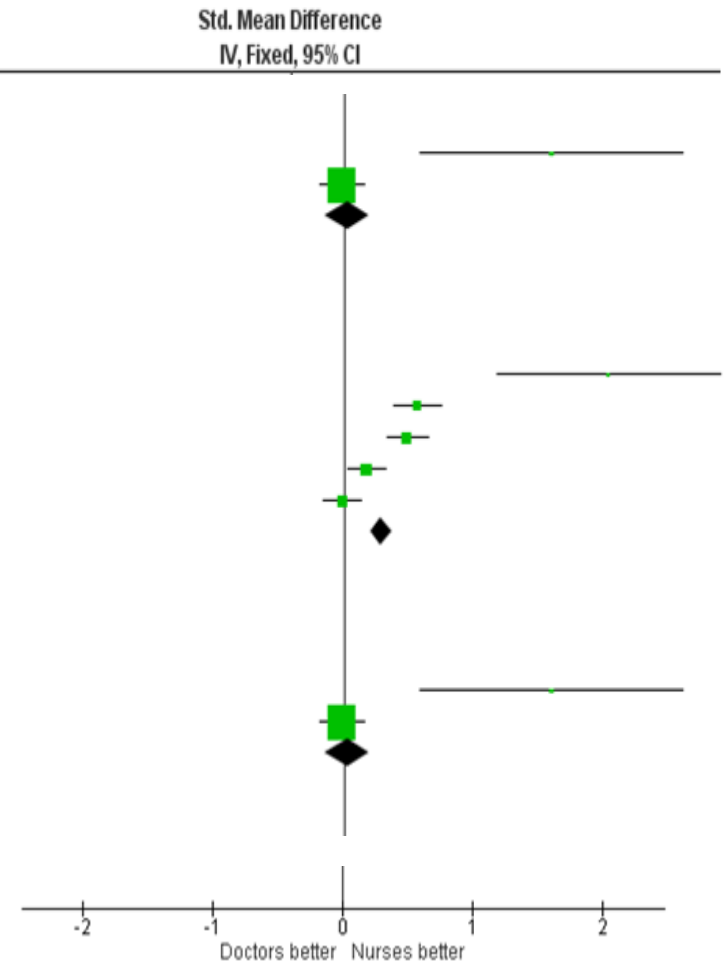
Heterogeneity: $\text{Chi}^2 = 48.99$, $\text{df} = 4$ ($P < 0.00001$); $I^2 = 92\%$

