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Figure 1a: CKD stage 1-5 prevalence (95%CI) in the adult population, IDMS studies, overall population.

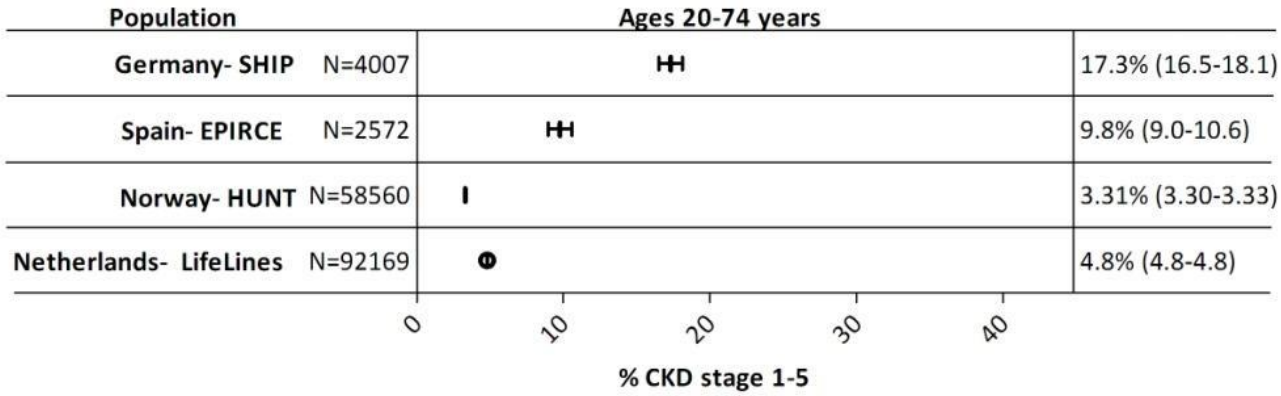
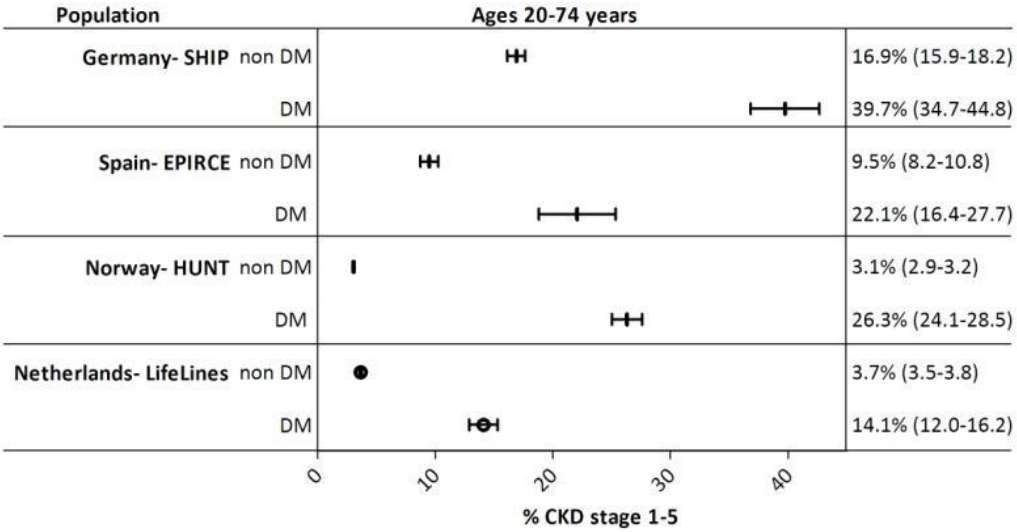


Figure 1b: Prevalence of CKD stage 1-5 in age group 20-74 years, IDMS studies, by diabetic status.



The adult population was defined as subjects aged 20 to 74 years. Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. DM = diabetes mellitus.

Figure 1c: Prevalence of CKD stage 1-5 in age group 20-74 years, IDMS studies, by hypertensive status.

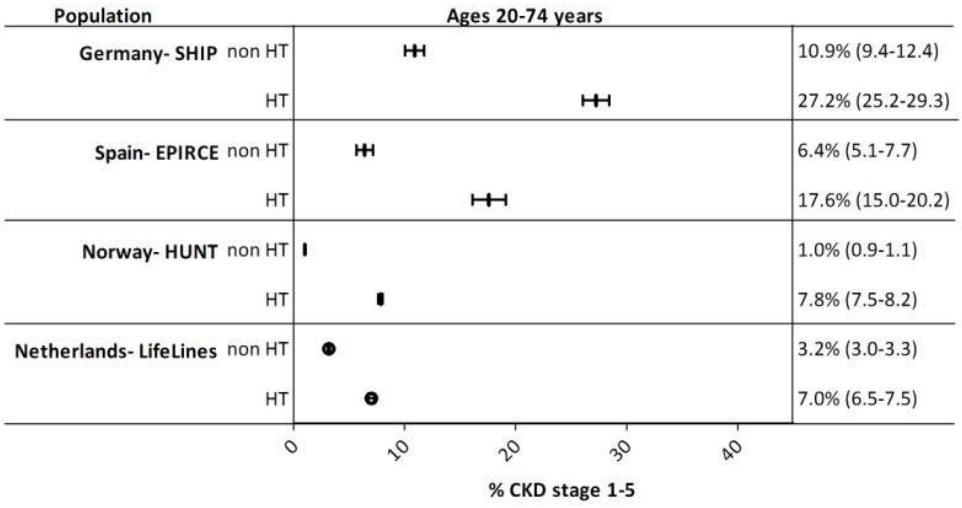
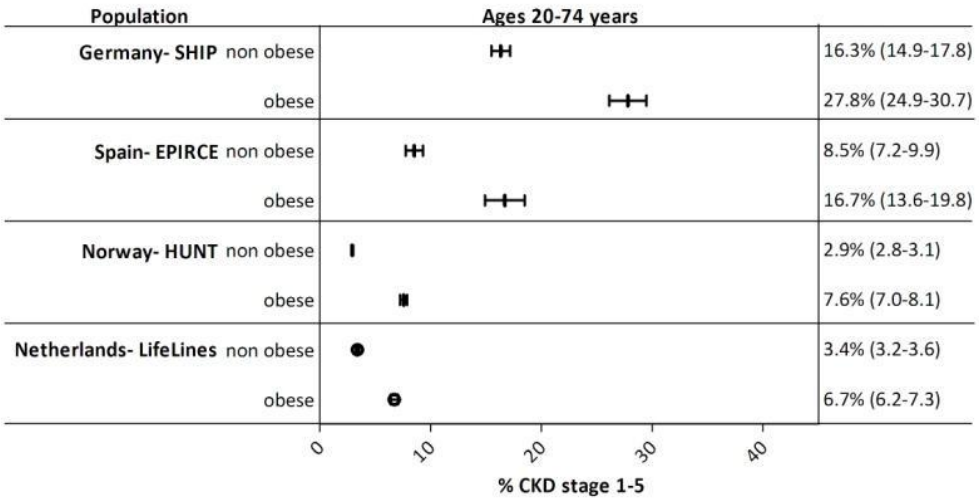


Figure 1d: Prevalence of CKD stage 1-5 in age group 20-74 years, non-IDMS studies, by obesity status.



The adult population was defined as subjects aged 20 to 74 years. HT= hypertension.

Figure 1a: CKD stage 1-5 prevalence (95%CI) in the adult population, non-IDMS studies, overall population.

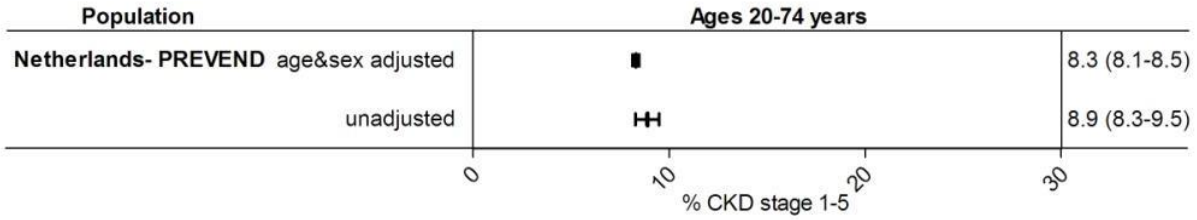


Figure 1b: Prevalence of CKD stage 1-5 in age group 20-74 years, non-IDMS studies, by diabetic status.

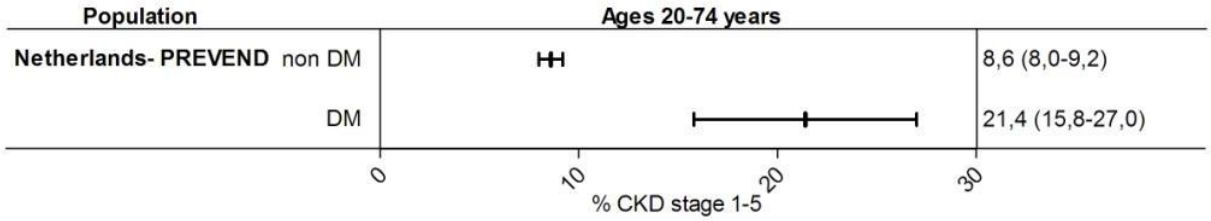


Figure 1c: Prevalence of CKD stage 1-5 in age group 20-74 years, non-IDMS studies, by hypertensive status.

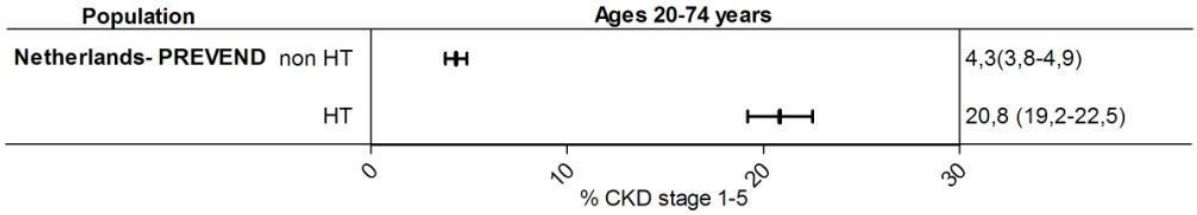
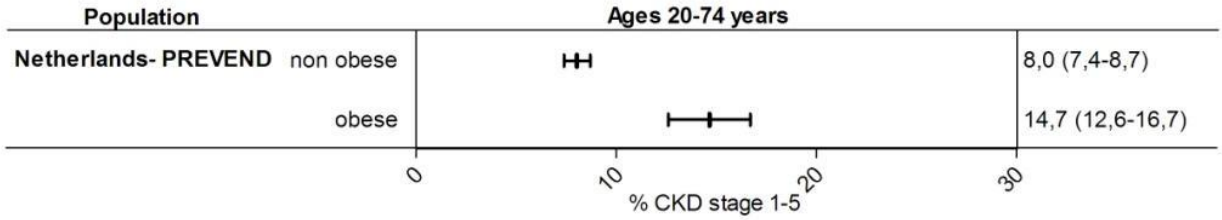


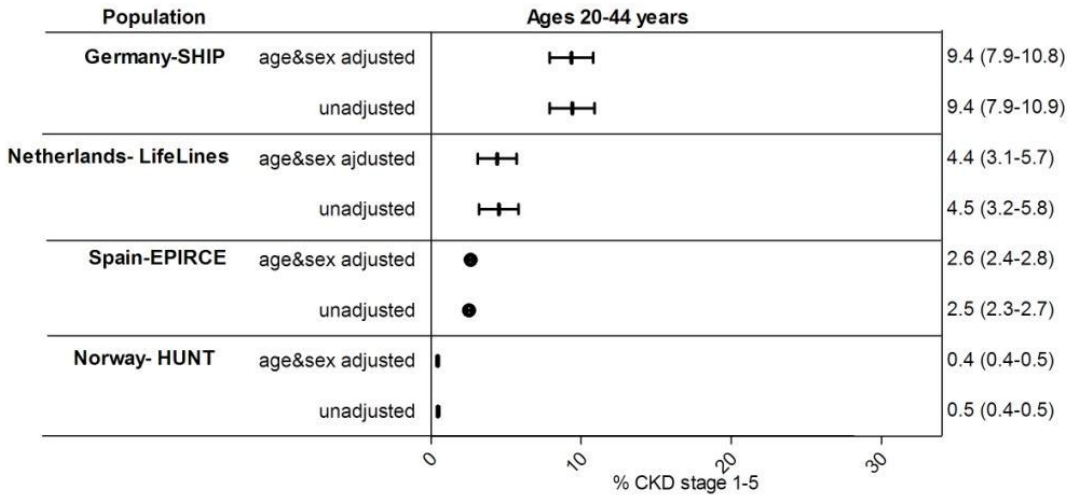
Figure 1d: Prevalence of CKD stage 1-5 in age group 20-74 years, non-IDMS studies, by obesity status.



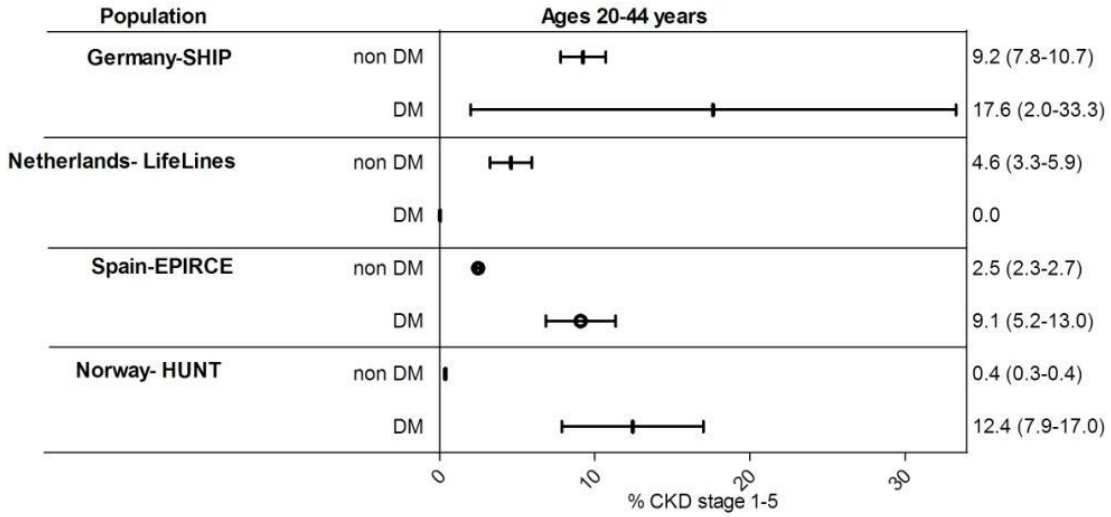
The adult population was defined as subjects aged 20 to 74 years. Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. DM = diabetes mellitus, HT= hypertension. In the PREVEND study all known diabetics were excluded, therefore the prevalence in diabetics is likely an underrepresentation of the true CKD prevalence in diabetics. The PREVEND study used an enzymatic assay to determine serum creatinine.

Figure 2.1: CKD stage 1-5 prevalence (95%CI) in age group 20-44 years, in studies using IDMS traceable creatinine.

a: overall population



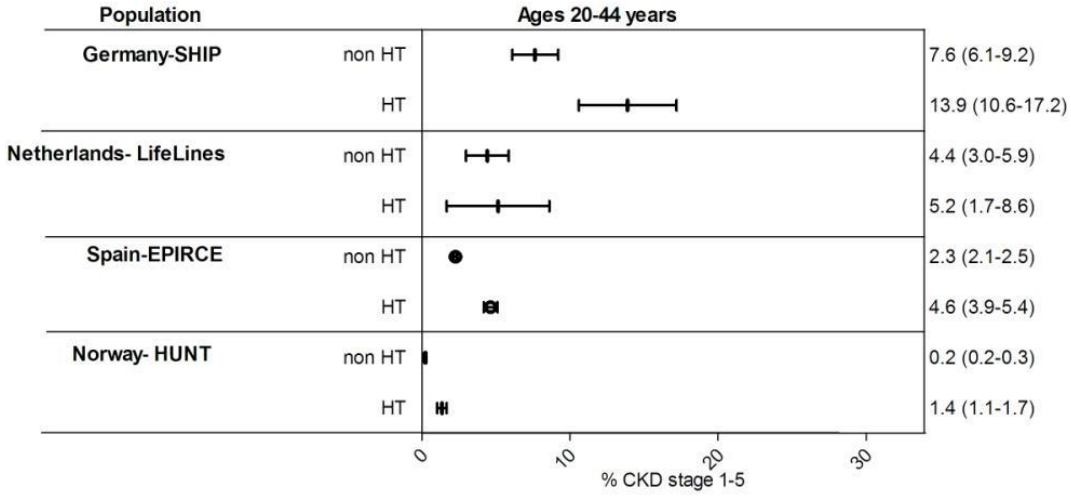
b: by diabetic status



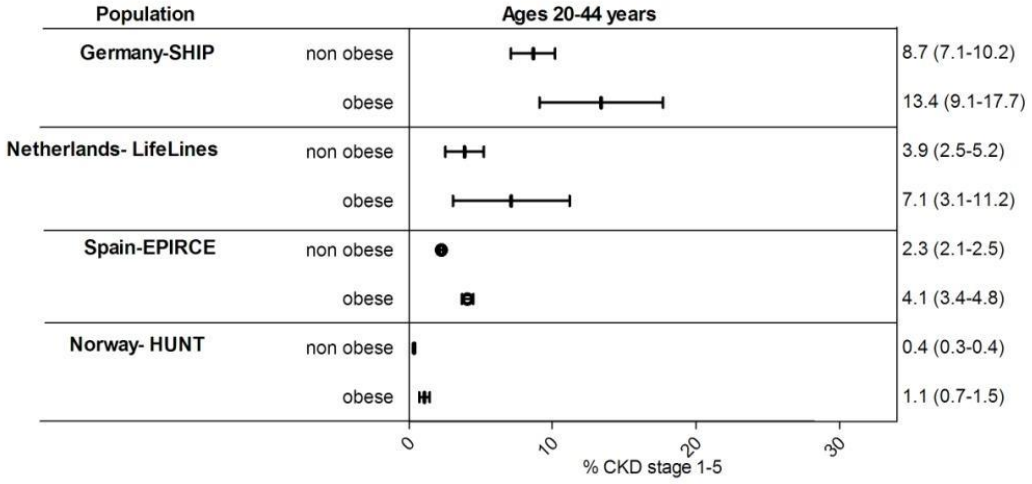
Adjusted prevalence was age and sex adjusted to the EU27 population of 2005.Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus .

Figure 2.1: CKD stage 1-5 prevalence (95%CI) in age group 20-44 years, in studies using IDMS traceable creatinine.

c: by hypertensive status



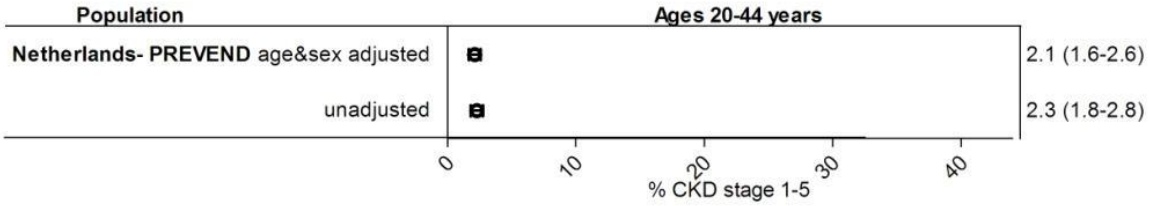
d: by obesity status



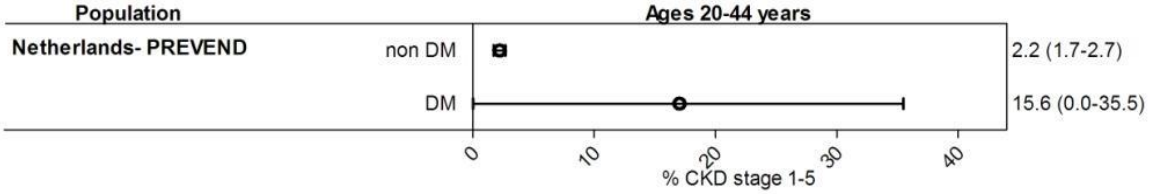
Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension.

Figure 2.1: CKD stage 1-5 prevalence (95%CI) in age group 20-44 years, in studies using non-IDMS traceable creatinine.