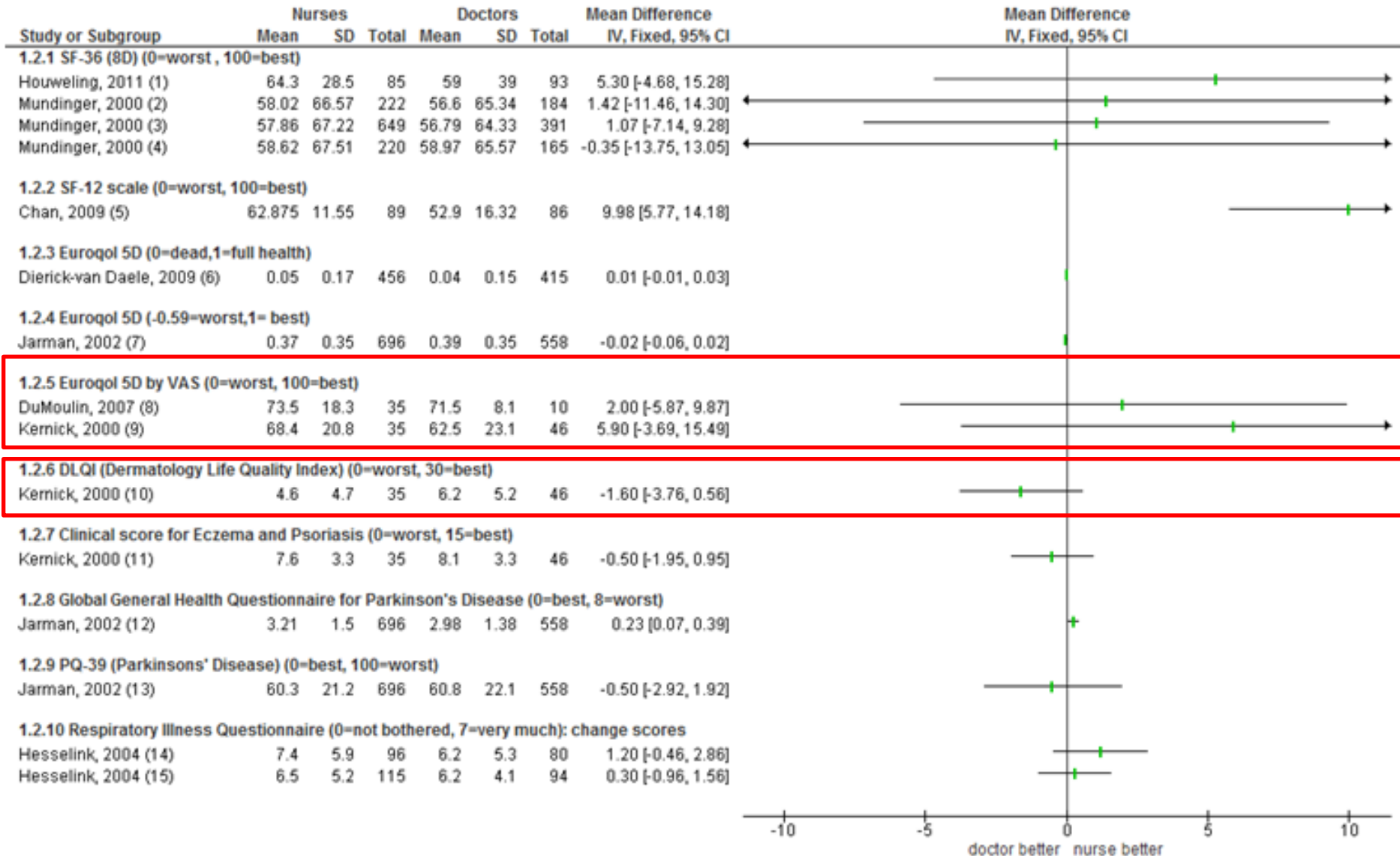
Test for overall effect: $Z = 7.23$ ($P < 0.00001$)



Patientenzufriedenheit

Study or Subgroup	Nurses			Doctors			Weight	Std. Mean Difference IV, Fixed, 95% CI
	Mean	SD	Total	Mean	SD	Total		
1.1.3 care over time (several consultations)								
DuMoulin, 2007 (13)	8.7	1	35	7.5	1	10	2.8%	1.18 [0.43, 1.93]
Munding, 2000 (14)	4.45	0.89	644	4.46	0.89	389	97.2%	-0.01 [-0.14, 0.11]
Subtotal (95% CI)			679			399	100.0%	0.02 [-0.10, 0.15]
Heterogeneity: Chi ² = 9.47, df = 1 (P = 0.002); I ² = 89%								
Test for overall effect: Z = 0.34 (P = 0.73)								
1.1.4 scores taken at <6months								
Winter, 1981 (15)	94.78	9	25	74.03	17	25	0.8%	1.50 [0.87, 2.14]
Kinnersley, 2000 (16)	77.9	9.5	334	74	9.2	596	18.2%	0.42 [0.28, 0.55]
Venning, 2000 (17)	4.4	0.5	608	4.22	0.5	571	25.1%	0.36 [0.24, 0.47]
Shum, 2000 (18)	78.6	16	635	76.4	17.8	657	27.9%	0.13 [0.02, 0.24]
Dierick-van Daele, 2009 (19)	8.19	1.18	683	8.2	1.26	609	27.9%	-0.01 [-0.12, 0.10]
Subtotal (95% CI)			2285			2458	100.0%	0.21 [0.16, 0.27]
Heterogeneity: Chi ² = 48.99, df = 4 (P < 0.00001); I ² = 92%								
Test for overall effect: Z = 7.23 (P < 0.00001)								
1.1.5 scores taken at ≥6m								
DuMoulin, 2007 (20)	8.7	1	35	7.5	1	10	2.8%	1.18 [0.43, 1.93]
Munding, 2000 (21)	4.45	0.89	644	4.46	0.89	389	97.2%	-0.01 [-0.14, 0.11]
Subtotal (95% CI)			679			399	100.0%	0.02 [-0.10, 0.15]
Heterogeneity: Chi ² = 9.47, df = 1 (P = 0.002); I ² = 89%								
Test for overall effect: Z = 0.34 (P = 0.73)								





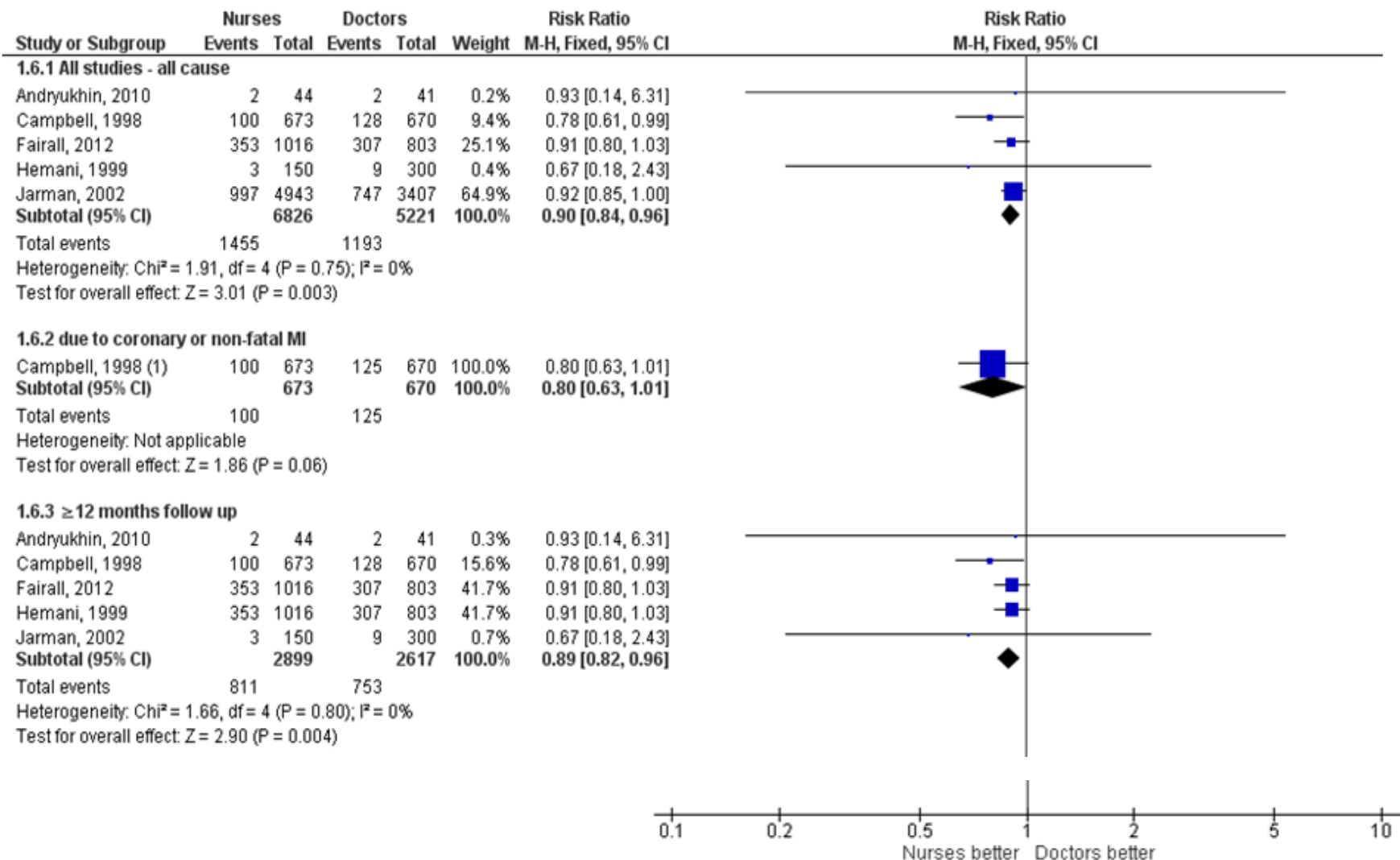