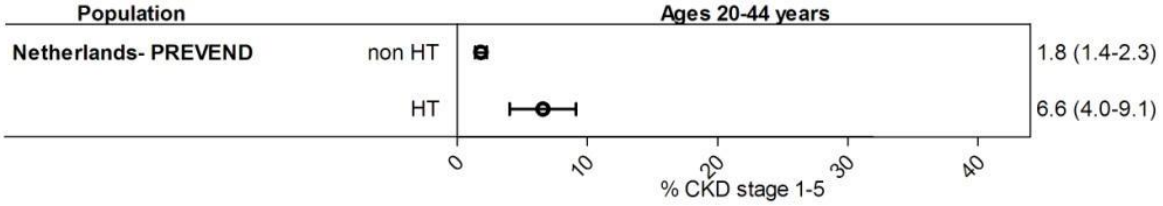
a: overall population



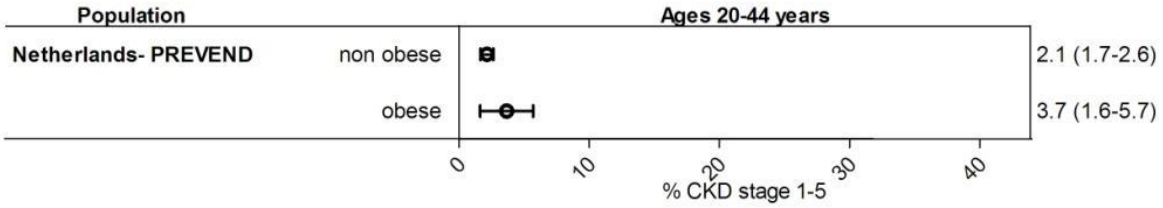
b: by diabetic status



c: by hypertensive status



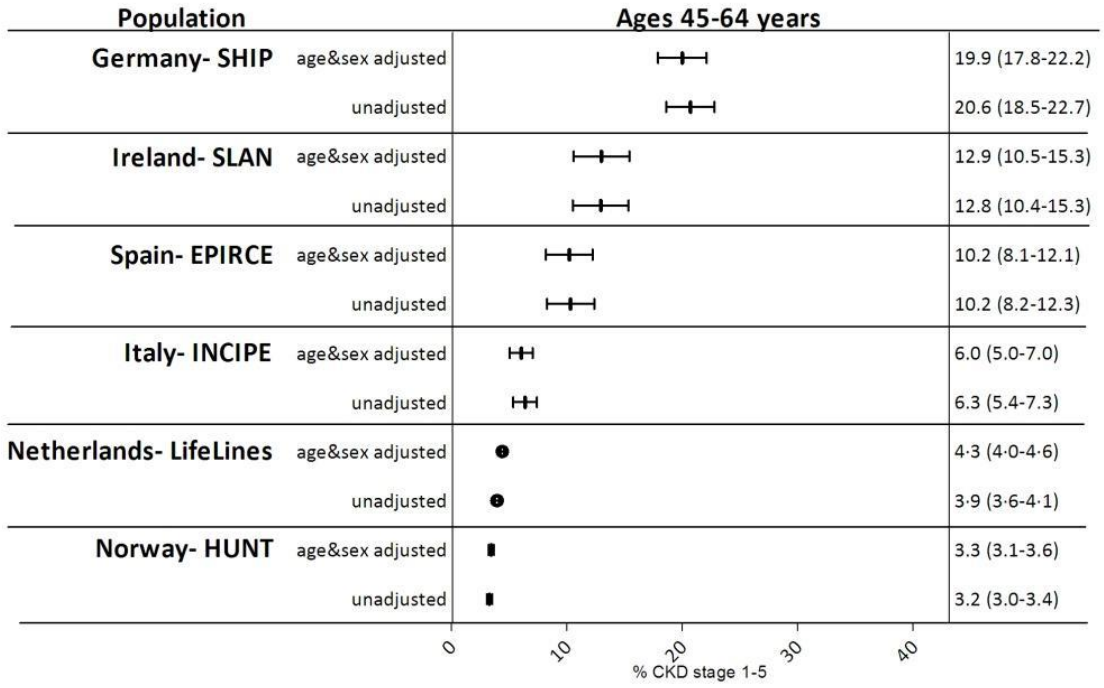
d: by obesity status



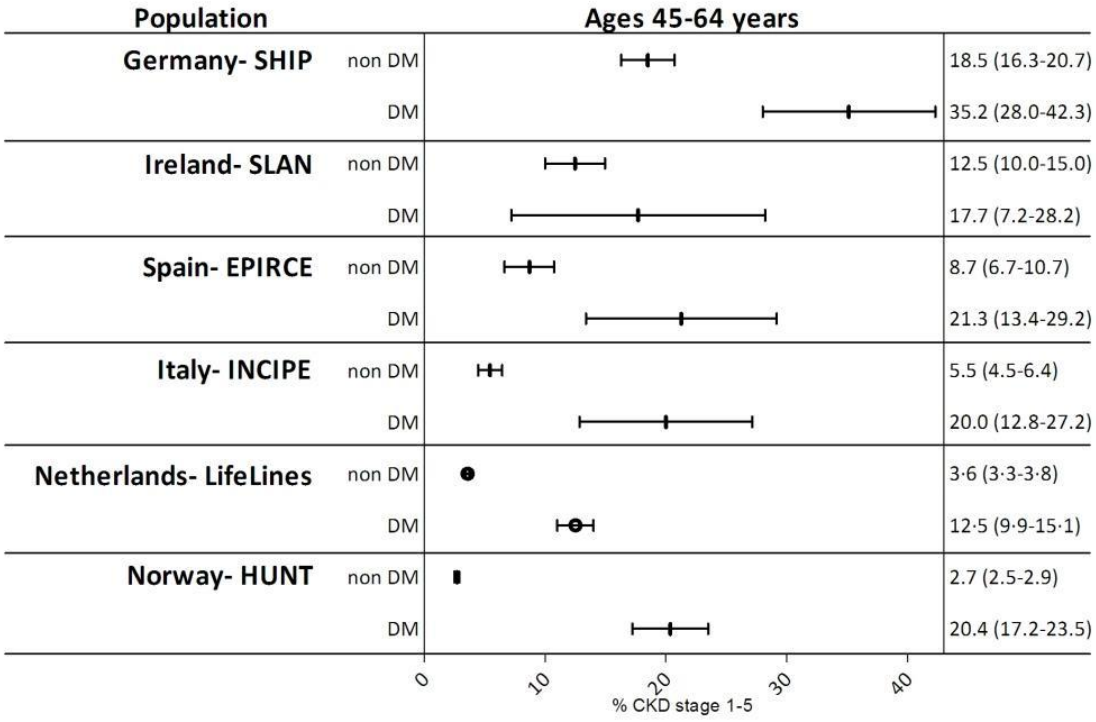
Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Ɵ studies using enzymatic method. DM = diabetes mellitus, HT= hypertension. In the PREVEND study all known diabetics were excluded, therefore the prevalence in diabetics is likely an underrepresentation of the true CKD prevalence in diabetics. The PREVEND study used an enzymatic assay to determine serum creatinine.

Figure 2.2: CKD stage 1-5 prevalence (95%CI) in age group 45-64 years, in studies using IDMS traceable creatinine.

a: overall population



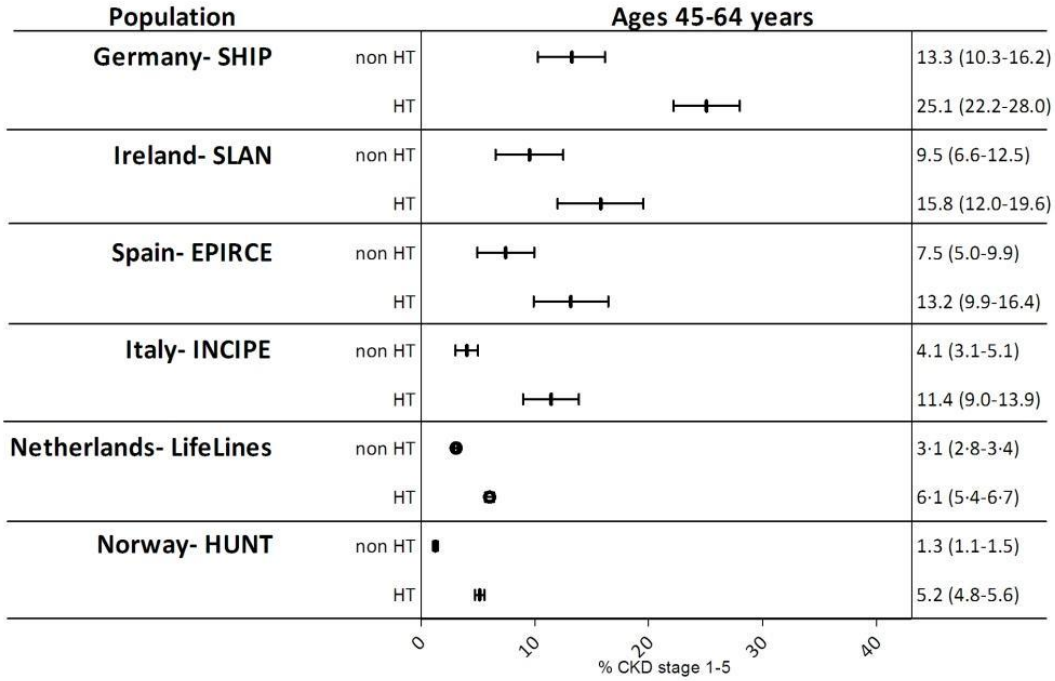
b: by diabetic status



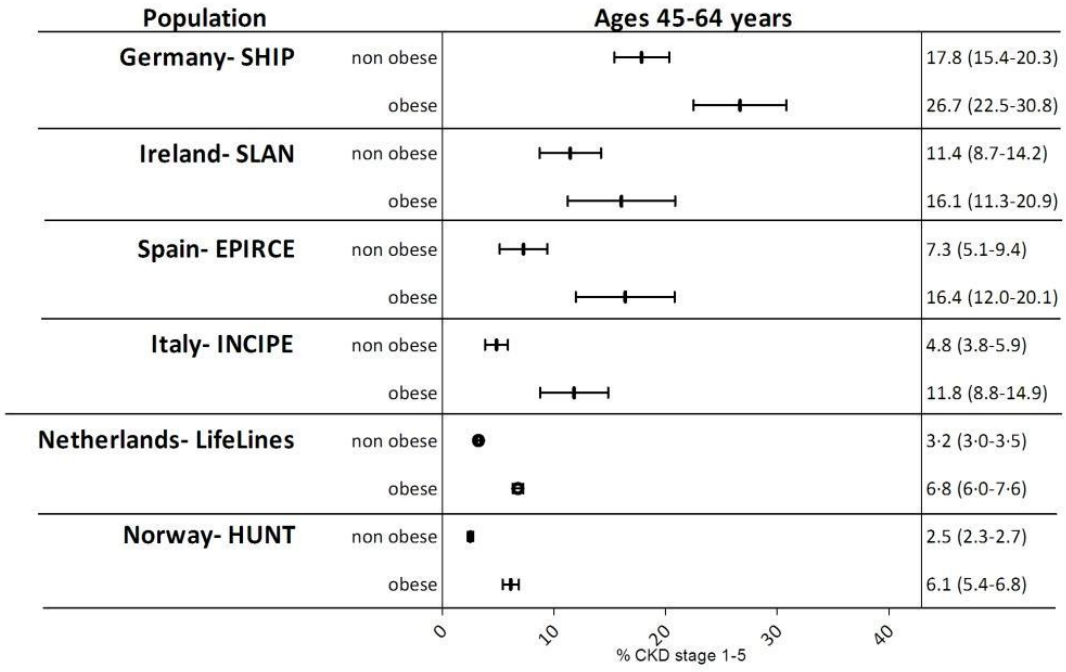
Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus.

Figure 2.2: CKD stage 1-5 prevalence (95%CI) in age group 45-64 years, in studies using IDMS traceable creatinine.

c: by hypertensive status



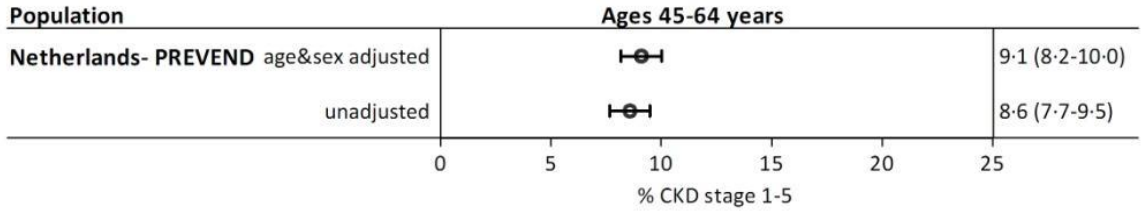
d: by obesity status



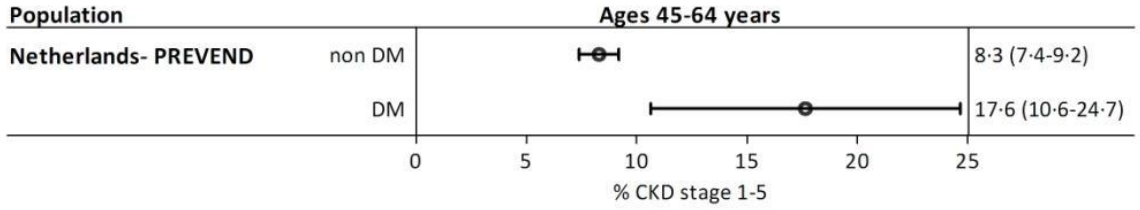
Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension.

Figure 2.2: CKD stage 1-5 prevalence (95%CI) in age group 45-64 years, in studies using non-IDMS traceable creatinine.

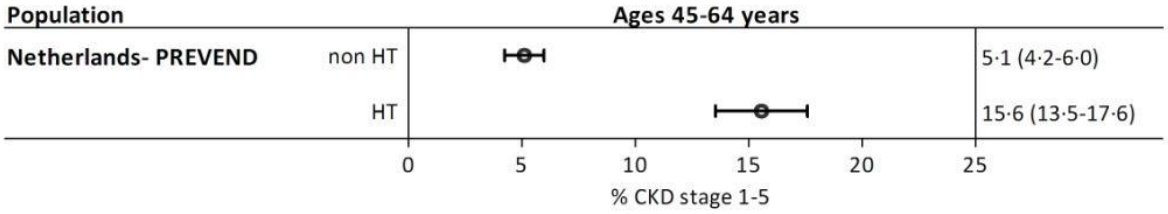
a: overall population



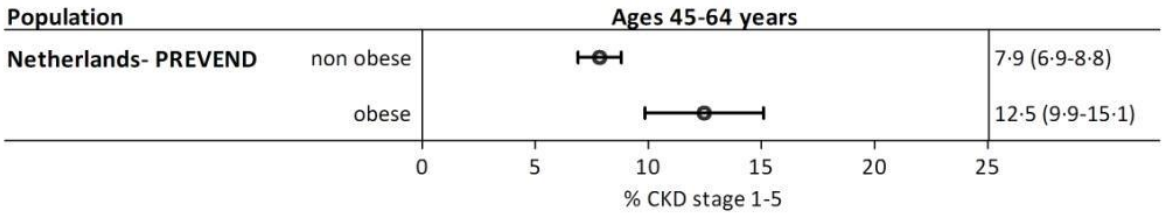
b: by diabetic status



c: by hypertensive status

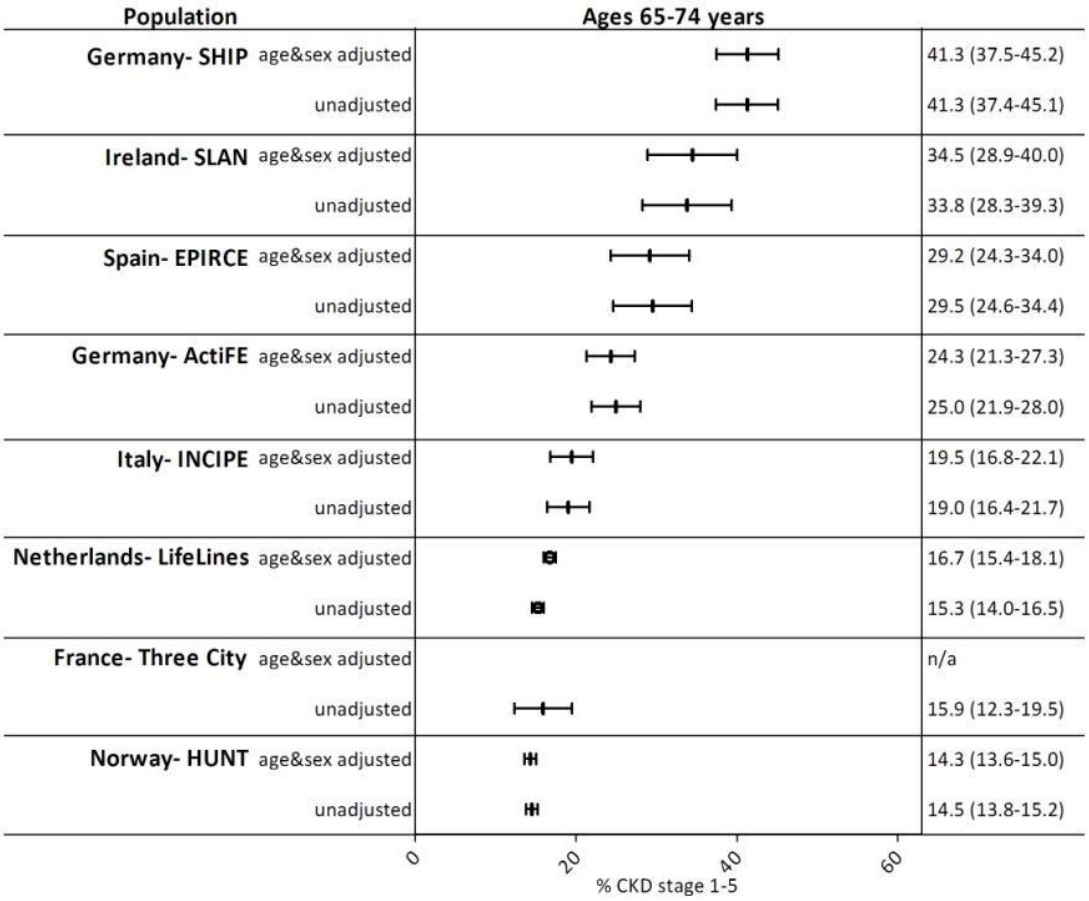


d: by obesity status



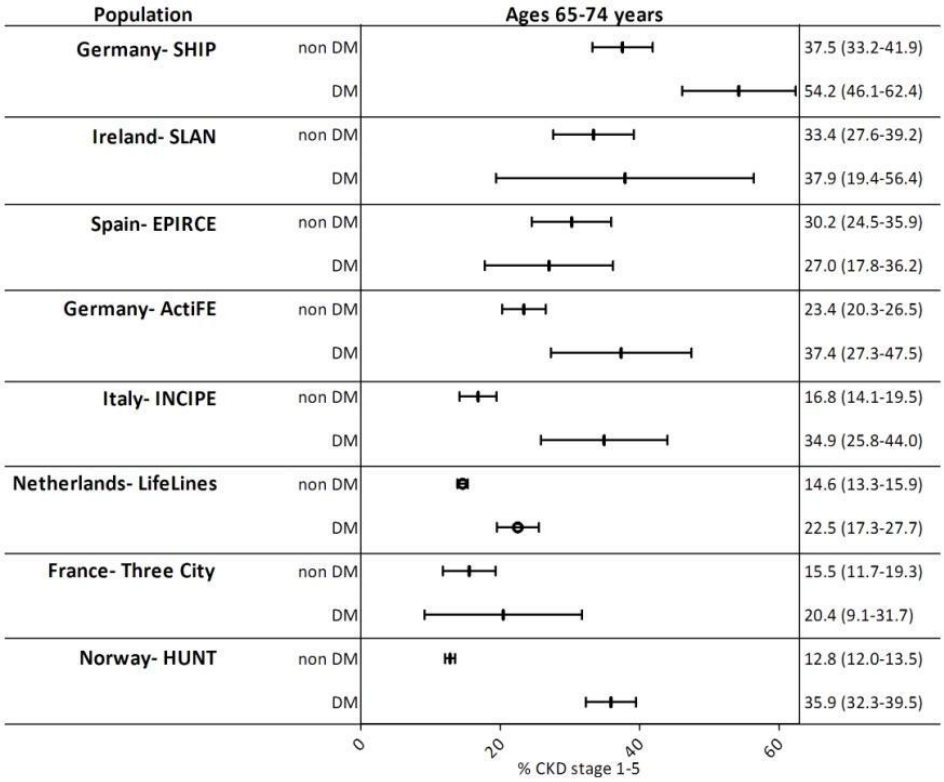
Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. DM = diabetes mellitus, HT= hypertension. In the PREVEND study all known diabetics were excluded, therefore the prevalence in diabetics is likely an underrepresentation of the true CKD prevalence in diabetics. The PREVEND study used an enzymatic assay to determine serum creatinine.

Figure 2.3: CKD stage 1-5 prevalence (95%CI) in age group 65-74 years, in studies using IDMS traceable creatinine.
a: overall population

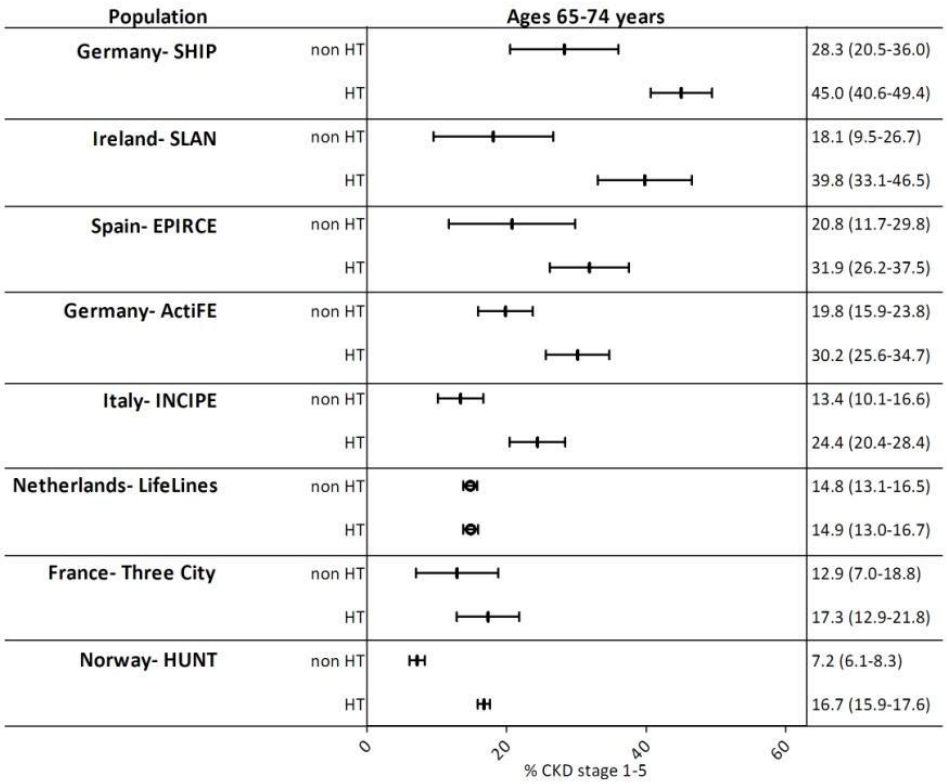


Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. Three City data from subgroup population with albuminuria data measured 4 years after study inclusion.

Figure 2.3: CKD stage 1-5 prevalence (95%CI) in age group 65-74 years, in studies using IDMS traceable creatinine.
b: by diabetic status



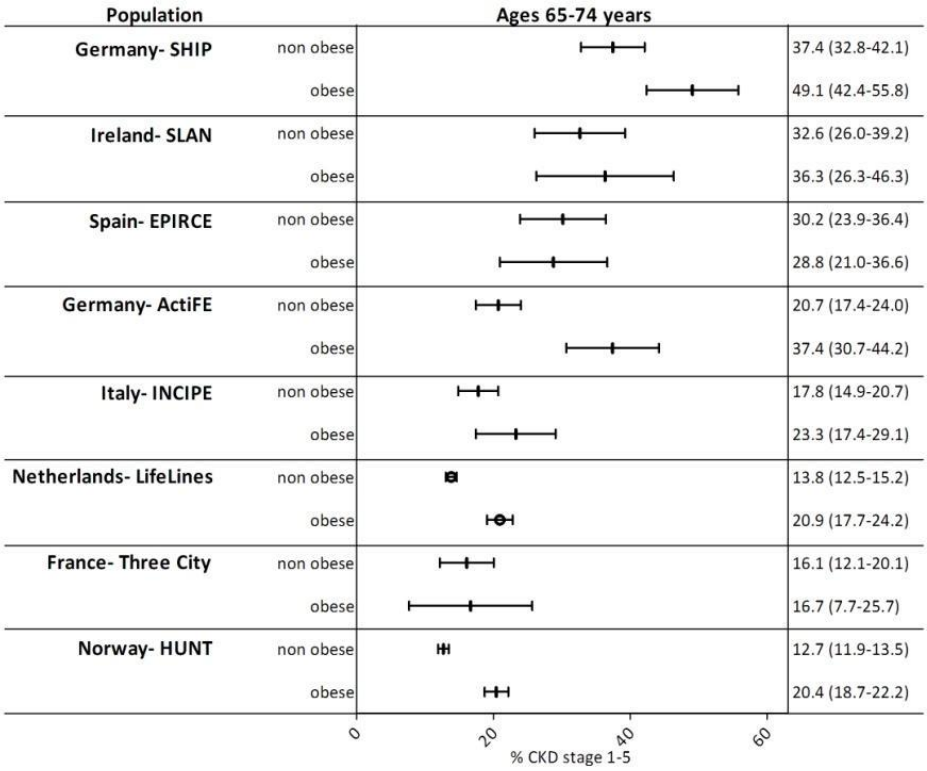
c: by hypertensive status



Θ studies using enzymatic method, | studies using Jaffe method. DM= diabetes mellitus, HT= hypertension. Three City data from subgroup population with albuminuria data measured 4 years after study inclusion.

Figure 2.3: CKD stage 1-5 prevalence (95%CI) in age group 65-74 years, in studies using IDMS traceable creatinine.