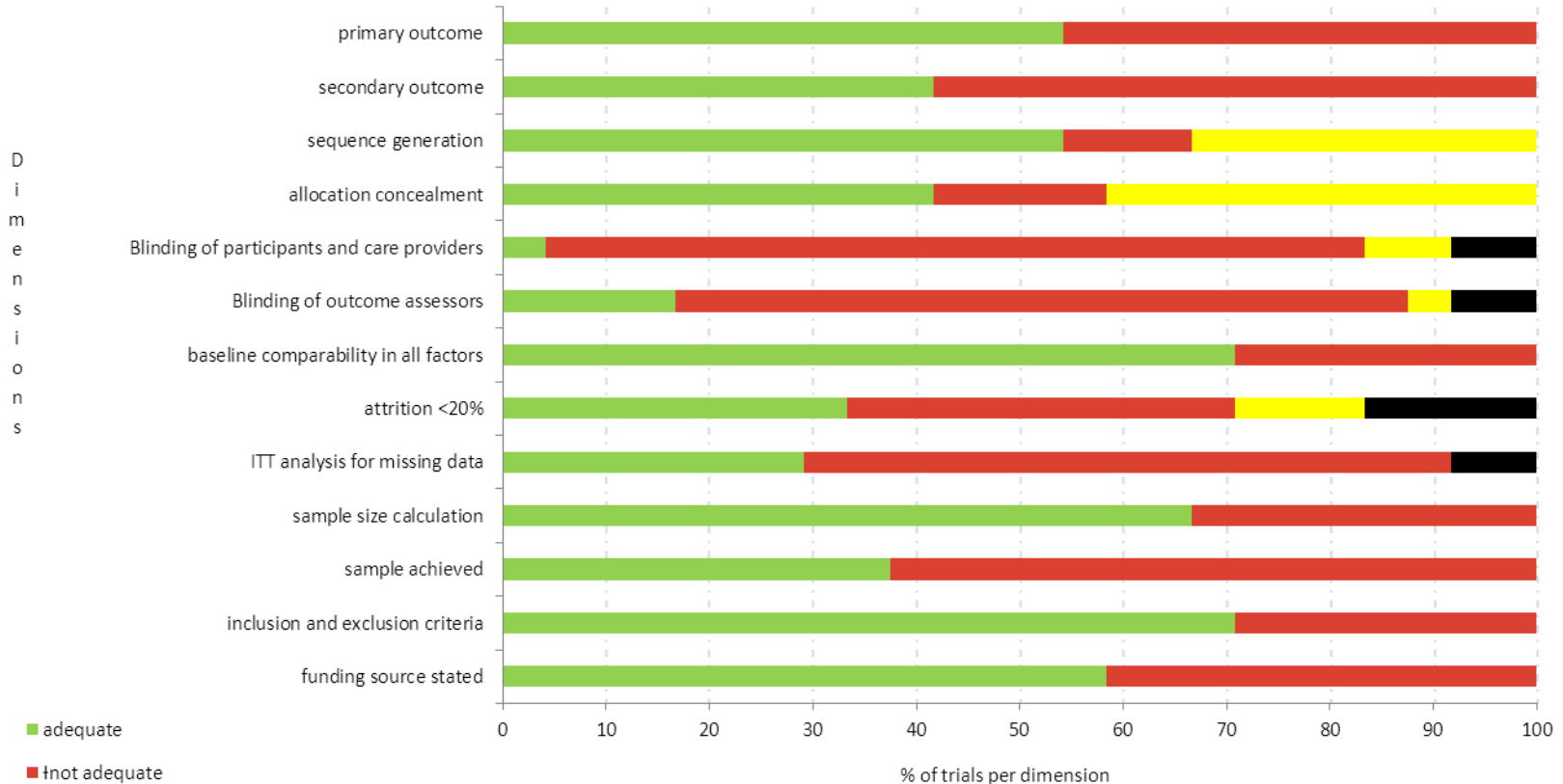