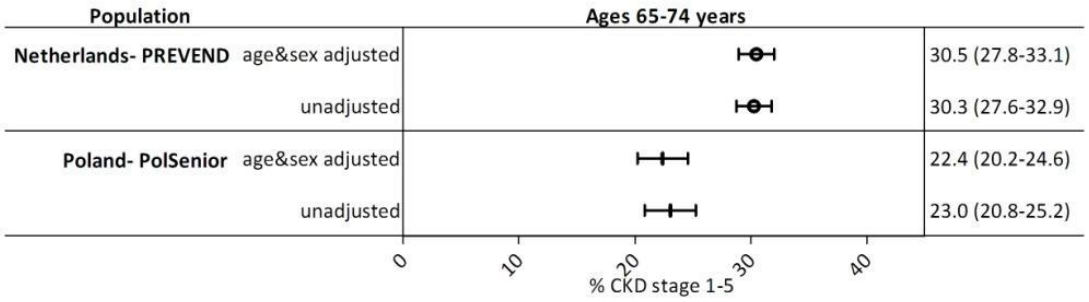
d: by obesity status



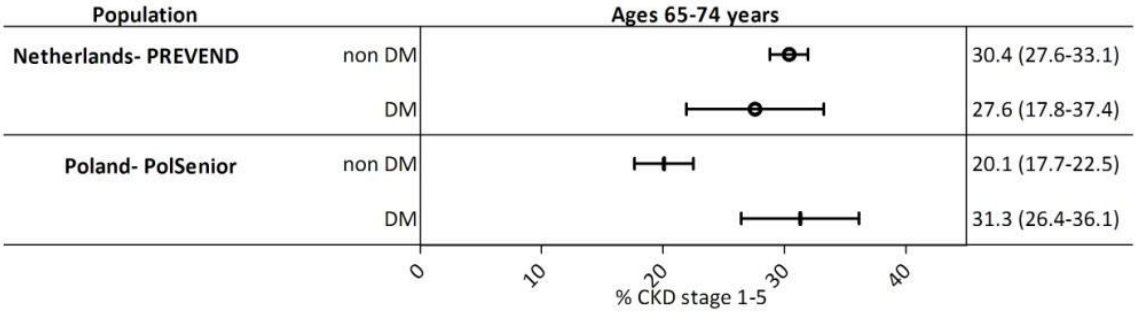
Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension. Three City data from subgroup population with albuminuria data measured 4 years after study inclusion.

Figure 2.3: CKD stage 1-5 prevalence (95%CI) age group 65-74 years, in studies using non-IDMS traceable creatinine.

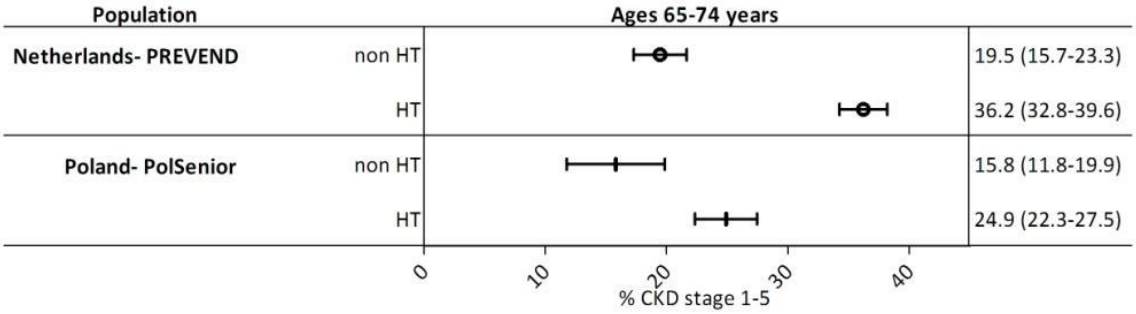
a: overall population



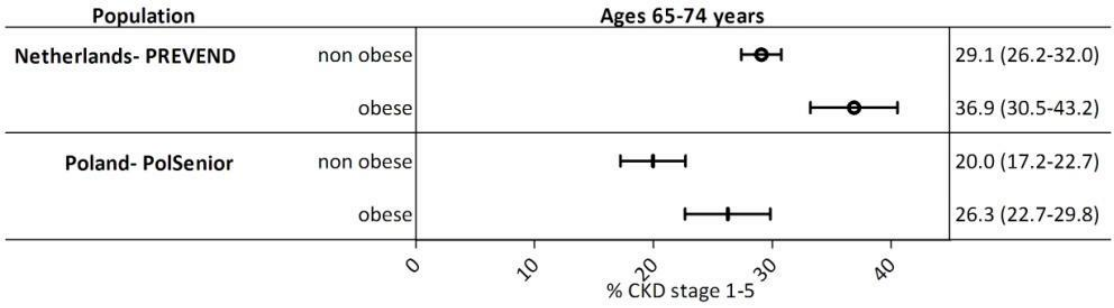
b: by diabetic status



c: by hypertensive status

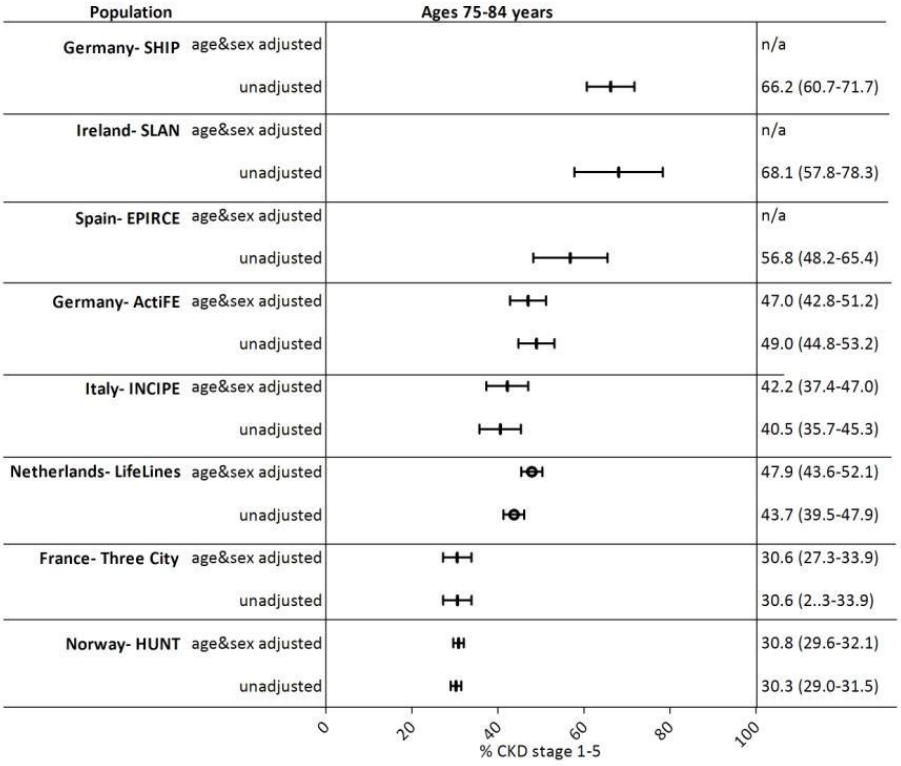


d: by obesity status

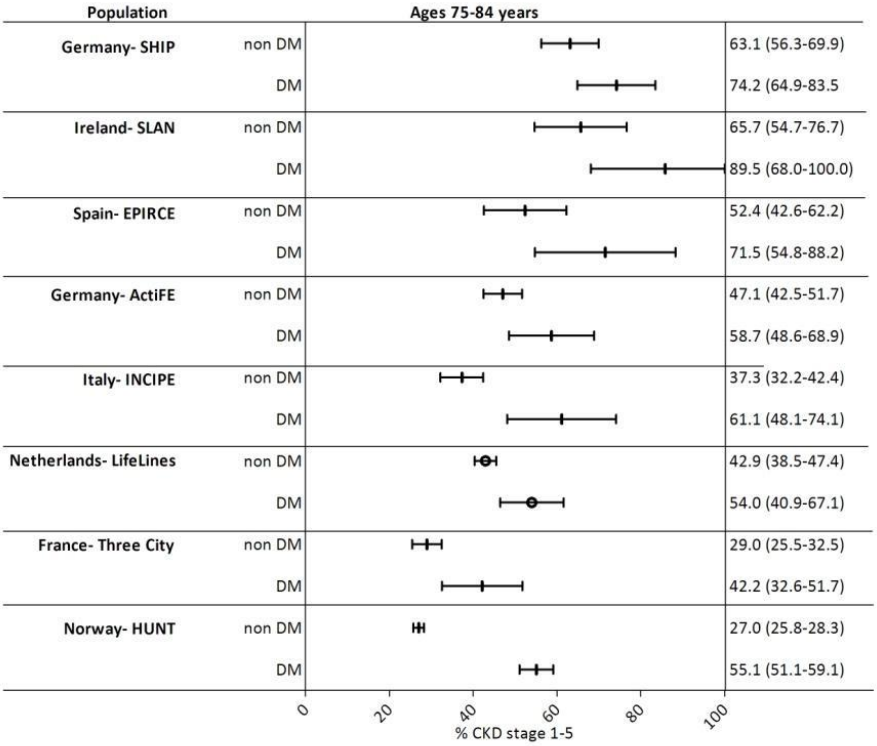


Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus, HT= hypertension. In the PREVEND study all known diabetics were excluded, therefore the prevalence in diabetics is likely an underrepresentation of the true CKD prevalence in diabetics.

Figure 2.4: CKD stage 1-5 prevalence (95%CI) in age group 75-84 years, in studies using IDMS traceable creatinine.
a: overall population



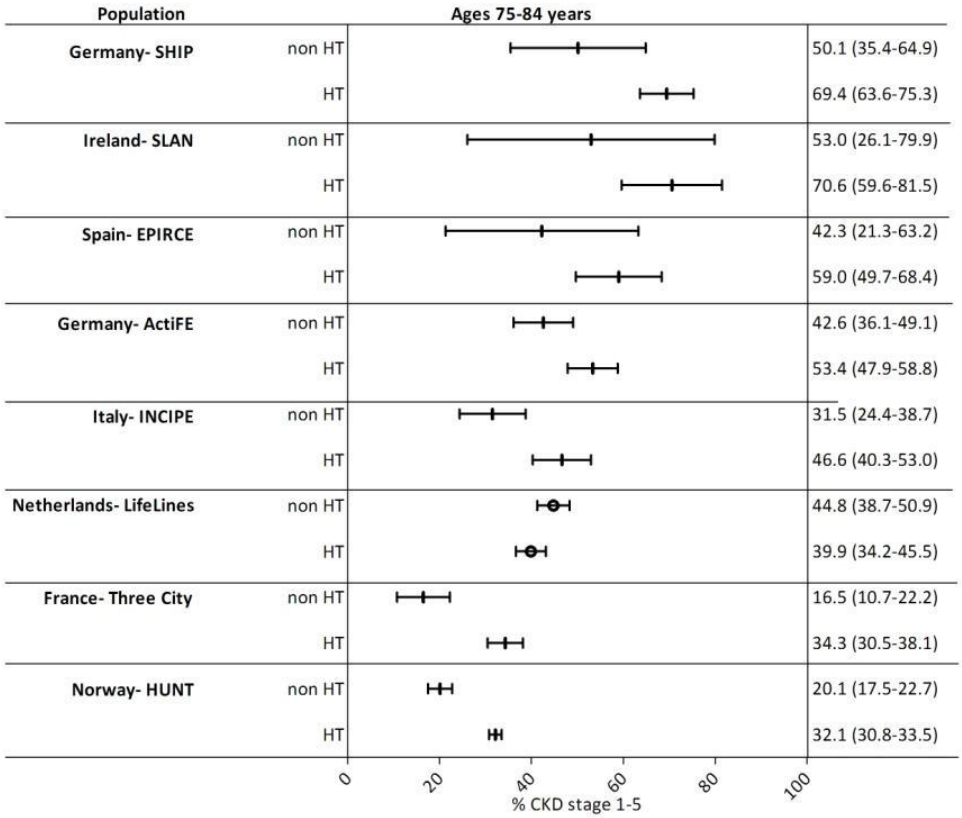
b: by diabetic status



Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM= diabetes mellitus

Figure 2.4: CKD stage 1-5 prevalence (95%CI) in age group 75-84 years, in studies using IDMS traceable creatinine.

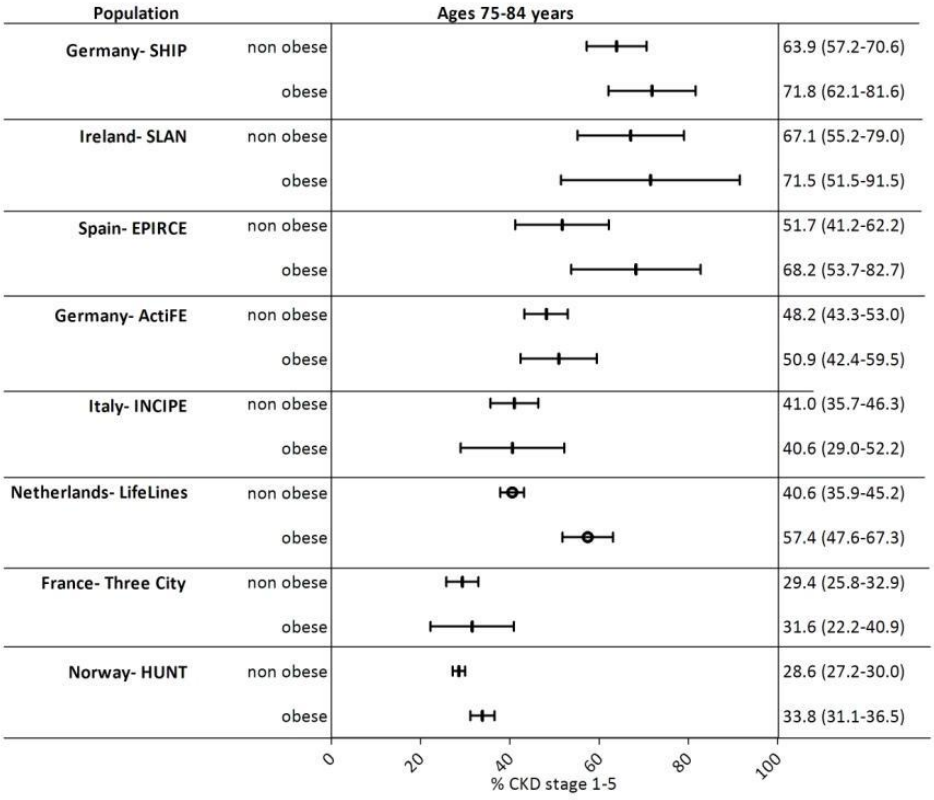
c: by hypertensive status



Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension. Three City data from subgroup population with albuminuria data measured 4 years after study inclusion.

Figure 2.4: CKD stage 1-5 prevalence (95%CI) in age group 75-84 years, in studies using IDMS traceable creatinine.

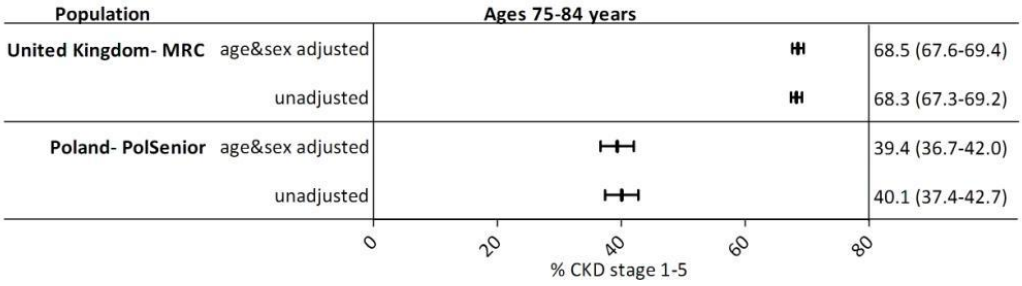
d: by obesity status



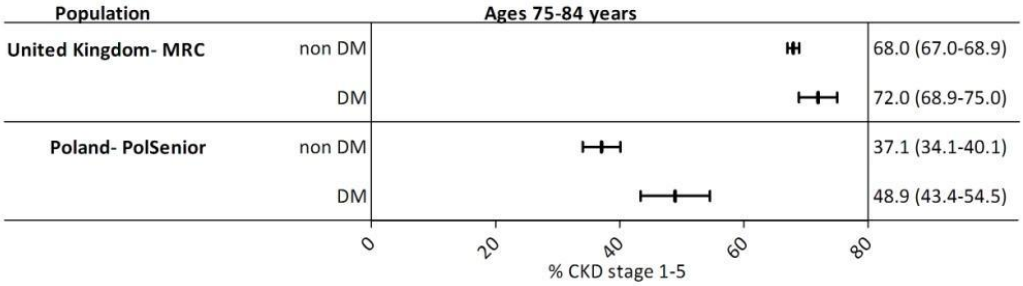
Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension. Three City data from subgroup population with albuminuria data measured 4 years after study inclusion.

Figure 2.4: CKD stage 1-5 prevalence (95%CI) in age group 75-84 years, in studies using non-IDMS traceable creatinine.

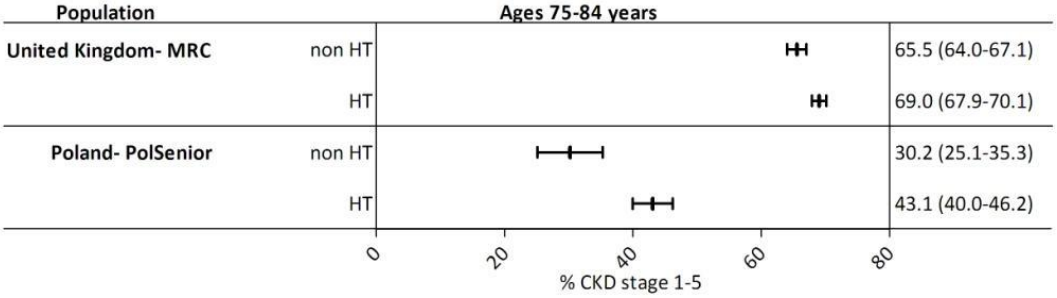
a: overall population



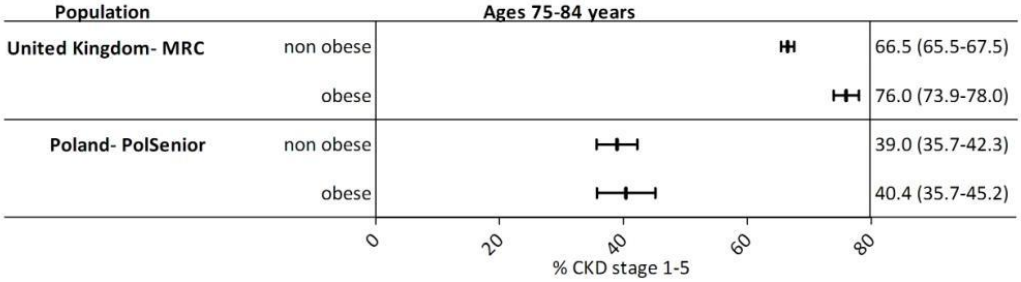
b: by diabetic status



c: by hypertensive status



d: by obesity status

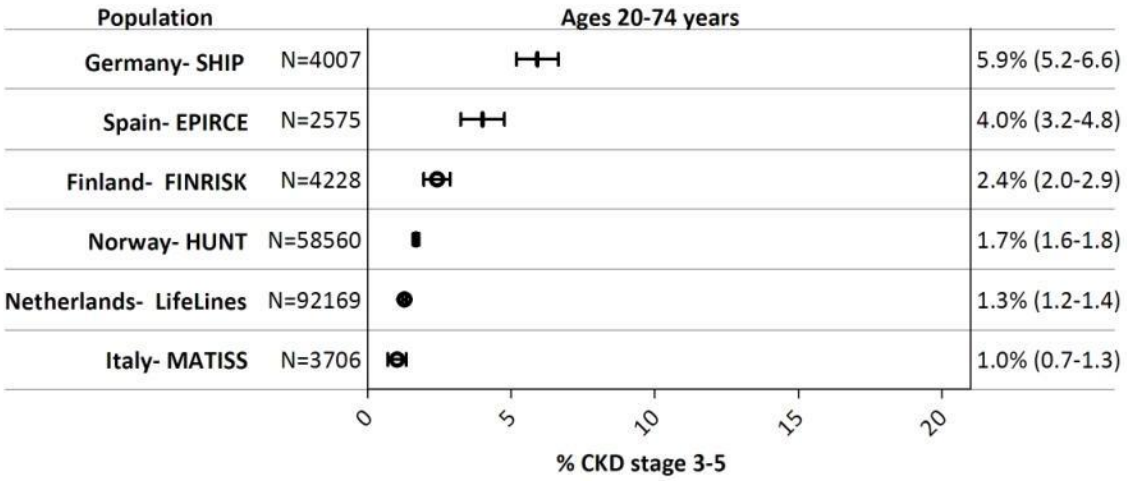


Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. DM = diabetes mellitus, HT= hypertension. | studies using Jaffe method. MRC study results are comprised of a combination of enzymatic and Jaffe results, for investigators did not distinguish results by measurement method.

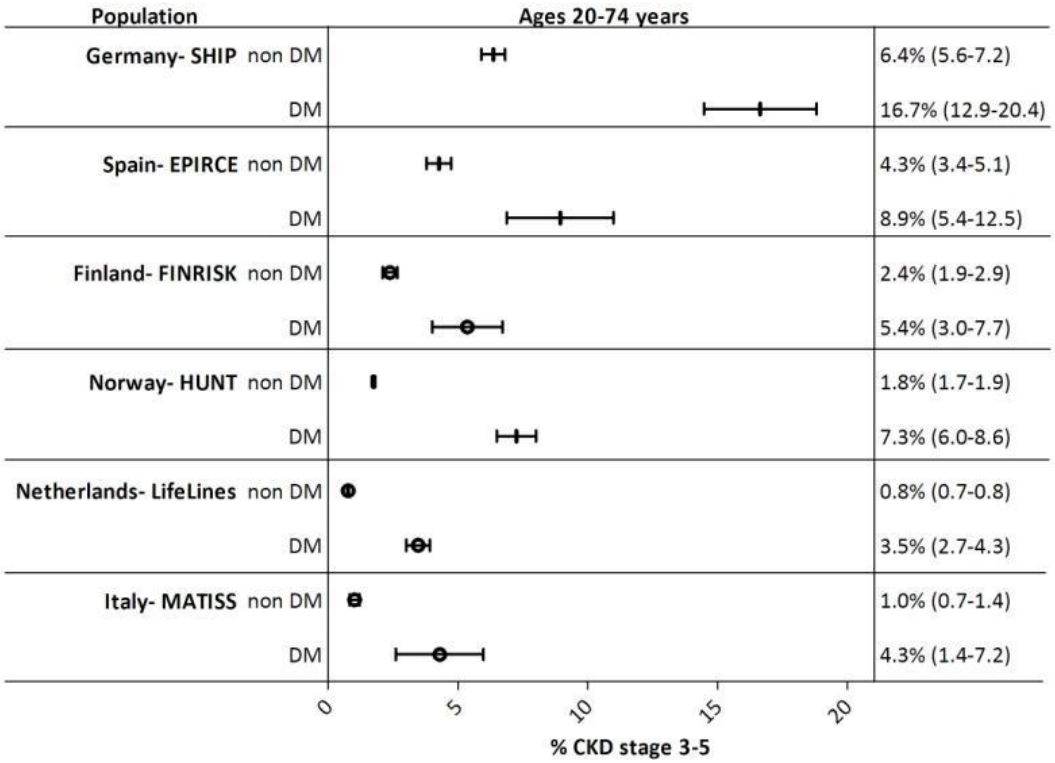
CKD stage 3-5 prevalence

Figure 3: CKD stage 3-5 prevalence (95%CI) in the adult population, IDMS studies.

a: overall population

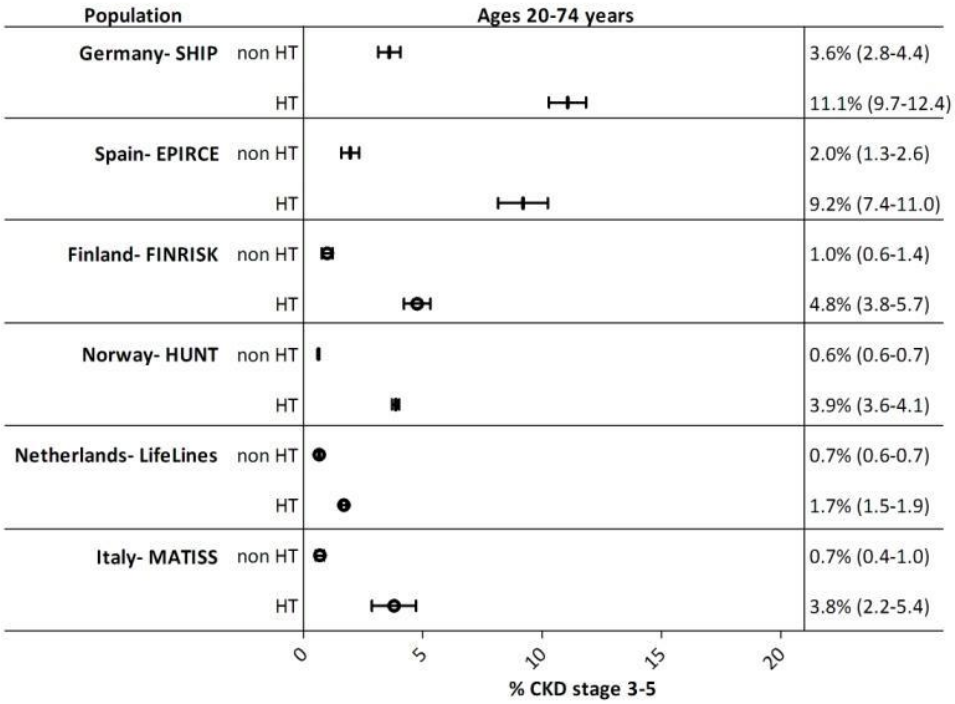


b: by diabetic status

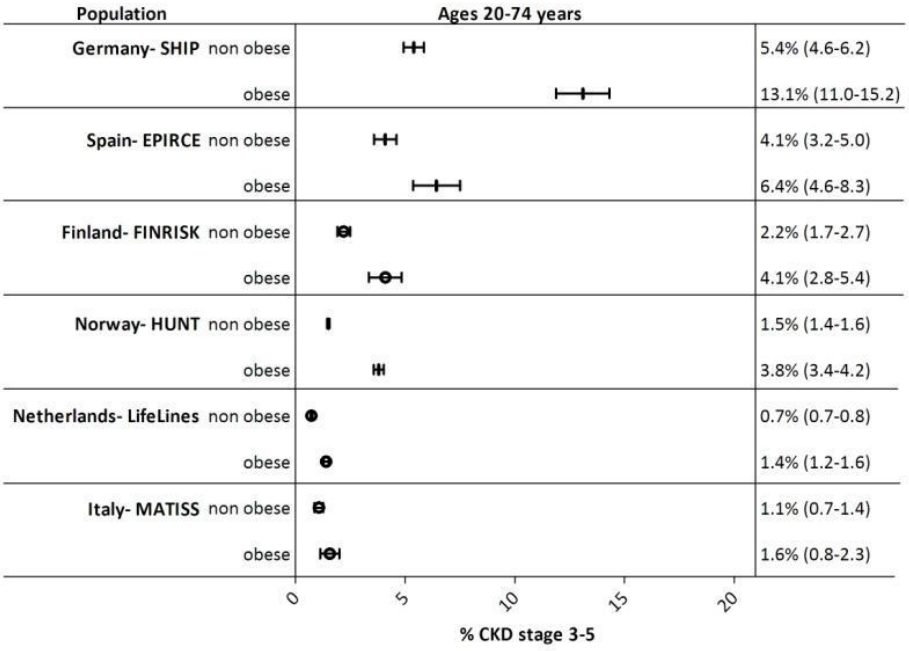


Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus, HT= hypertension

c: by hypertensive status



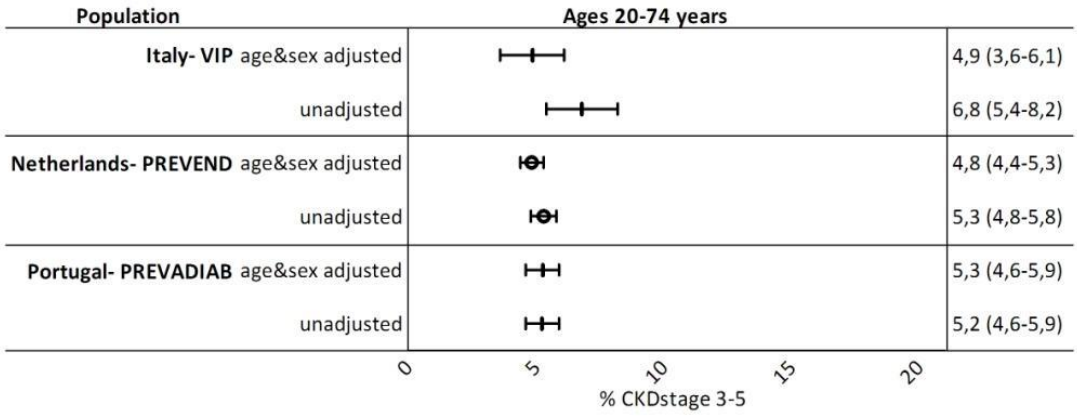
d: by obesity status



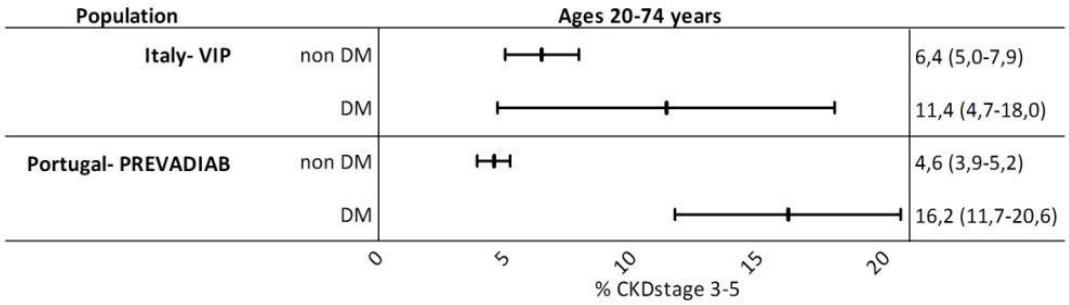
Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension

Figure 3: CKD stage 3-5 prevalence (95%CI) in the adult population, non IDMS studies.

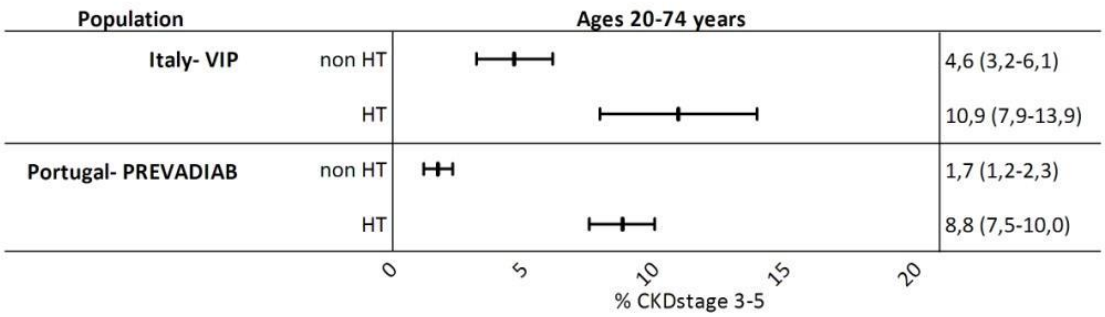
a: overall population



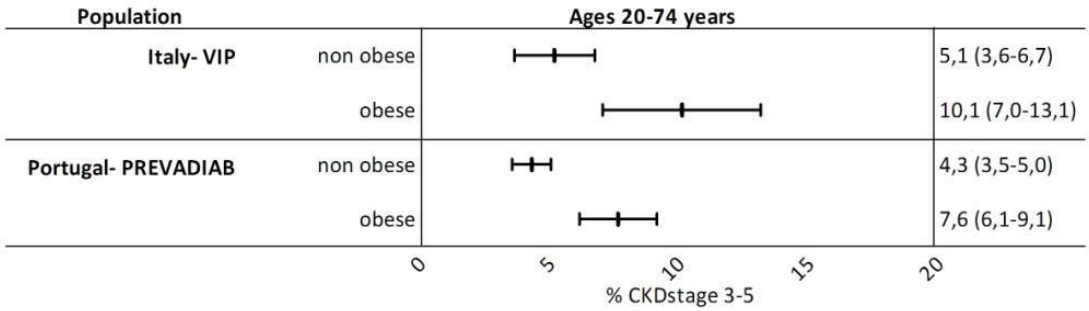
b: by diabetic status



c: by hypertensive status



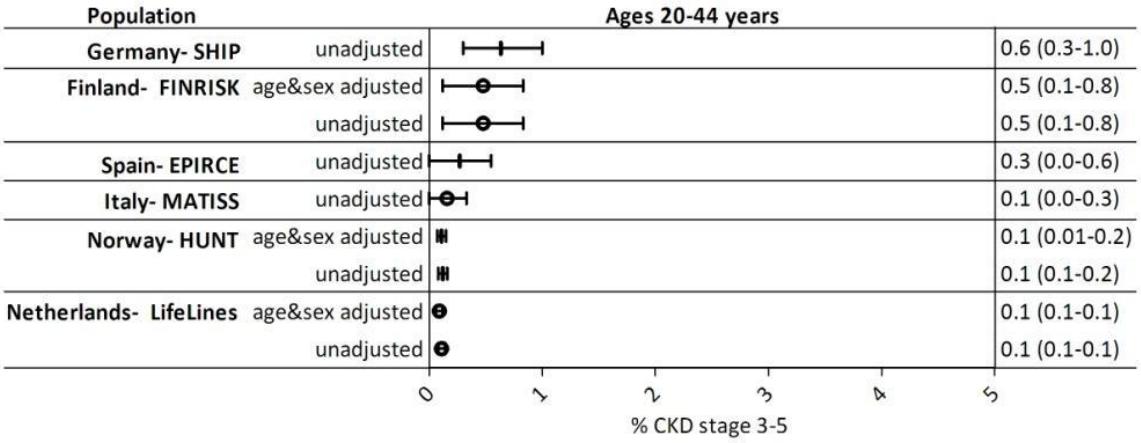
d: by obesity status



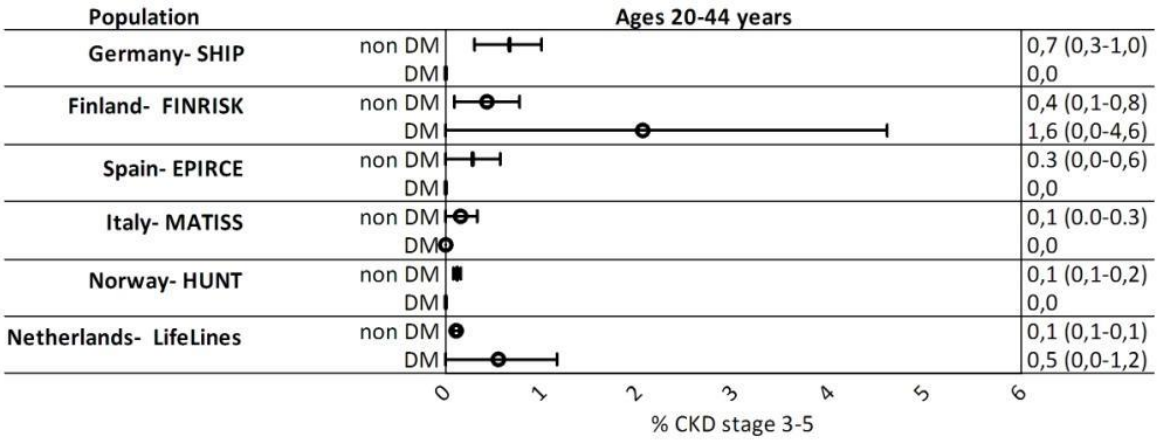
Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus, HT= hypertension

Figure 4.1: CKD stage 3-5 prevalence (95%CI) in age group 20-44 years, in studies using IDMS traceable creatinine.

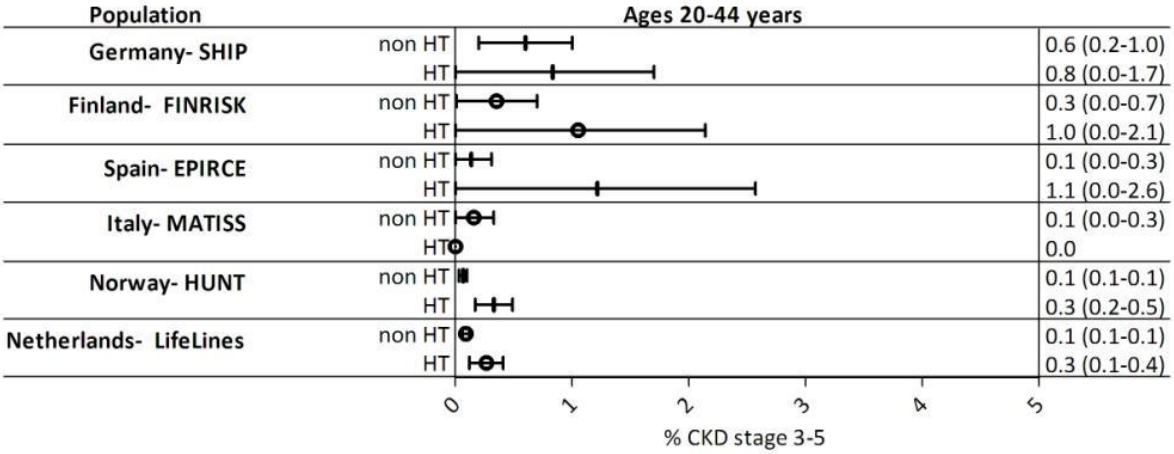
a: overall population



b: by diabetic status



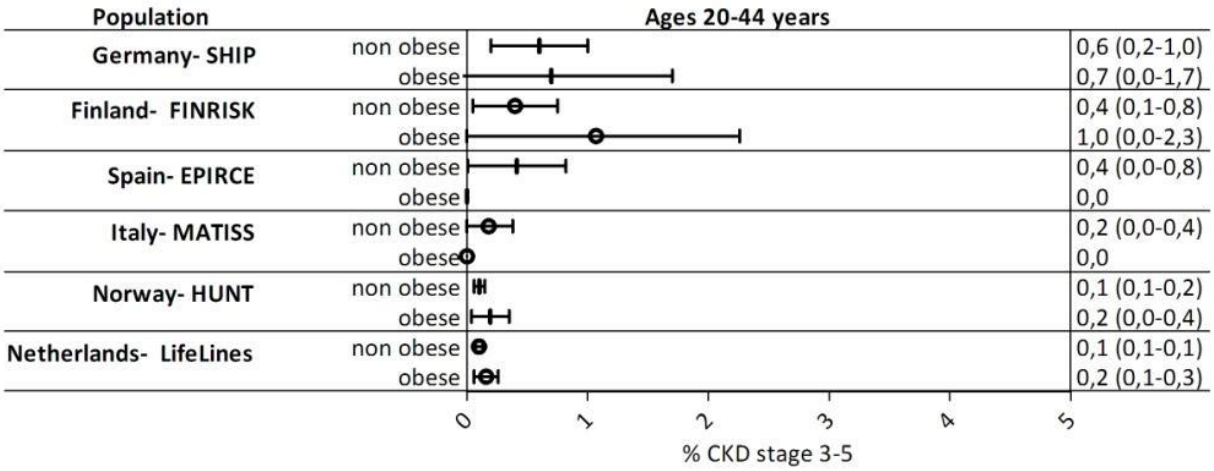
c: by hypertensive status



Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus, HT= hypertension

Figure 4.1: CKD stage 3-5 prevalence (95%CI) in age group 20-44 years, in studies using IDMS traceable creatinine.

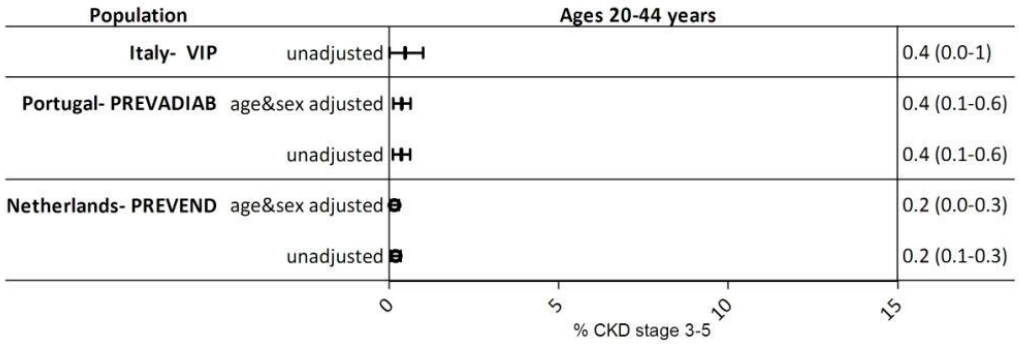
d: by obesity status



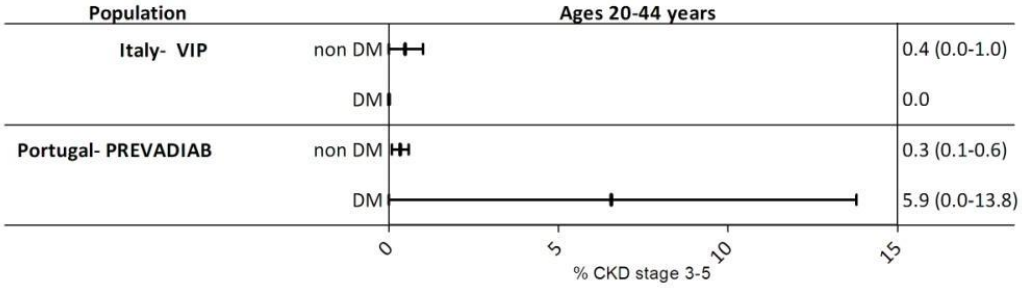
Θ studies using enzymatic method, | studies using Jaffe method.

Figure 4.1: CKD stage 3-5 prevalence (95%CI) in age group 20-44 years, in study using non- IDMS traceable creatinine.

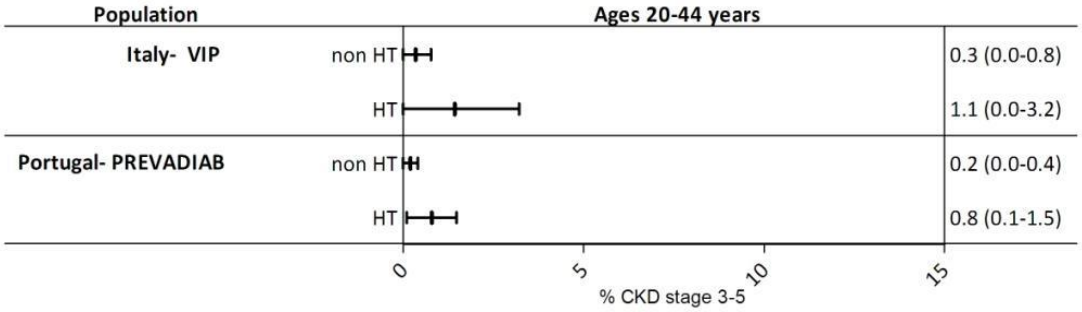
a: overall population



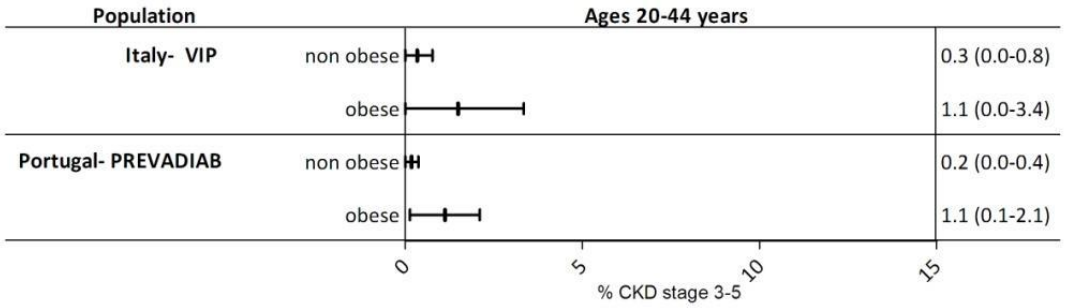
b: by diabetic status



c: by hypertensive status



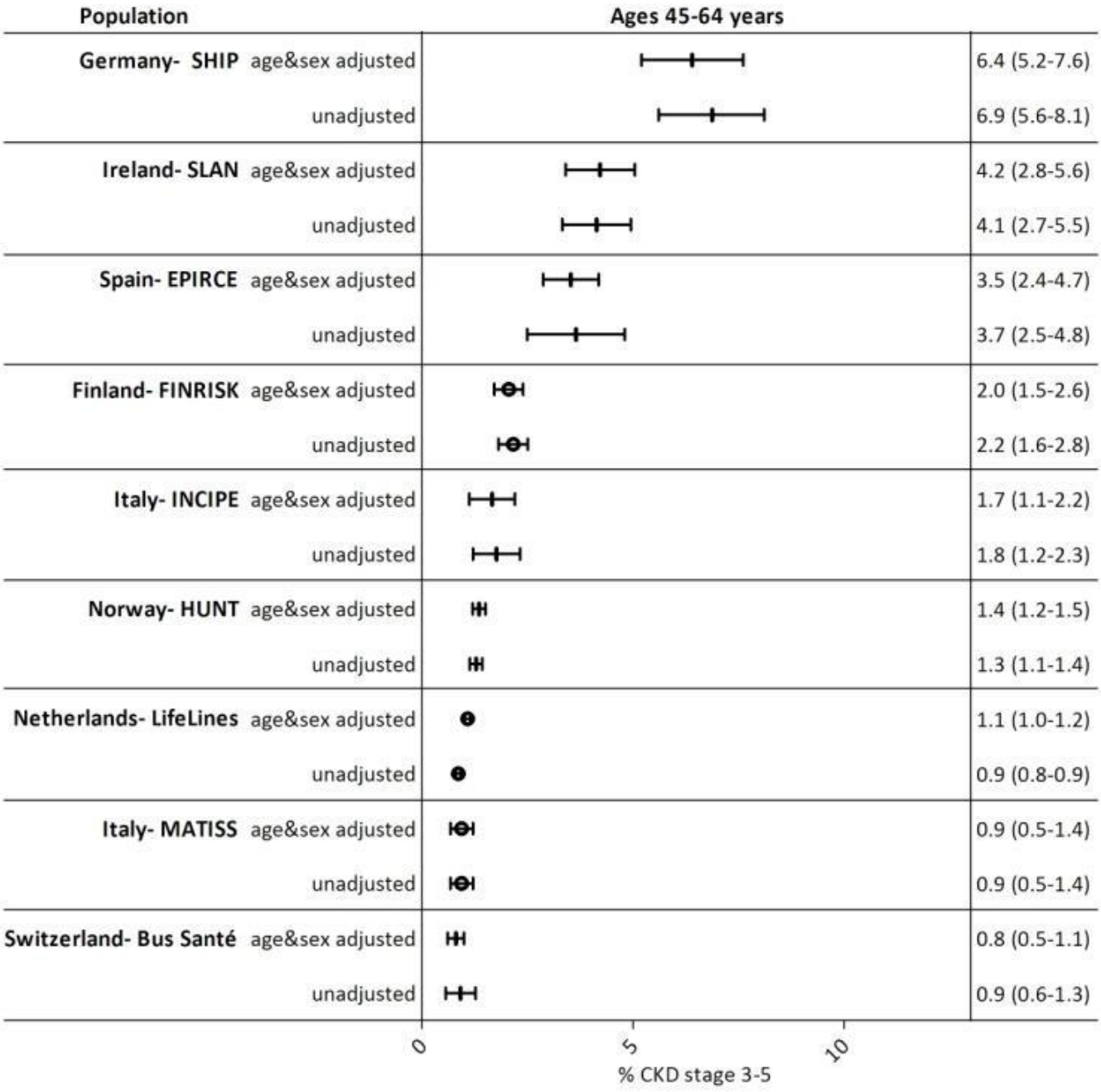
d: by obesity status



Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus, HT= hypertension.