Figure 2 Risk of bias assessment for the included trials



†for baseline comparability: no=studies were not comparable in all assessed factors at baseline; for missing data: no=complete case analysis; for inclusion and exclusion criteria: no=exclusion criteria not reported

*for blinding: other=either patients or clinicians but not both parties were blinded; for blinding of outcome assessors: no=assessors blinded for some outcomes; for attrition: other= >20% attrition in one arm; for ITT: other= ITT for some outcomes and complete case analysis for other



Wer – Nurse oder MPA ?

Studie

Effekt

PraxArt:

Chronic care for oosteroarthritis patients

+

Arthritis Rheum. 2007 Dec 15;57(8):1390-7.

PRoMPT:

Primary care Monitoring for depressive Patients Trial

+

Ann Intern Med. 2009 Sep 15;151(6):369-78.

CARAT:

+

Cardiovasc Diabetol. 2010 Jun 15;9:23. (protocol)

CAMON:

Case management in oncology rehabilitation

-

Trials. 2011 Apr 28;12:103.

CHARMED:

Chronic care for age-related macular degeneration

?

Trials. 2011 Oct 11;12:221.

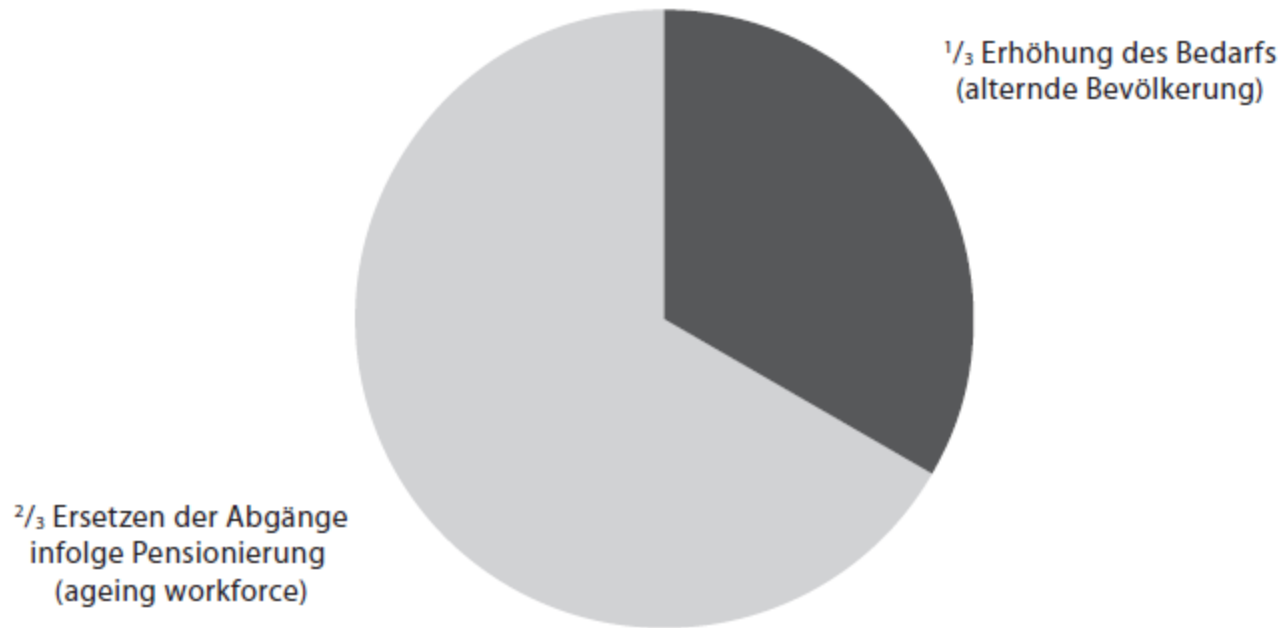
Chronic Care for chronic obstructive lung disease

CAROL

Teammitglied: MPA Pflegekraft

Woher nehmen?

Figur 7. Bis 2020 sind aus zwei Gründen 120'000 bis 190'000 Personen zu rekrutieren:

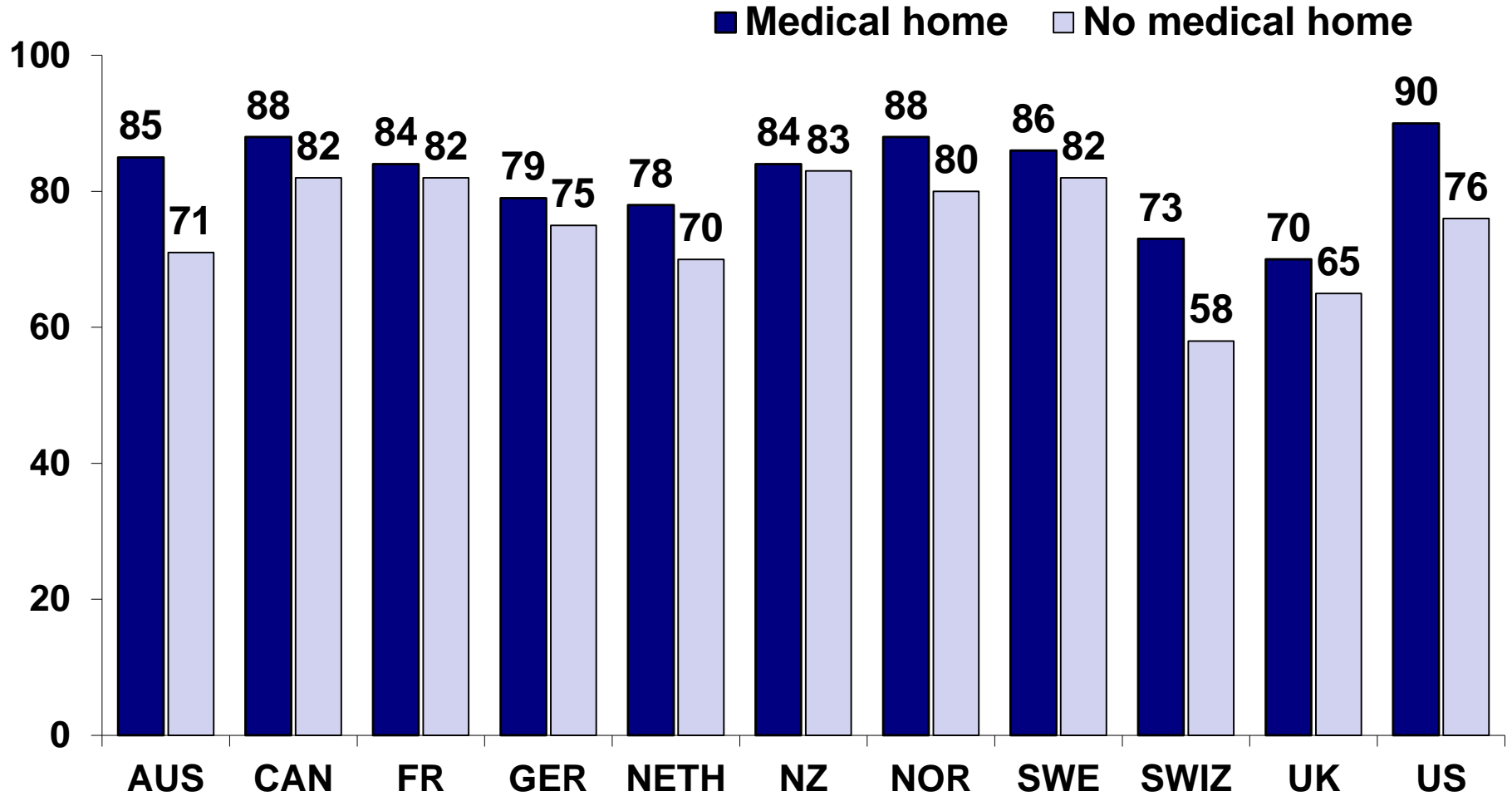




Blood Pressure Under Control Last Time Checked, by Medical Home

Has Heart Disease, Hypertension, and/or Diabetes

Percent

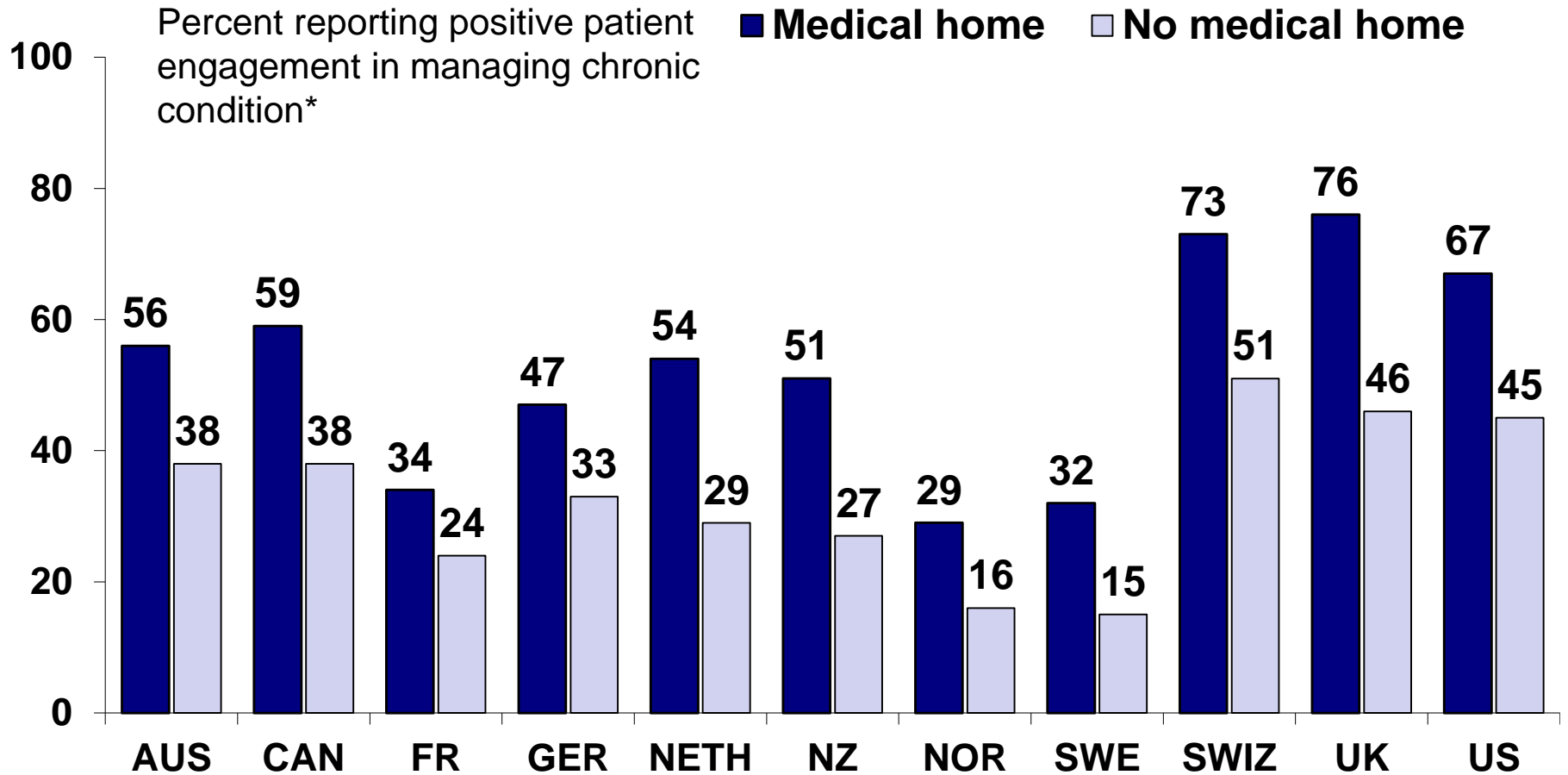


Base: Has heart disease, hypertension, and/or diabetes and blood pressure checked in past year.

Source: 2011 Commonwealth Fund International Health Policy Survey of Sicker Adults in Eleven Countries.



Patient Engagement in Care Management for Chronic Condition, by Medical Home



* Health care professional in past year has: 1) discussed your main goals/priorities in care for condition; 2) helped make treatment plan you could carry out in daily life; and 3) given clear instructions on symptoms and when to seek care.

Base: Has chronic condition.

Source: 2011 Commonwealth Fund International Health Policy Survey of Sicker Adults in Eleven Countries.



Wer macht was mit wem?

Die Evidenz im Hinblick auf einen optimalen skillmix ist unzureichend – quantitativ wie qualitativ

Valide ökonomische Evaluationen fehlen

Dennoch: es gibt Hinweise auf positive Effekte des Skillmix. Wahrscheinlich sind mehr „Qualität“ aber keine Kostenersparnis

Daher braucht es methodisch gute Studien im Schweizer Setting

Für die erfolgreiche Implementierung braucht es eine adäquate Strategie