Figure 4.2: CKD stage 3-5 prevalence (95%CI) in age group 45-64 years, in studies using IDMS traceable creatinine.

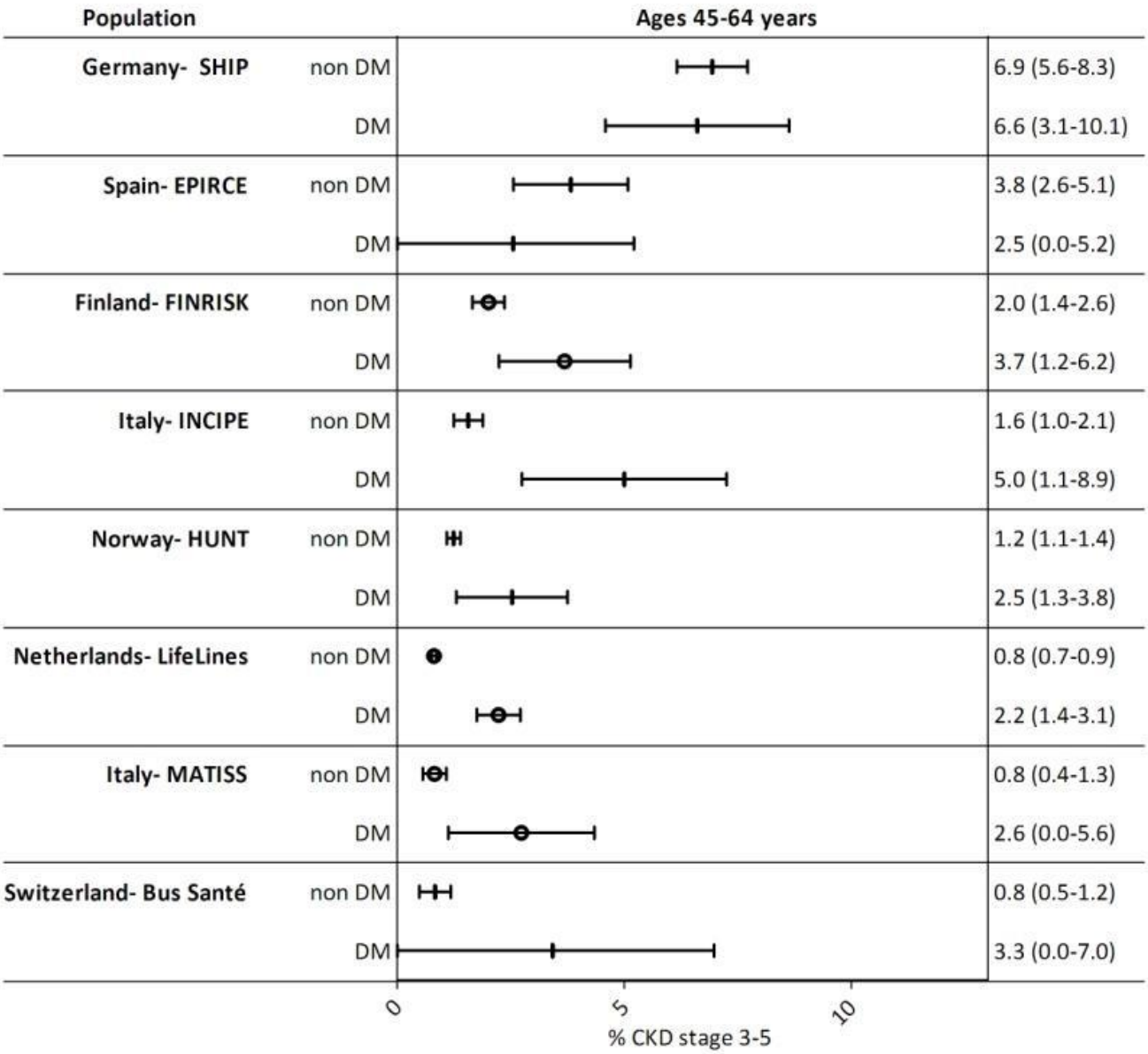
a: overall population



Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method.

Figure 4.2: CKD stage 3-5 prevalence (95%CI) in age group 45-64 years, in studies using IDMS traceable creatinine.

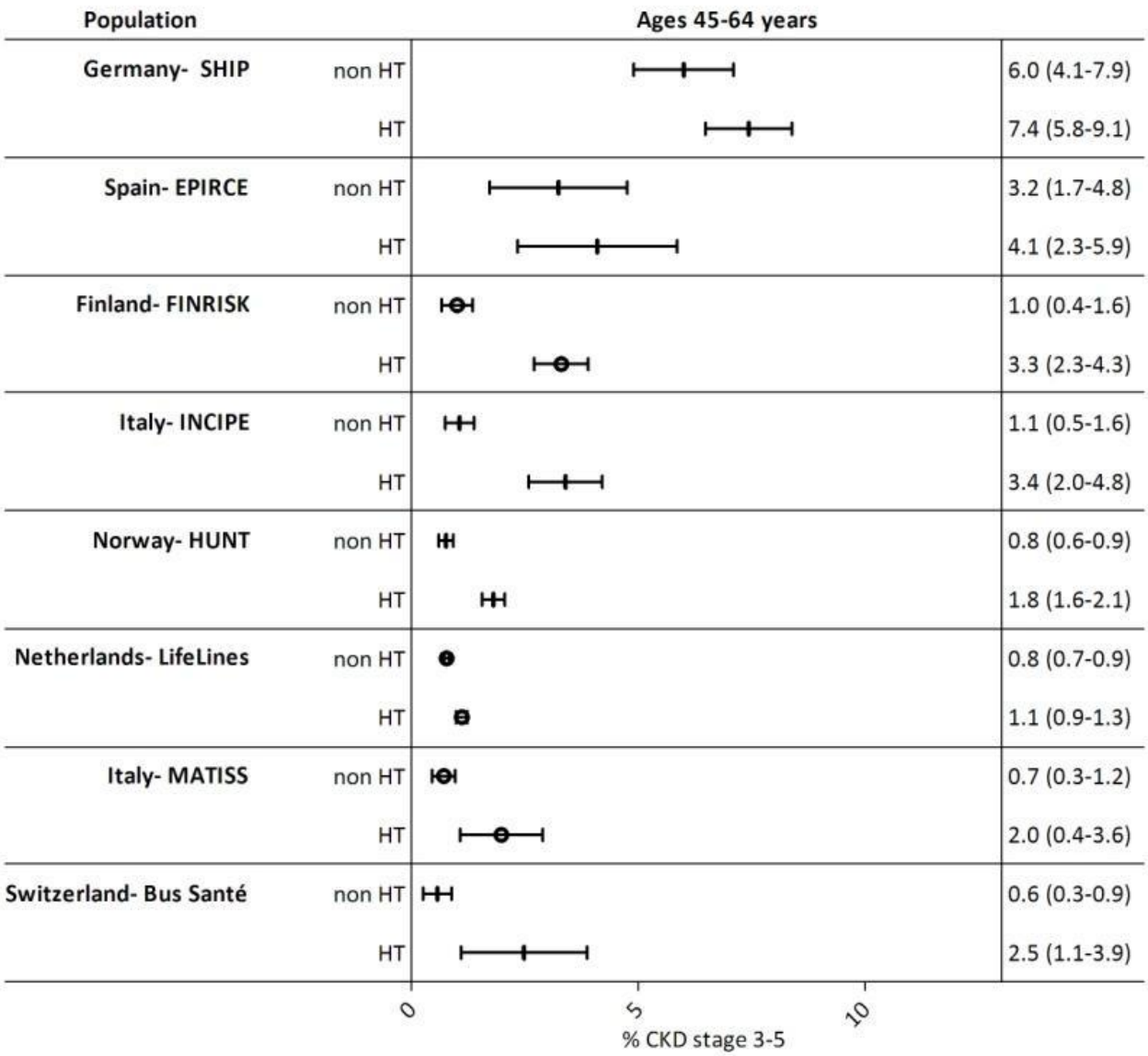
b: by diabetic status



Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus.

Figure 4.2: CKD stage 3-5 prevalence (95%CI) in age group 45-64 years, in studies using IDMS traceable creatinine.

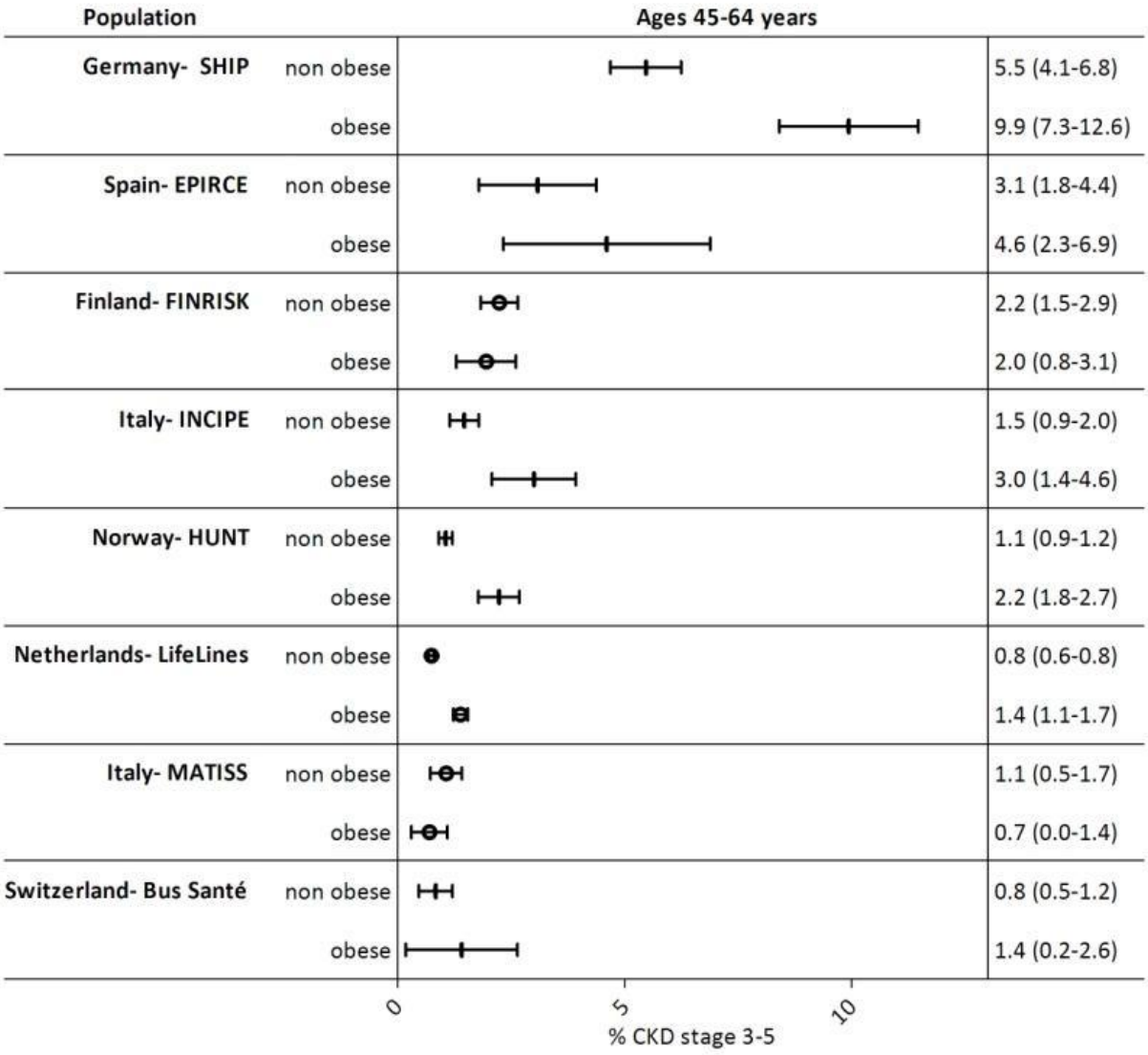
c: by hypertensive status



Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension.

Figure 4.2: CKD stage 3-5 prevalence (95%CI) in age group 45-64 years, in studies using IDMS traceable creatinine.

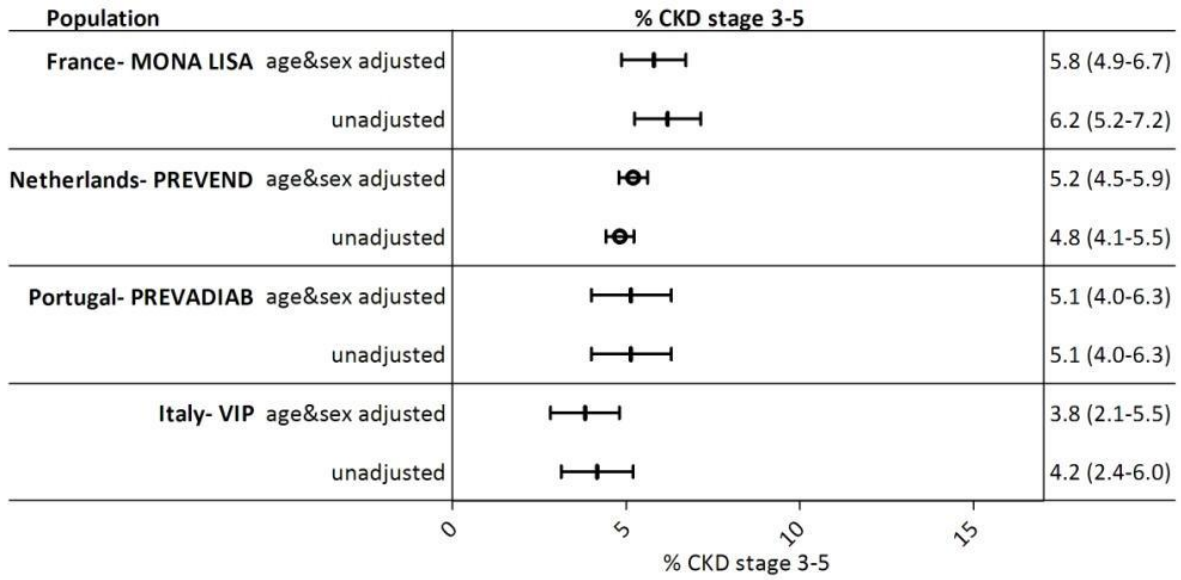
d: by obesity status



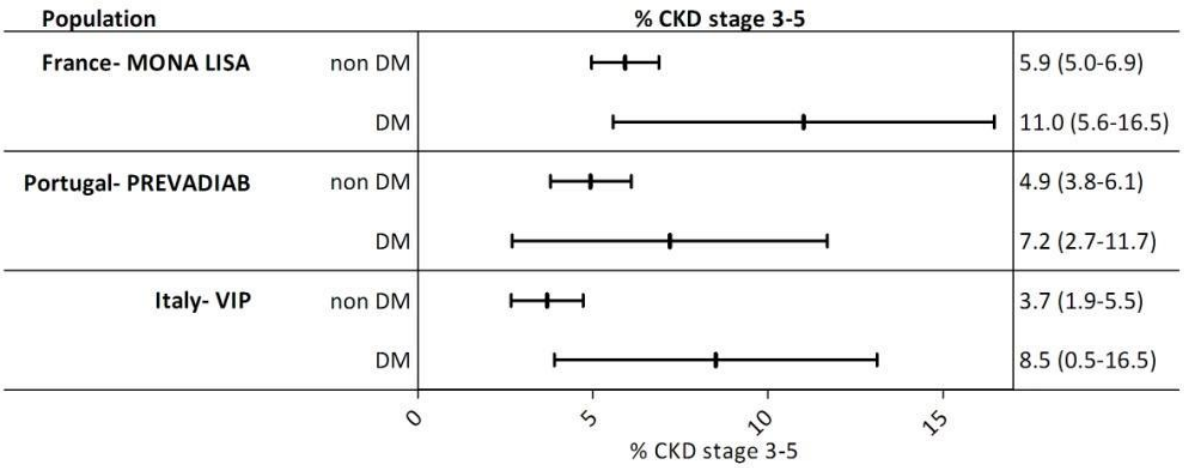
Θ studies using enzymatic method, | studies using Jaffe method.

Figure 4.2: CKD stage 3-5 prevalence (95%CI) in age group 45-64 years , in studies using non IDMS traceable creatinine.

a: overall population



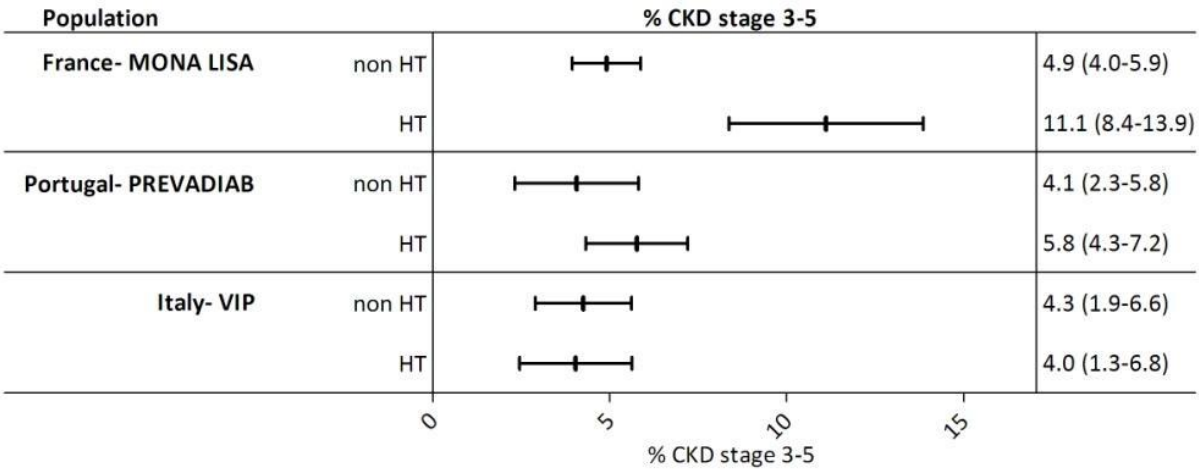
b: by diabetic status



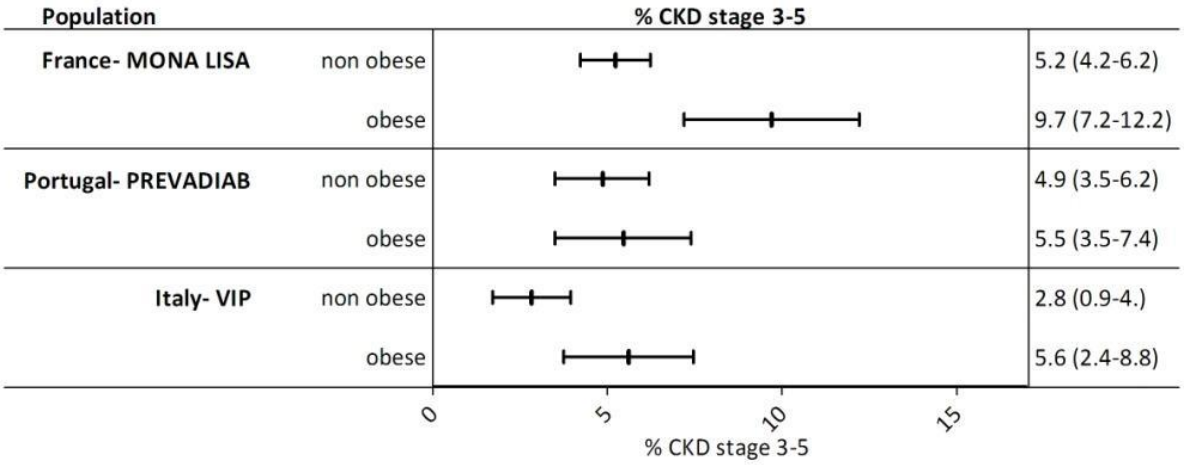
Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus.

Figure 4.2: CKD stage 3-5 prevalence (95%CI) in age group 45-64 years , in studies using non IDMS traceable creatinine.

c: by hypertensive status



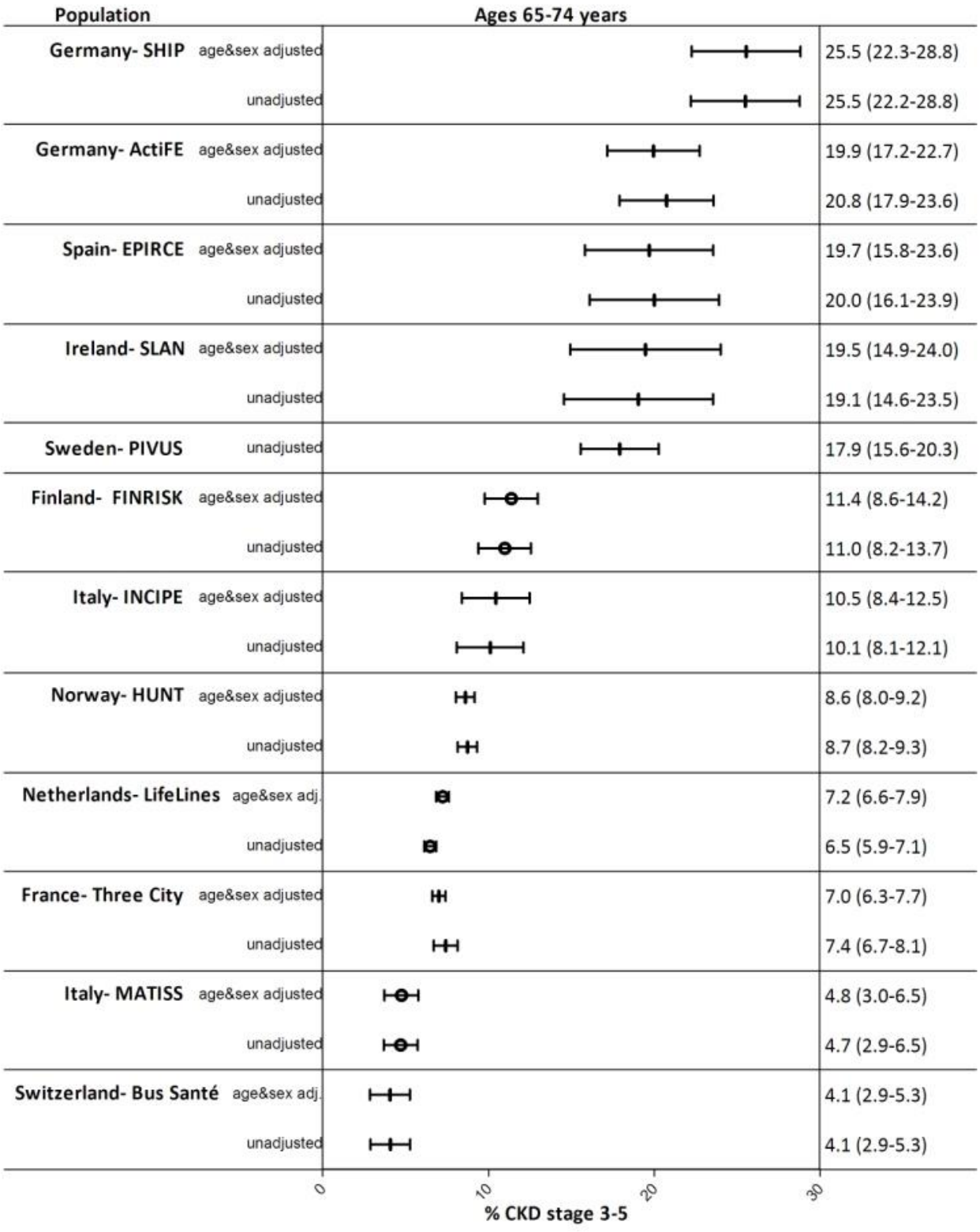
d: by obesity status



| studies using Jaffe method. HT= hypertension.

Figure 4.3: CKD stage 3-5 prevalence (95%CI) in age group 65-74 years, in studies using IDMS traceable creatinine.

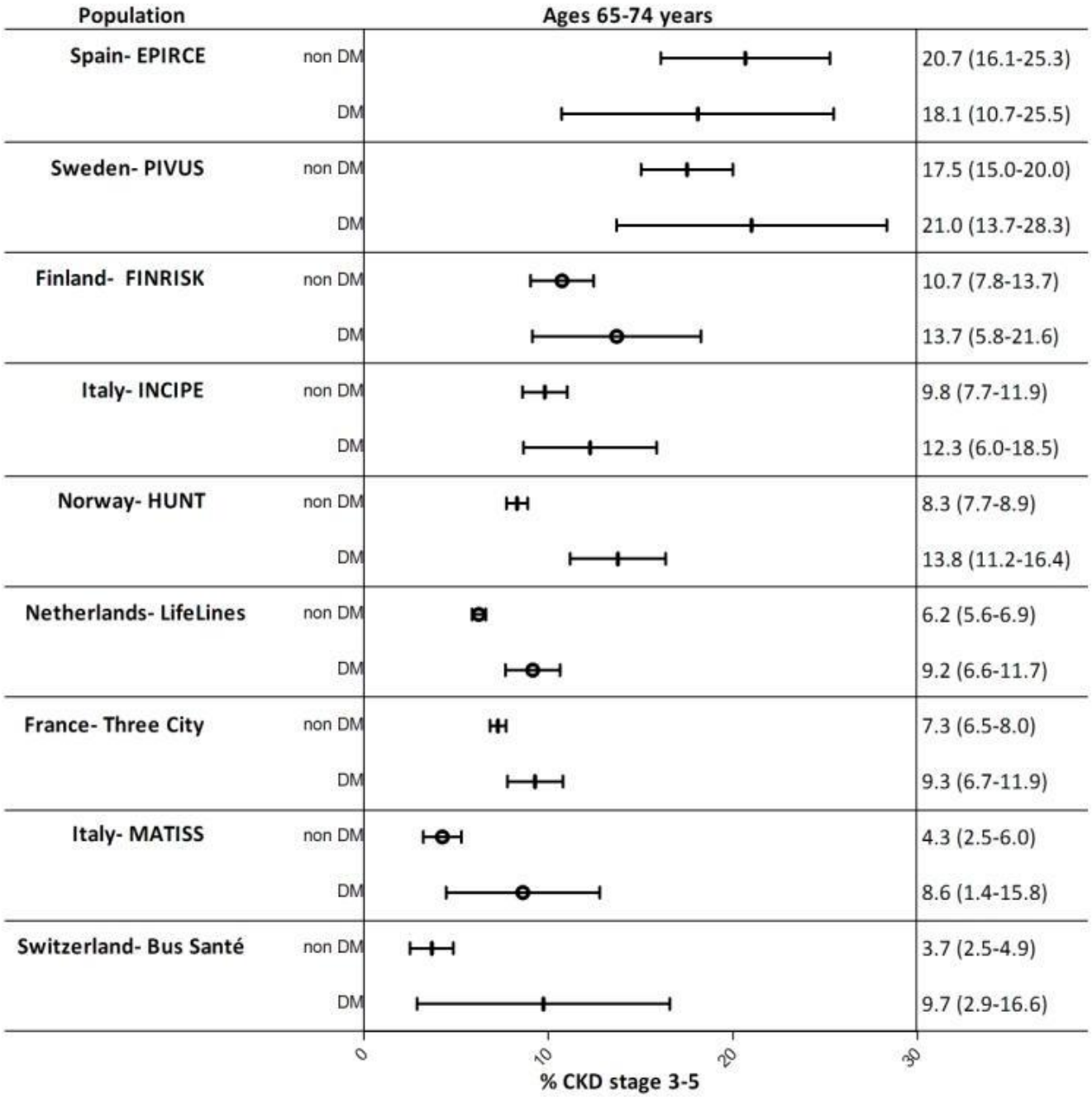
a: overall population



Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. Θ studies using enzymatic method, | studies using Jaffe method.

Figure 4.3: CKD stage 3-5 prevalence (95%CI) in age group 65-74 years, in studies using IDMS traceable creatinine.

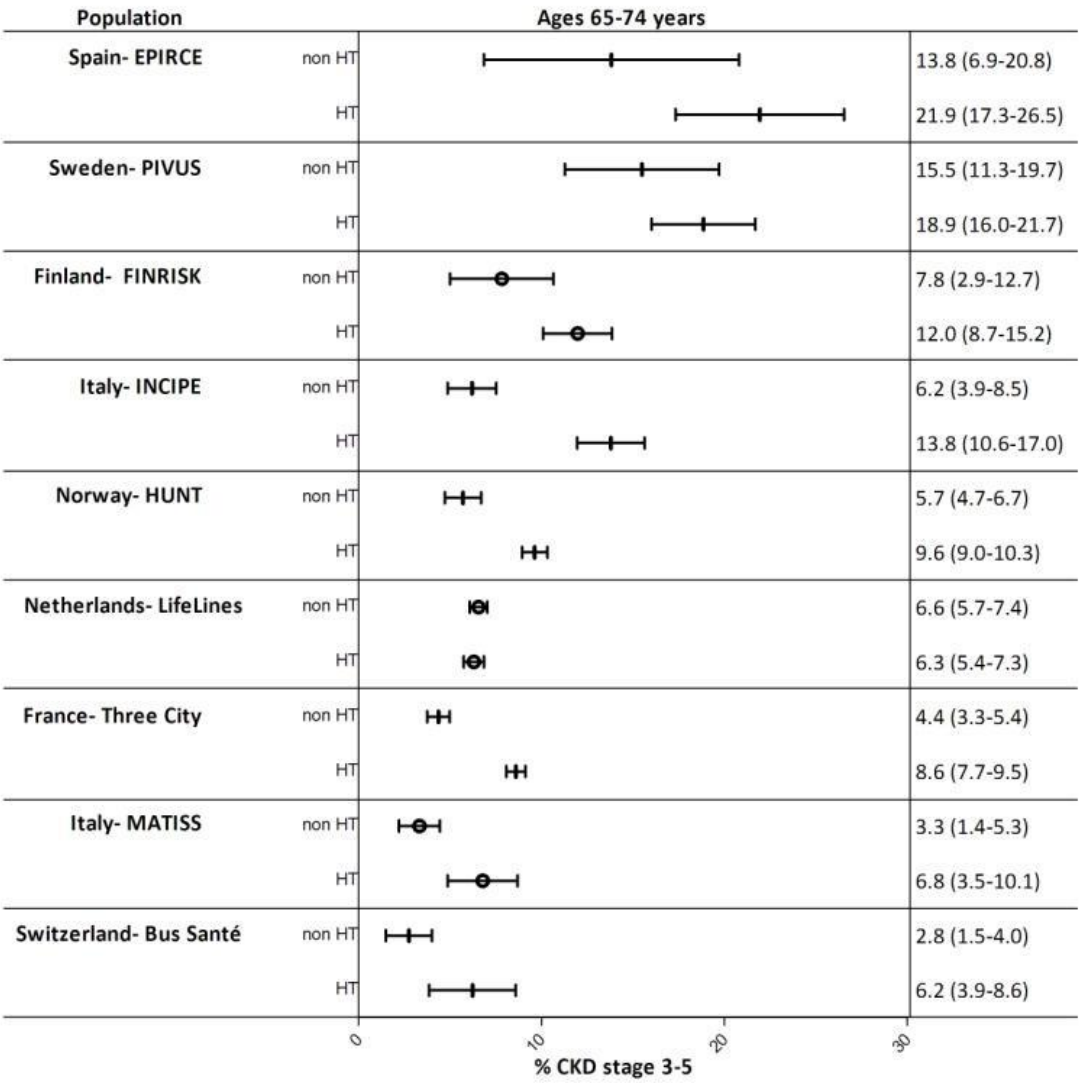
b: by diabetic status



Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus.

Figure 4.3: CKD stage 3-5 prevalence (95%CI) in age group 65-74 years, in studies using IDMS traceable creatinine.

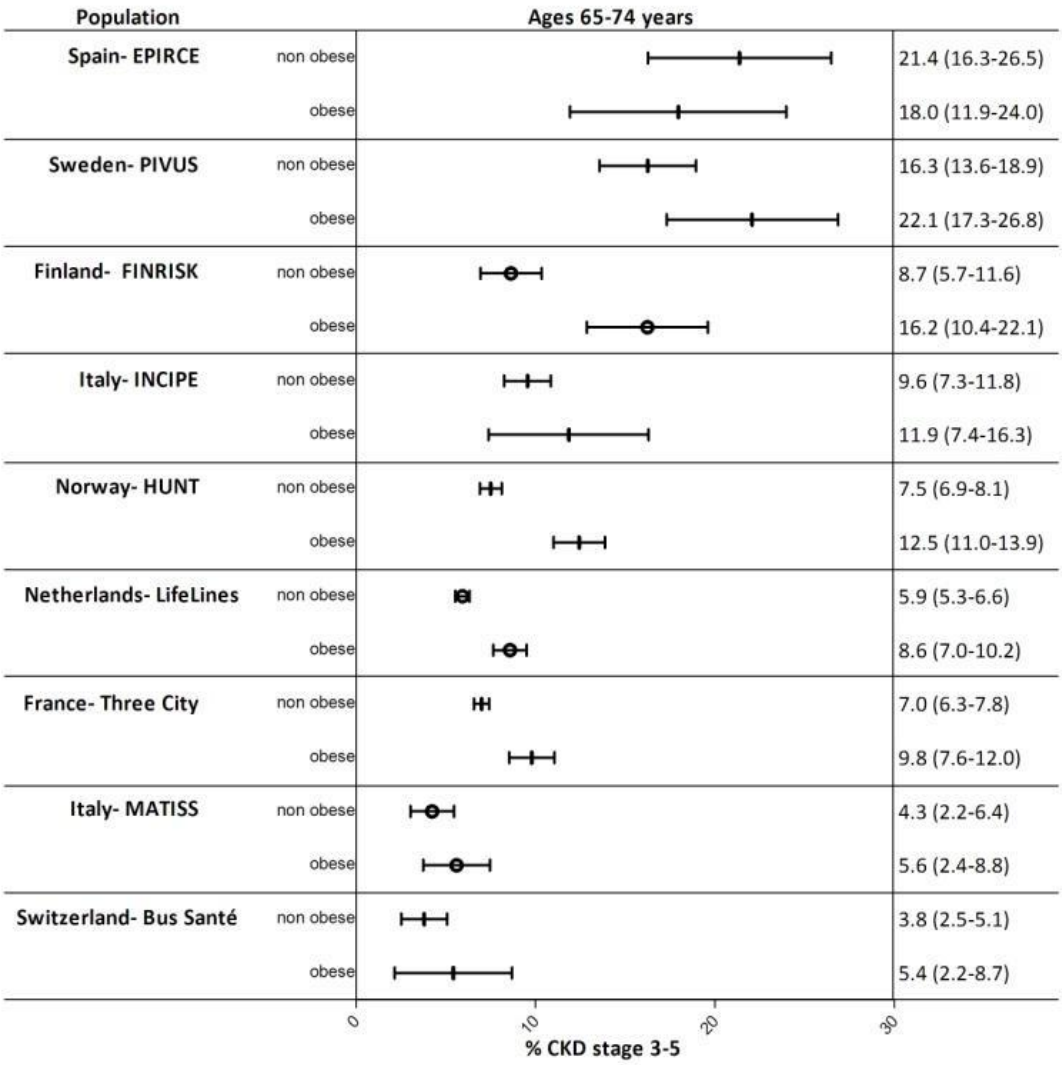
c: by hypertensive status



Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension.

Figure 4.3: CKD stage 3-5 prevalence (95%CI) in age group 65-74 years, in studies using IDMS traceable creatinine.

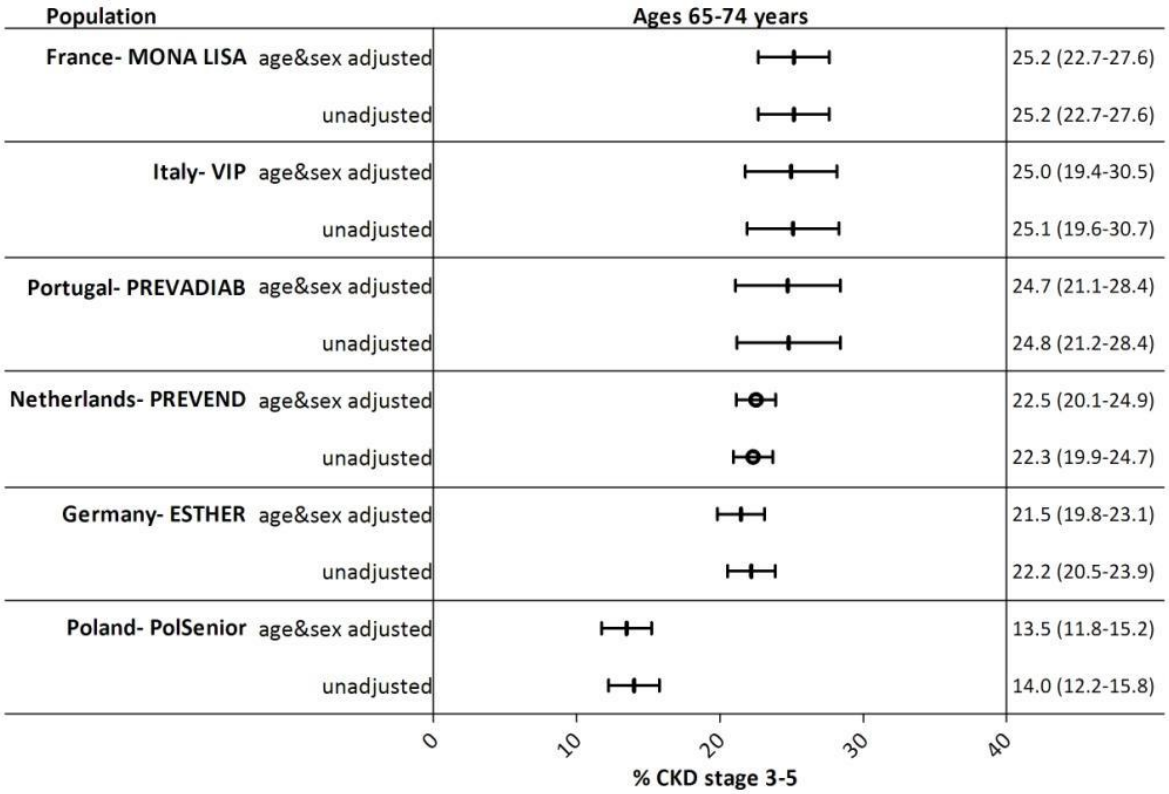
d: by obesity status



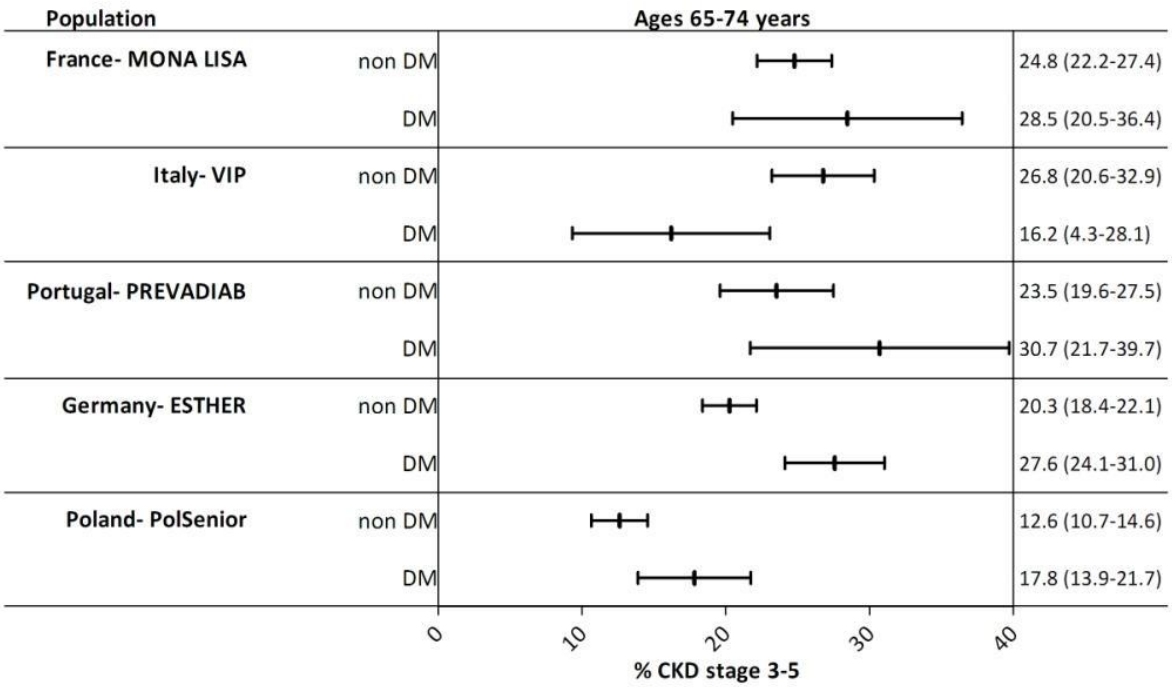
Θ studies using enzymatic method, | studies using Jaffe method.

Figure 4.3: CKD stage 3-5 prevalence (95%CI) in age group 65-74 years, in studies using non IDMS traceable creatinine.

a: overall population



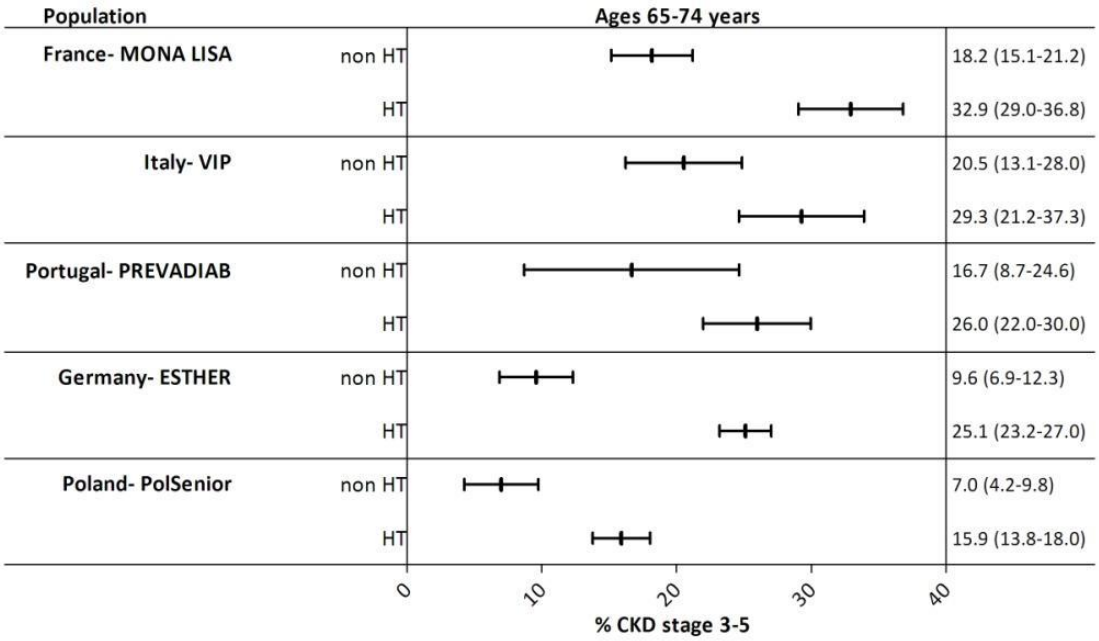
b: by diabetic status



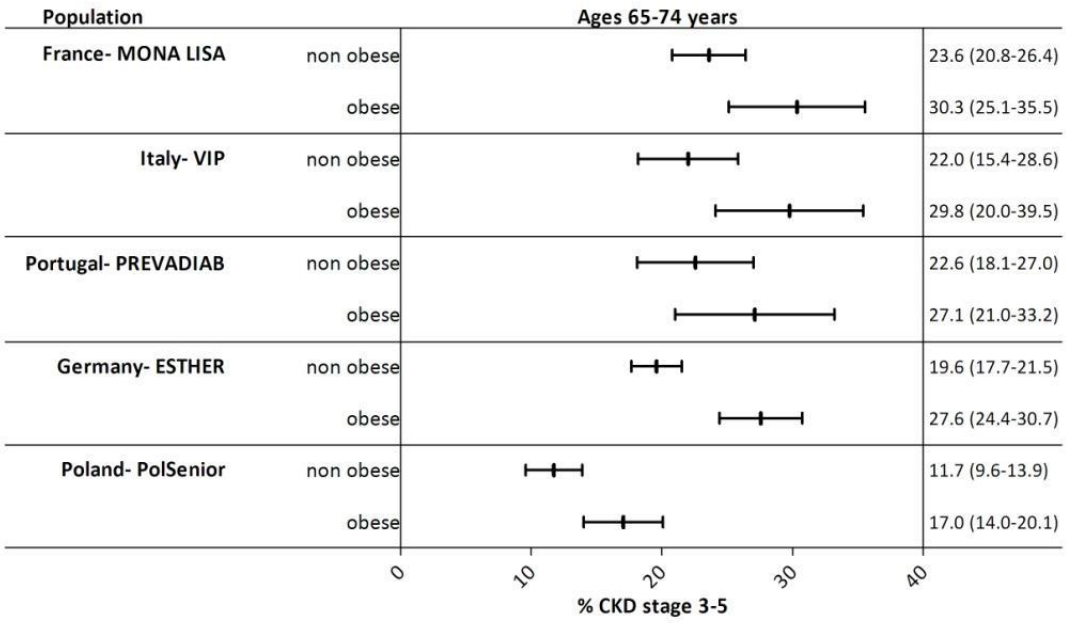
Adjusted prevalence was age and sex adjusted to the EU27 population 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus.

Figure 4.3: CKD stage 3-5 prevalence (95%CI) in age group 65-74 years, in studies using non IDMS traceable creatinine.

c: by hypertensive status



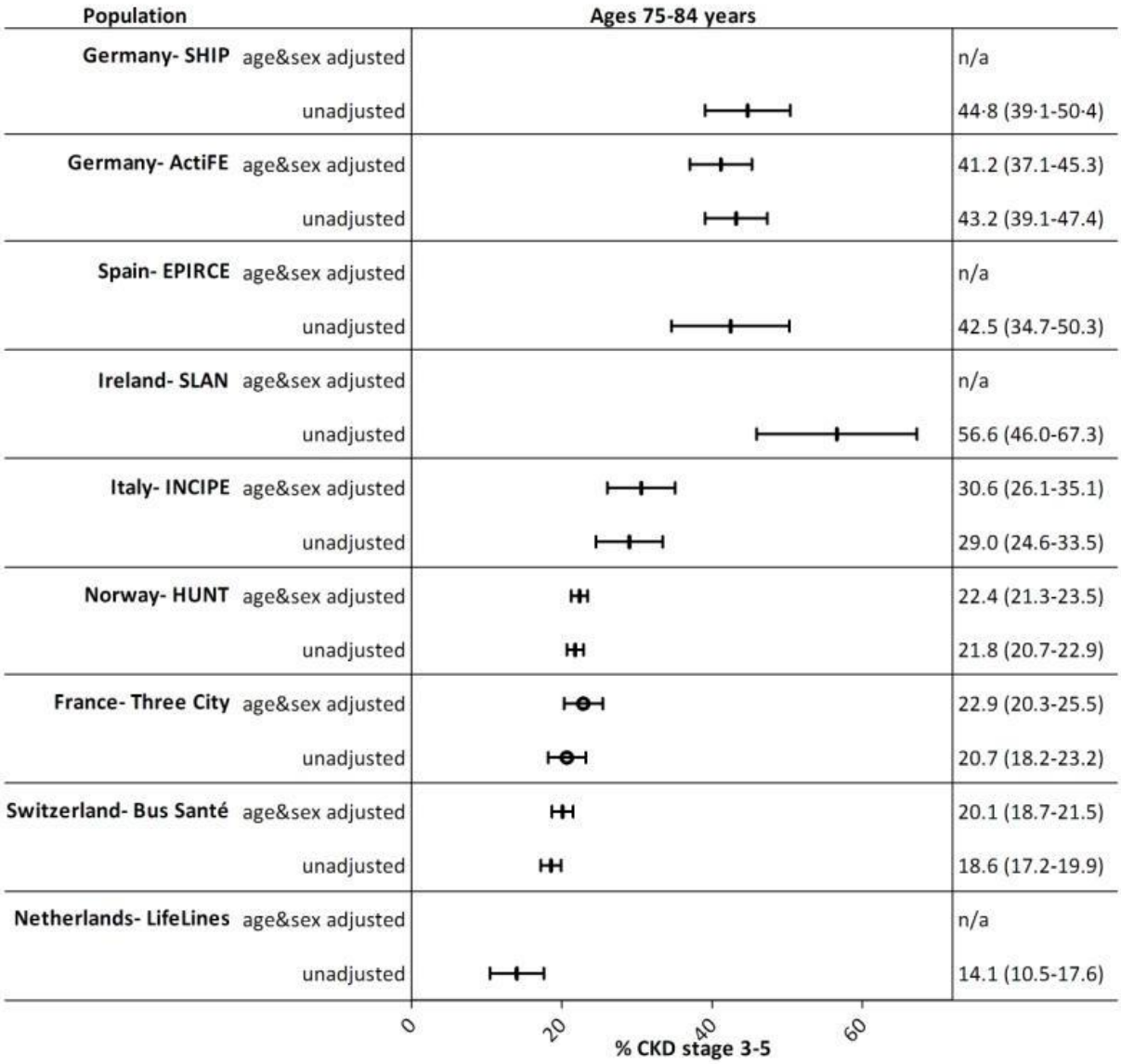
d: by obesity status



| studies using Jaffe method. HT= hypertension.

Figure 4.4: CKD stage 3-5 prevalence (95%CI) in age group 75-84 years, in studies using IDMS traceable creatinine.

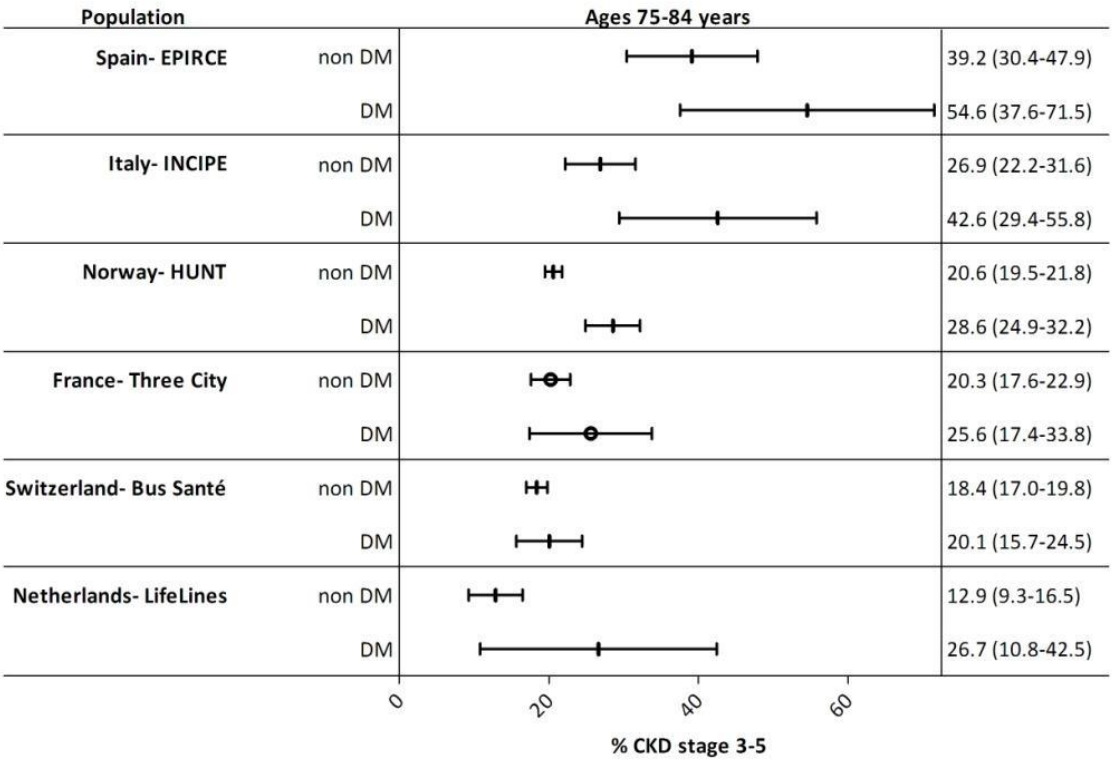
a: overall population



Adjusted prevalence was age and sex adjusted to the EU27 population 2005. Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus.

Figure 4.4: CKD stage 3-5 prevalence (95%CI) in age group 75-84 years, in studies using IDMS traceable creatinine.

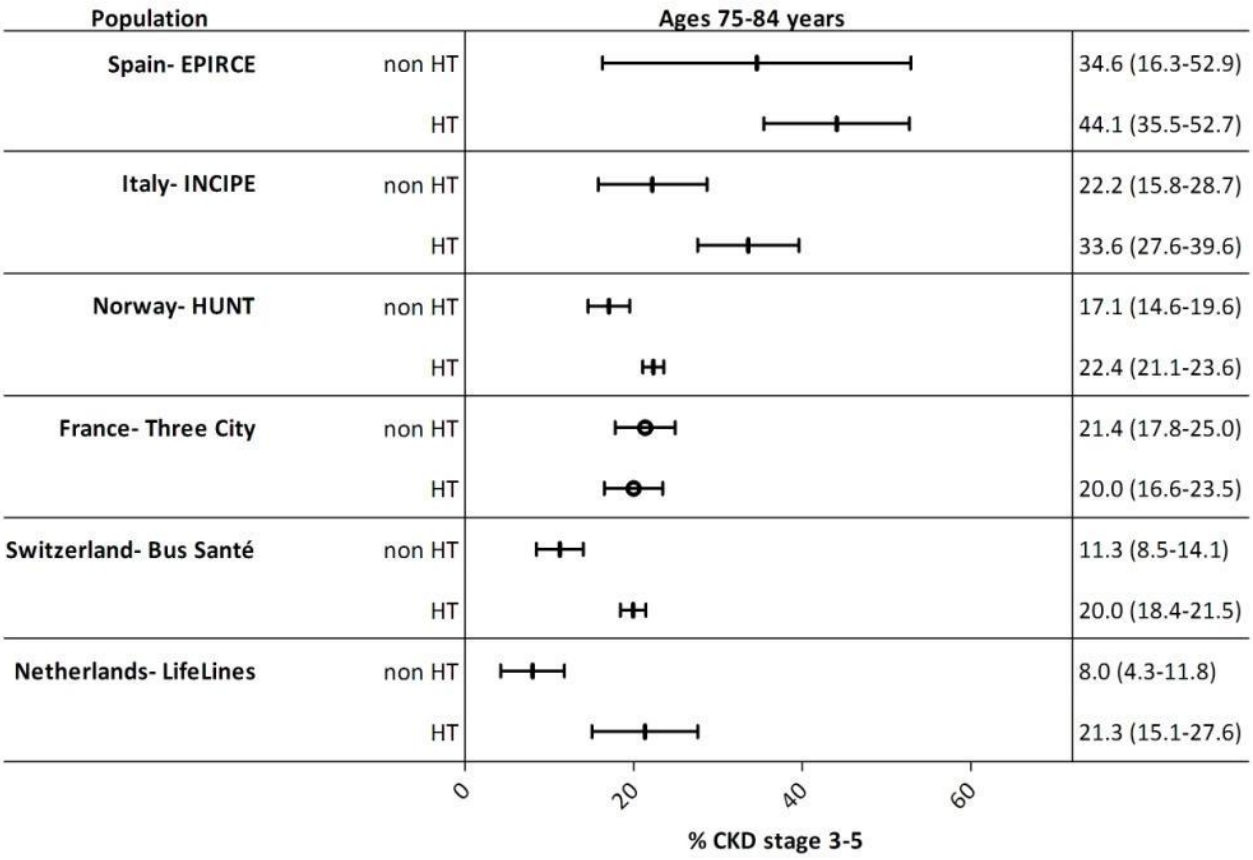
b: by diabetic status



Θ studies using enzymatic method, | studies using Jaffe method. DM = diabetes mellitus.

Figure 4.4: CKD stage 3-5 prevalence (95%CI) in age group 75-84 years, in studies using IDMS traceable creatinine.

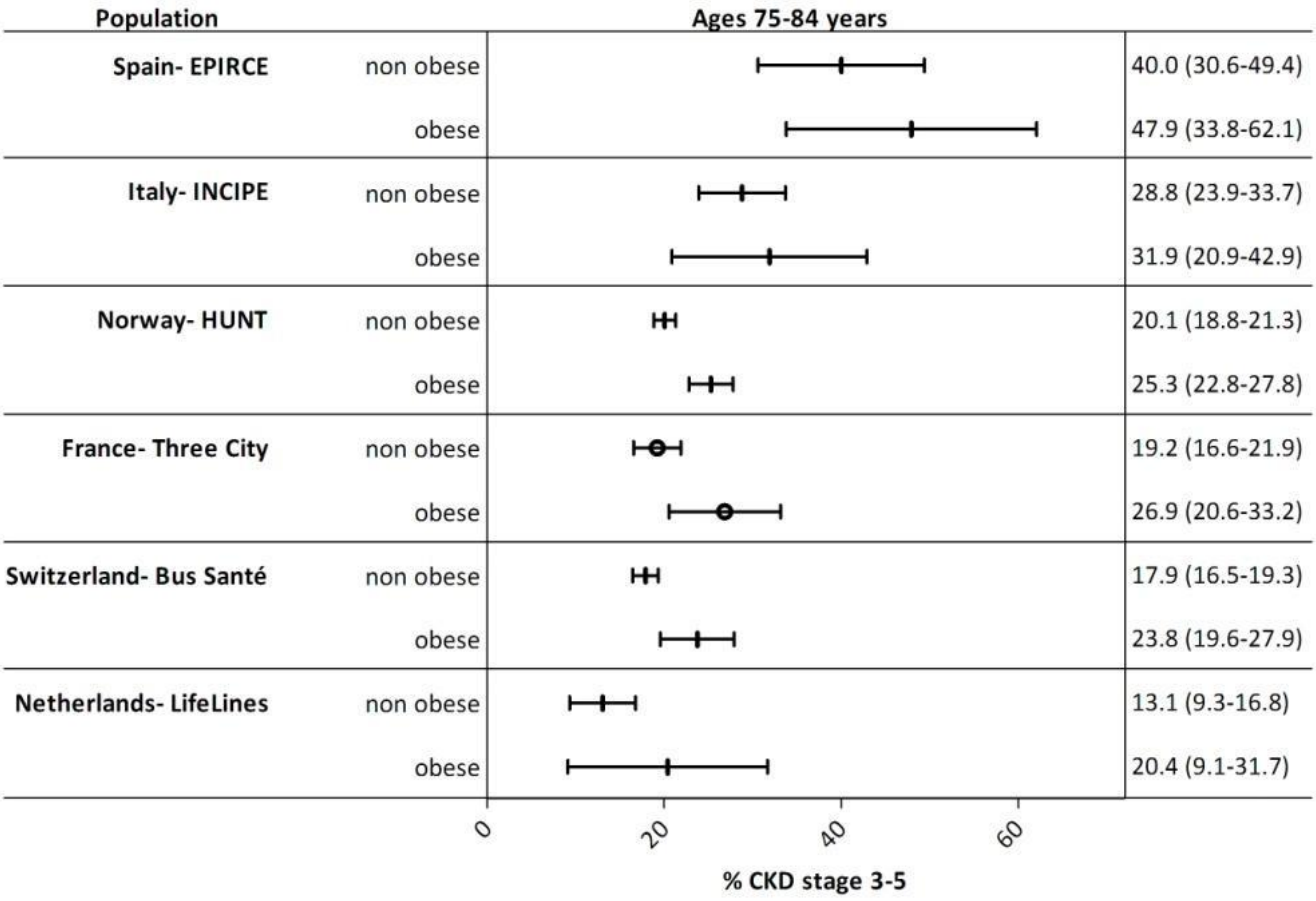
c: by hypertensive status



Θ studies using enzymatic method, | studies using Jaffe method. HT= hypertension.

Figure 4.4: CKD stage 3-5 prevalence (95%CI) in age group 75-84 years, in studies using IDMS traceable creatinine.

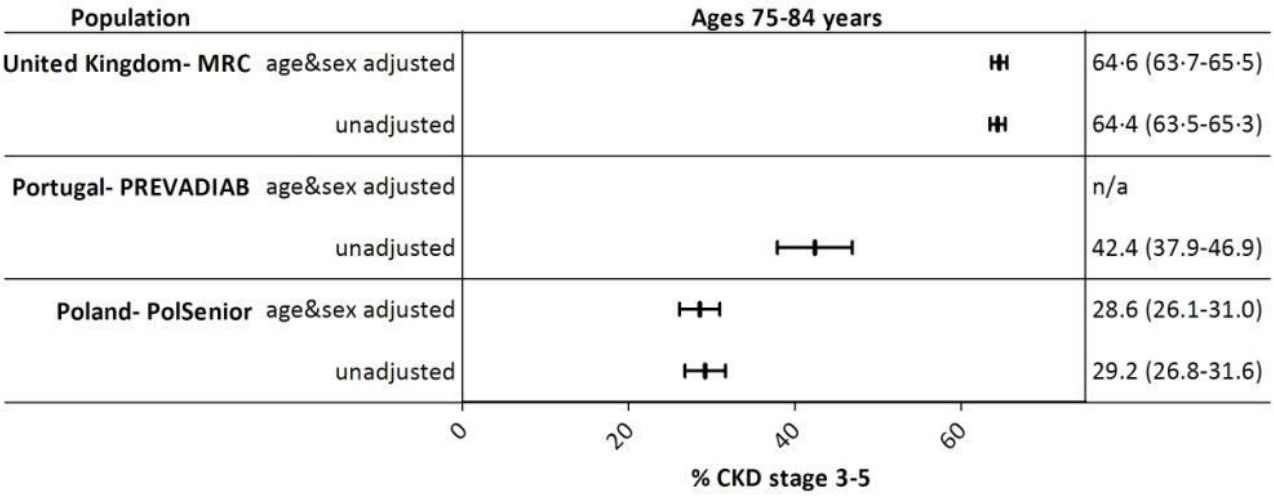
d: by obesity status



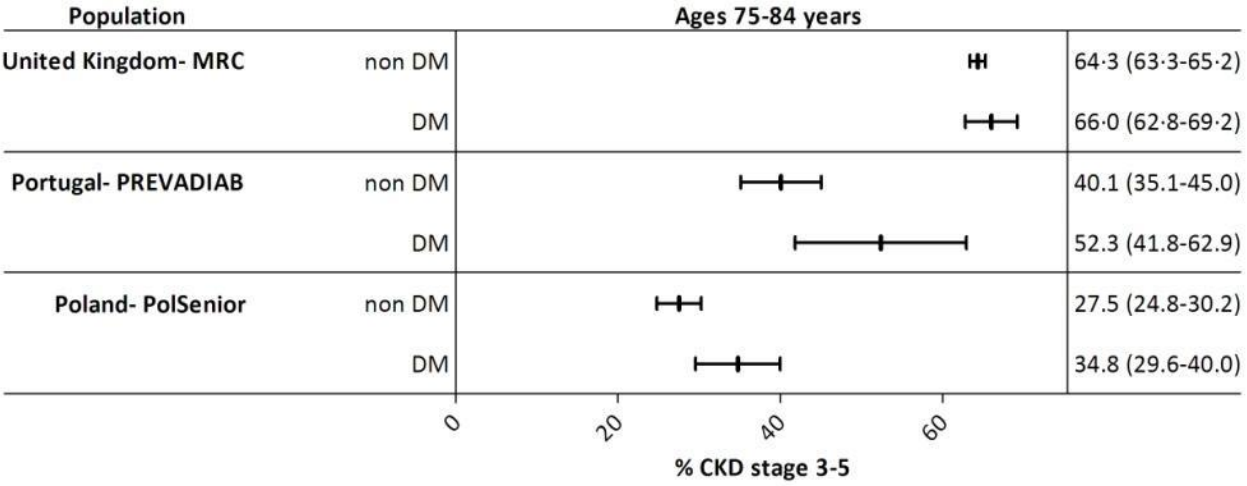
Θ studies using enzymatic method, | studies using Jaffe method.

Figure 4.4: CKD stage 3-5 prevalence (95%CI) in age group 75-84 years, in studies using non IDMS traceable creatinine.

a: overall population



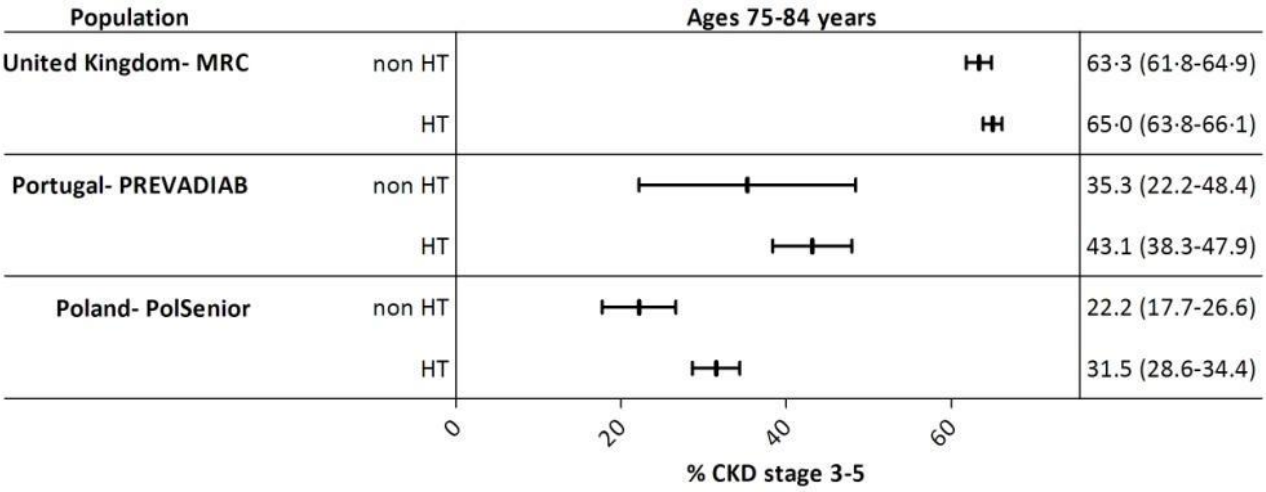
b: by diabetic status



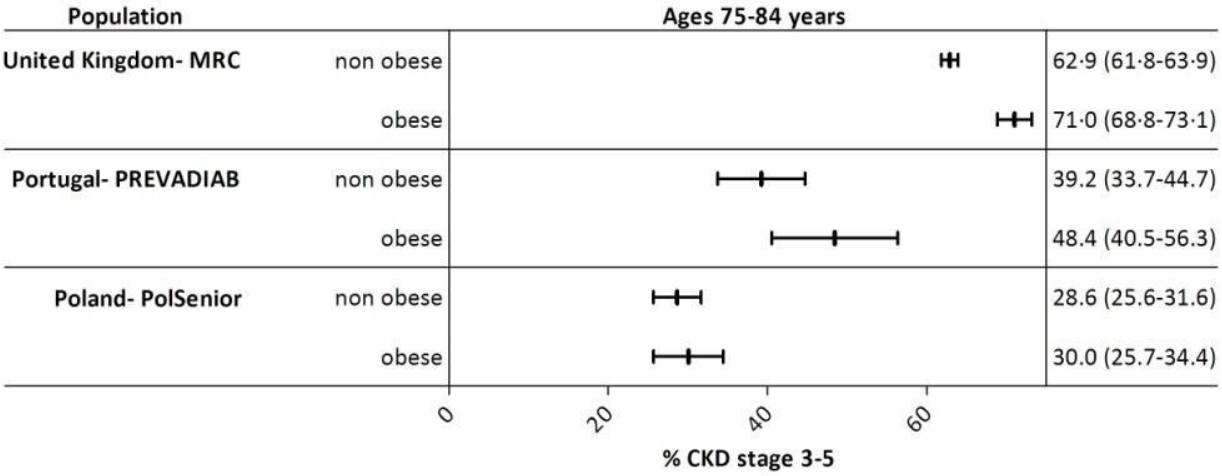
Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. DM = diabetes mellitus. | studies using Jaffe method. MRC study results are comprised of a combination of enzymatic and Jaffe results, for investigators did not distinguish results by measurement method.

Figure 4.4: CKD stage 3-5 prevalence (95%CI) in age group 75-84 years, in studies using non IDMS traceable creatinine.

c: by hypertensive status



d: by obesity status



Adjusted prevalence was age and sex adjusted to the EU27 population of 2005. HT= hypertension. | studies using Jaffe method. MRC study results are comprised of a combination of enzymatic and Jaffe results, for investigators did not distinguish results by measurement method.

Appendix Tables

Table 1.1: Study population characteristics and laboratory methods of studies including participants aged 20 years and older.

Country	Germany	Netherlands		Norway	Spain	Finland	Italy		Portugal
Study / Characteristics	SHIP	LifeLines	PREVEND	HUNT	EPIRCE	FINRISK	MATISS	VIP	PREVADIAB
Data on CKD stage	**CKD stage 1-5**					**CKD stage 3-5**			
N study pop	4308	94133	8534	65252	2746	4228	3780	1190	5000
Sample collection years	1997-2001	2007-2013	1997-1998	1995-1997	2004-2008	2007	1993-1996	1998-1999 2008-2009	2008
Mean age, years (SD)	49.8(16.4)	44.6 (12.5)	48.6 (12.3)	50.3 (17.3)	49.3 (16.3)	49.7 (12.5)	49.2(14.1)	49.7 (14.2)	46.2 (18.3)
Females (%)	50.9	58.7	54.6	53.22	58.2	54.3	48.8	49.9	59.8
Caucasian ethnicity (%)	100%	n/a	96%	97%	99%	99%	n/a	100%	n/a
DM (%)	11,0	2.4	2.5	3.4	10.3	8.4	5.1	7.4	7.6
HT (%)	52.5	18.2	27.8	43.7	41.2	43.3	15.6	34.7	53.4
Smokers (%)	30.3	18.8	31.2	29.2	25.3	18.8	27.6	24.2	n/a
mean SBP, mmHg (SD)	136 (21)	126 (15)	126 (19)	138 (22)	131 (22)	132 (19)	140 (23)	129 (19)	135 (26)
mean DBP, mmHg (SD)	83 (11)	74 (9)	73 (9)	80 (12)	79 (12)	79 (11)	85 (13)	78 (10)	85 (34)
Mean BMI (kg/m²) (SD)	27.3 (4.8)	26.1 (4.3)	26.1 (4.2)	26.4 (4.10)	27.5 (5.3)	27.1 (4.9)	27.7 (4.5)	28.3 (6.0)	27.6 (5.0)
ARB use (%)	1.7	n/a	n/a	n/a	5,0	n/a	n/a	1.8	n/a
ACEi use (%)	12.8	n/a	n/a	n/a	6.4	n/a	n/a	3.5	n/a
ACEi/ARB use (%)	n/a	n/a	4.4	n/a	n/a	n/a	n/a	n/a	n/a
Creatinine method	Jaffe	enzymatic	enzymatic	Jaffe	Jaffe	enzymatic	enzymatic	Jaffe	Jaffe
IDMS traceable creatinine?	yes	yes	no	yes	yes	yes	yes	no	no
Albuminuria method	immunoassay	immunoassay	immunoassay	immunoassay	immunoassay	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	82.2 (17.0)	96.5 (15.0)	83.6 (14.9)	97.6 (19.5)	86.6 (18.0)	89.5 (15.0)	100.4 (14.8)	83.7 (16.3)	85.0 (18.2)
Mean eGFR by MDRD (SD)	79.4 (15.1)	93.4 (17.1)	80.1 (13.8)	100.1 (24.2)	84.1 (17.7)	86.9 (15.0)	103.4 (19.7)	80.5 (14.5)	81.5 (16.3)
Median ACR mg/g (25p-75p)	8.4 (5.1-17.3)	2.2 (1.3-4.2)	5.5 (4.1-8.3)	10.3 (7.4-14.5)	4.6 (2.5-8.6)	n/a	n/a	n/a	n/a

DM = diabetes mellitus, HT= hypertension, SBP= systolic blood pressure, DBP= diastolic blood pressure, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, IDMS =isotope dilution mass spectrometry, eGFR= estimated glomerular filtration rate, uACR= urinary albumin-to-creatinine ratio**.**

Table 1.2: Study population characteristics and laboratory methods of studies including participants aged 65 years and older (Part a).

Country	Finland	France		Germany			Ireland	Italy		
Study / Characteristics	FINRISK	3C	MONALISA	ActiFE	ESTHER	SHIP	SLAN	INCIPE	MATISS	VIP
age range	**ages 65+**									
N study pop	501	8705	1243	1506	3428	984	386	1301	626	235
Sample collection years	2007	2004?	2006-2007	2009-2010	2000-2002	1997-2001	2006-2007	2006-2007	1993-1996	1998-99 2008-09
Mean age, years (SD)	68.9 (2.7)	77.9(4.8)	70 (2.9)	75.7 (6.6)	72.4 (4.5)	71.6 (4.4)	71.4 (5.2)	72.8 (5.7)	69.9 (3.7)	69.4 (3.0)
Females (%)	49.9	63.4	49.6	43.4	53.4	44.5	50.3	52.3	49.7	49.8
Caucasian ethnicity (%)	99%	*	*	100%	n/a	100%	96%	100%	n/a	100%
DM (%)	14.8	13.1	10.7	13.5	28.2	25.4	9.6	12.7	10.2	15.7
HT (%)	77.0	75.4	47.9	53.5	83.7	80.6	74.8	53.8	41.0	52.3
Smokers (%)	n/a	5.5	5.9	9.3	6.0	10.9	13.2	8.1	n/a	12.8
mean SBP, mmHg (SD)	146 (22)	136 (20)	148 (21)	143 (12)	140 (19)	149 (21)	147 (21)	147 (19)	159 (25)	137 (24)
mean DBP, mmHg (SD)	79 (11)	75 (11)	83 (10)	80 (11)	81 (9)	84 (12)	81 (16)	86 (10)	86 (13)	78 (11)
Mean BMI (kg/m²) (SD)	28.3 (4.5)	26.0 (4.1)	27.8 (4.6)	27.6 (4.2)	28.3 (4.6)	28.6 (4.3)	27.8 (4.2)	27.2 (4.4)	29.0 (4.6)	29.4 (4.8)
ARB use (%)	n/a	16.5	22.7	14.7	21.1	3.6	n/a	n/a	n/a	2.6
ACEi use (%)	n/a	14.8	12.6	19.0	32.84	31.6	n/a	n/a	n/a	6.0
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Creatinine method	enzymatic	Jaffe	Jaffe	Jaffe	Jaffe	Jaffe	Jaffe	Jaffe	enzymatic	Jaffe
IDMS traceable creatinine?	Yes	yes	no	yes	no	yes	yes	yes	yes	no
Albuminuria method	n/a	immunoassay	n/a	immunoassay	n/a	immunoassay	immunoassay	immunoassay	n/a	n/a
Mean eGFR by CKD-EPI (SD)	75.4 (12.7)	71.2 (14.2)	67.4 (11.9)	65.4 (15)	67.9 (14.1)	66.3 (12.9)	69.6 (16.4)	74.2 (15.2)	84.0 (12.6)	68.5 (12.5)
Mean eGFR by MDRD (SD)	78.0 (14.4)	77.1 (17.2)	69.4 (12.4)	69.2 (16)	71 (15.2)	69.0 (13.5)	73.3 (19.2)	79.6 (19.6)	92.5 (20.1)	70.2 (12.5)
Median ACR mg/g (25p-75p)	n/a	5.5 (2.6-11.4)	n/a	5.9 (3.9-11.9)	n/a	13.8 (7.5-32.3)	12.8 (6.7)	only dipstick +	n/a	n/a

*National legislation prohibiting collection of ethnicity data. [1]uACR data based on subgroup population N=1258. Albuminuria was collected 4 years after baseline in a random sample from 1 city. DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, IDMS =isotope dilution mass spectrometry, eGFR= estimated glomerular filtration rate, uACR= urinary albumin-to-creatinine ratio.

Table 1.2: Study population characteristics and laboratory methods of studies including participants aged 65 years and older (Part b).

Country	Netherlands		Norway	Poland	Portugal	Spain	Sweden	Switzerland	United Kingdom
Study / Characteristics	LifeLines	PREVEND	HUNT	PolSenior	PREVADIAB	EPIRCE	PIVUS	Bus Santé	MRC
age range	**ages 65+**								
N study pop	6983	1207	15658	4150	1016	578	1016	1435	13179
Sample collection years	2007-2013	1997-1998	1995-1997	2008-2011	2008	2004-2008	2001-2004	2005-2008	1994-1999
Mean age, years (SD)	69.9 (4.6)	69.1 (3.0)	74.3 (6.3)	79.0 (8.6)	73.1 (4.9)	72.5 (5.4)	70.2 (0.2)	71.6 (4.9)	81.2(4.7)
Females (%)	54.1	52.1	54.9	47.8	66.5	58.0	50.1	46.3	61.14
Caucasian ethnicity (%)	n/a	96%	97%	100%	n/a	99%	100%	n/a	n/a
DM (%)	8.6	6.9	8.9	23.0	18.6	24.4	11.7	7.3	7.9
HT (%)	44.5	64.6	79.4	73.2	86.6	79.0	72.1	40.3	63.5
Smokers (%)	7.4	n/a	19.6	9.5	n/a	6.8	10.5	8.3	11.5
mean SBP, mmHg (SD)	138 (18)	143 (21)	156 (24)	145 (22)	156 (26)	149 (22)	150 (23)	138 (21)	149 (22)
mean DBP, mmHg (SD)	76 (9)	77 (9)	85 (13)	83 (11)	89 (34)	81 (11)	79 (10)	76 (10)	74 (13)
Mean BMI (kg/m²) (SD)	27.2 (3.9)	27.1 (3.8)	27.2 (4.2)	28.1 (5.1)	28.8 (4.6)	29.2 (5.1)	26.7 (4.36)	26.2 (4.1)	26.1 (4.18)
ARB use (%)	n/a	n/a	n/a	7.1	n/a	14.7	8.27	n/a	n/a
ACEi use (%)	n/a	n/a	n/a	40.9	n/a	14.7	8.46	n/a	n/a
ACEi/ARB use (%)	n/a	10.7	n/a	n/a	n/a	n/a	n/a	n/a	9.16
Creatinine method	enzymatic	enzymatic	Jaffe	Jaffe	Jaffe	Jaffe	Jaffe	Jaffe	both
IDMS traceable creatinine?	yes	no	yes	no	no	yes	yes	yes	both
Albuminuria method	immunoassay	immunoassay	immunoassay	immunoassay	n/a	immunoassay	n/a	n/a	dipstick
Mean eGFR by CKD-EPI (SD)	77.7 (12.6)	69.4 (12.3)	76.3 (15.3)	68.8 (17.5)	65.3 (14.1)	68.9 (15.5)	75.5 (14.9)	79.1 (11.7)	53.8 (14.3)
Mean eGFR by MDRD (SD)	81.5 (15.8)	71.3 (13.2)	83.5 (21.9)	76.0 (22.2)	68.0 (14.8)	72.1 (17.1)	81.0 (20.6)	83.9 (14.8)	59.0 (38.8)
Median ACR mg/g (25p-75p)	2.6 (1.4-5.3)	7.5 (5.4-13.3)	15.4 (10.7-21.6)	5.1 (2.0-16.6)	n/a	7.0 (3.0-13.4)	n/a	n/a	n/a

DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, IDMS =isotope dilution mass spectrometry, eGFR= estimated glomerular filtration rate, uACR= urinary albumin-to-creatinine ratio**.**

Table 2: Adjusted and unadjusted prevalence of CKD stage 1-5, CKD stage 3-5 and albuminuria >30mg/g in in the population aged 20-74 years**.**

Country	**Finland**	**Germany**	**Italy**		**Netherlands**		**Norway**	**Portugal**	**Spain**
Study / Characteristics	*FINRISK	*SHIP	*MATISS	VIP	*LIFELINES	PREVEND	*HUNT	PREVADIAB	*EPIRCE
Age range	ages 20+								
% CKD 1-5 (95%CI), Crude	n/a	19.4 (18.1-20.7)	n/a	n/a	3.9 (3.7-4.1)	8.9 (8.3-9.5)	3.7 (3.5-3.9)	n/a	10.7 (9.4-12.0)
% CKD 1-5 (95%CI), Adjusted	n/a	17.3 (16.5-18.1)	n/a	n/a	4.8 (4.8-4.8)	8.3 (8.1-8.5)	3.3 (3.3-3.3)	n/a	9.8 (9.0-10.6)
N of missings (%)	n/a	514 (11.9%)	n/a	n/a	45766 (48.4%)	96 (1.1%)	0	n/a	471 (17.1%)
% CKD 3-5 (95%CI), Crude	2.6 (2.1-3.1)	7.4 (6.5-8.2)	1.2 (0.8-1.5)	6.8 (5.4-8.2)	0.8 (0.8-0.9)	5.3 (4.8-5.8)	1.9 (1.8-2.0)	5.2 (4.6-5.9)	4.7 (3.9-5.5)
% CKD 3-5 (95%CI), Adjusted	2.4 (2.0-2.9)	5.9 (5.2-6.6)	1.0 (0.7-1.3)	4.9 (3.6-6.1)	1.3 (1.2-1.4)	4.8 (4.4-5.3)	1.7 (1.6-1.8)	5.3 (4.6-5.9)	4.0 (3.2-4.8)
N of missings (%)	0	21 (0.5%)	57 (1.5%)	0	383 (0.4%)	58 (0.7%)	0	0	0

Adjusted prevalence estimates are age and sex adjusted to the EU27 population of 2005 for the age range 20-74 years. *studies using IDMS traceable creatinine
Studies not covering the entire age range are not included in this table.

Table 3: Diabetic population: ages 20 years and older (part a)

Country / Study / Characteristics	Finland	Germany	Italy		Netherlands		Norway	Portugal	Spain
	FINRISK	SHIP	MATISS	VIP	PREVEND	LifeLines	HUNT	PREVADIAB	EPIRCE
Age range	ages 20+								
N study pop	354	471	192	88	211	2 238	2 192	375	282
Mean age, years (SD)	55.7 (11.1)	63.7 (11.3)	59.1 (10.3)	61.6 (9.5)	60.8 (9.3)	55.6 (12.3)	66.0 (14.4)	60.7 (16.6)	63.0 (11.4)
Females (%)	56.2	43.1	47.9	46.6	53.5	53.9	50.7	54.9	50,0
HT (%)	62.1	84.1	36.5	52.3	71.0	33.3	79.11	83.8	74.1
Smokers (%)	n/a	16.8	18.2	18.2	n/a	15.1	19.4	n/a	14.0
mean Systolic Blood pressure, mmHg (SD)	138 (21)	150 (20)	157 (25)	138 (21)	143 (21)	133 (17)	154 (25)	154 (26)	146 (22)
mean Diastolic Blood pressure, mmHg (SD)	80 (11)	84 (12)	89 (13)	81 (10)	78 (10)	75 (9)	85 (14)	90 (33)	82 (11)
Mean BMI (kg/m²) (SD)	30.4 (5.8)	30.1 (5.0)	30.4 (5.1)	31.1 (5.1)	29.2 (5.2)	30.0 (5.5)	29.0 (4.9)	30.5 (5.2)	30.7 (5.3)
ARB use (%)	n/a	4.9	n/a	1.1	n/a	n/a	n/a	n/a	13.8
ACEi use (%)	n/a	36.7	n/a	5.7	n/a	n/a	n/a	n/a	18.1
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	86.1 (16.4)	73.2 (17.3)	94.3 (16.7)	75.2 (13.5)	78.5 (15.7)	91.0 (17.0)	82.5 (20.4)	75.6 (21.1)	77.9 (17.7)
Mean eGFR by MDRD (SD)	85.8 (17.8)	74.1 (17.0)	104.5 (27.6)	74.6 (11.9)	78.6 (16.1)	93.1 (21.1)	87.9 (24.3)	75.6 (19.7)	79.2 (18.7)
Median ACR mg/g (25p-75p)	n/a	16.7 (8.3-42.5)	n/a	n/a	10.6 (6.2-20.2)	3.1 (1.5-8.0)	15.6 (7.1-33.9)	n/a	7.0 (2.9-14.9)

HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 3: Diabetic population: ages 45 years and older (part b)

Country / Study / Characteristics	France MONALISA	Ireland SLAN	Italy INCIPE	Switzerland BusSanté
Age range	ages 45+			
N study pop	267	89	287	200
Mean age, years (SD)	63.7 (8.2)	62.8 (10.2)	66.6 (9.3)	64.0 (10.3)
Females (%)	35.6	37.1	38.7	26.0
HT (%)	59.2	80.7	67.6	60.0
Smokers (%)	11.2	20.2	12.9	10.0
mean Systolic Blood pressure, mmHg (SD)	150 (22)	147 (20)	147 (20)	136 (25)
mean Diastolic Blood pressure, mmHg (SD)	84 (10)	81 (11)	86 (10)	78 (11)
Mean BMI (kg/m²) (SD)	31.3 (6.1)	30.2 (4.9)	29.6 (5.6)	28.7 (5.0)
ARB use (%)	34.8	n/a	n/a	n/a
ACEi use (%)	23.2	n/a	n/a	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	72.4 (15.0)	75.4 (20.1)	78.1 (17.3)	84.0 (14.9)
Mean eGFR by MDRD (SD)	73.2 (14.9)	76.3 (20.1)	81.7 (20.1)	87.4 (17.0)
Median ACR mg/g (25p-75p)	n/a	12.8 (6.4-25.8)	only for dipstick +	n/a

HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 3: Diabetic population: ages 65 years and older (part c)

Country / Study / Characteristics	France	Germany		Poland	Sweden	UK
	Three City	ActiFE	ESTHER	PolSenior	PIVUS	MRC
Age range	**ages 65+**					
N study pop	839	204	1 237	1 039	119	1 042
Mean age, years (SD)	74.6 (5.4)	76.7 (6.6)	70.5 (6.3)	76.2 (10.1)	70.1 (0.1)	80.9 (4.6)
Females (%)	49.7	34.3	48.4	50.2	42.0	52.5
HT (%)	90.2	76.5	91.9	80.4	83.2	65.0
Smokers (%)	6.0	13.7	9.2	10.8	10.9	9.4
mean Systolic Blood pressure, mmHg (SD)	153 (22)	144 (12)	140 (20)	147 (22)	155 (24)	149 (22)
mean Diastolic Blood pressure, mmHg (SD)	83 (12)	80 (12)	79 (10)	84 (11)	80 (12)	73 (12)
Mean BMI (kg/m^2) (SD)	27.6 (4.3)	29.2 (4.6)	30.6 (5.5)	30.3 (5.4)	28.7 (4.9)	27.2 (4.5)
ARB use (%)	11.2	18.5	28.7	10.5	21.9	n/a
ACEi use (%)	28.0	22.5	42.6	51.3	21.0	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	17.6
Mean eGFR by CKD-EPI (SD)	76.5 (14.3)	62.0 (16.4)	68.2 (15.9)	69.2 (19.6)	74.2 (15.4)	53.4 (15.0)
Mean eGFR by MDRD (SD)	83.7 (19.5)	66.3 (17.4)	70.9 (17.1)	75.4 (23.7)	78.9 (19.3)	58.1 (16.4)
Median ACR mg/g (25p-75p)	10.4 (5.2-31.6)*	8.0 (4.7-26.8)	n/a	6.3 (2.3-24.2)	n/a	n/a

HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 4: Hypertensive population: ages 20 years and older (part a)

Country / Study / Characteristics	Finland	Germany	Italy		Netherlands		Norway	Portugal	Spain
	FINRISK	SHIP	MATISS	VIP	PREVEND	LifeLines	HUNT	PREVADIAB	EPIRCE
Age range	ages 20+								
N study pop	1 832	2 252	590	413	2 389	17 168	28 301	2 672	1 128
Mean age, years (SD)	55.7 (10.8)	56.9 (14.2)	61.7 (9.7)	55.8 (12.7)	57.2 (11.5)	51.5 (12.6)	59.7 (15.8)	53.9 (17.8)	59.5 (14.1)
Females (%)	46.3	40.8	66.1	47.9	48.2	42.6	48.5	58.2	50.3
DM (%)	12.0	17.7	11.9	11.1	6.3	4.4	6.1	11.8	18.6
Smokers (%)	n/a	23.0	12.2	18.2	n/a	17.0	24.4	n/a	15.8
mean Systolic Blood pressure, mmHg (SD)	146 (17)	151 (18)	164 (24)	147 (17)	146 (18)	149 (11)	156 (19)	151 (24)	151 (18)
mean Diastolic Blood pressure, mmHg (SD)	85 (11)	90 (11)	94 (14)	85 (9)	80 (9)	84 (9)	89 (12)	94 (44)	87 (11)
Mean BMI (kg/m²) (SD)	28.8 (5.2)	29.0 (4.6)	30.5 (4.6)	29.7 (7.6)	27.9 (4.3)	27.9 (4.5)	27.6 (4.2)	29.0 (5.0)	29.5 (5.2)
ARB use (%)	n/a	3.2	n/a	5.3	n/a	n/a	n/a	n/a	12.1
ACEi use (%)	n/a	22.4	n/a	9.9	n/a	n/a	n/a	n/a	15.4
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	85.7 (15.1)	77.8 (16.8)	89.7 (15.3)	80.0 (16.4)	77.0 (15.4)	91.9 (15.1)	88.8 (19.0)	79.6 (18.6)	79.2 (18.2)
Mean eGFR by MDRD (SD)	85.0 (16.0)	76.8 (15.7)	95.7 (22.0)	78.6 (15.5)	75.8 (14.7)	90.9 (17.3)	92.8 (23.3)	77.9 (16.7)	79.4 (18.6)
Median ACR mg/g (25p-75p)	n/a	10.7 (6.9-3.7)	n/a	n/a	6.9 (4.7-12.3)	2.8 (1.5-5.8)	13.3 (9.4-18.5)	n/a	5.7 (2.9-11.2)

DM = diabetes mellitus, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 4: Hypertensive population: ages 45 years and older (part b)

Country / Study / Characteristics	France	Ireland	Italy	Switzerland
	MONALISA	SLAN	INCIPE	Bus Santé
Age range	ages 45+			
N study pop	1 134	659	1 389	1 094
Mean age, years (SD)	63.6 (8.5)	62.4 (9.8)	64.6 (10.5)	64.7 (9.9)
Females (%)	47.7	46.4	49.3	41.8
DM (%)	13.9	10.8	14.0	11.0
Smokers (%)	7.4	15.6	12.1	9.7
mean Systolic Blood pressure, mmHg (SD)	150 (20)	152 (18)	148 (19)	140 (21)
mean Diastolic Blood pressure, mmHg (SD)	86 (11)	86 (14)	89 (10)	80 (11)
Mean BMI (kg/m²) (SD)	29.4 (5.)	28.9 (4.5)	28.3 (6.6)	27.7 (4.0)
ARB use (%)	44.0	n/a	n/a	n/a
ACEi use (%)	23.4	n/a	n/a	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	69.9 (14.0)	77.6 (17.9)	79.5 (16.9)	83.0 (14.8)
Mean eGFR by MDRD (SD)	70.3 (13.3)	78.9 (19.4)	82.7 (20.5)	85.9 (16.7)
Median ACR mg/g (25p-75p)	n/a	11.3 (5.8-22.6)	41.2 (17.4-125.0)	n/a

DM = diabetes mellitus, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 4: Hypertensive population: ages 65 years and older (part c)

Country	France	Germany		Poland	Sweden	UK
Study / Characteristics	Three City	ActiFE	ESTHER	PolSenior	PIVUS	MRC
Age range	**ages 65+**					
N study pop	6726	806	3 709	3 396	732	8 297
Mean age, years (SD)	74.8 (5.6)	76.2 (6.5)	70.1 (6.3)	76.0 (10.4)	70.1 (0.2)	81.2 (4.6)
Females (%)	62.9	42.6	53.1	50.9	51.9	64.0
DM (%)	11.3	19.4	30.7	24.8	13.5	8.1
Smokers (%)	5.3	7.6	7.5	11.3	10.1	11.2
mean Systolic Blood pressure, mmHg (SD)	153 (20)	145 (11)	142 (19)	151 (21)	159 (19)	162 (16)
mean Diastolic Blood pressure, mmHg (SD)	85 (11)	81 (11)	82 (10)	86 (11)	82 (9)	78 (12)
Mean BMI (kg/m²) (SD)	26.1 (4.1)	28.5 (4.2)	29.1 (4.9)	28.8 (5.0)	27.3 (4.4)	26.3 (4.2)
ARB use (%)	11.4	16.3	25.1	9.0	11.1	n/a
ACEi use (%)	17.9	22.8	38.2	48.9	11.1	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	9.2
Mean eGFR by CKD-EPI (SD)	74.6 (13.6)	63.8 (15.6)	69.1 (14.6)	70.6 (18.2)	75.0 (15.0)	53.9 (14.2)
Mean eGFR by MDRD (SD)	80.0 (17.0)	67.8 (16.3)	71.5 (15.5)	76.7 (22.1)	80.1 (20.2)	59.4 (47.2)
Median ACR mg/g (25p-75p)	5.8 (2.6-12.6)*	6.5 (4.0-13.7)	n/a	4.9 (1.9-15.6)	n/a	n/a

DM = diabetes mellitus, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 5: Obese population: ages 20 years and older (part a)

Country / Study / Characteristics	Finland	Germany	Italy		Netherlands		Norway	Portugal	Spain
	FINRISK	SHIP	MATISS	VIP	LifeLines	PREVEND	HUNT	PREVADIAB	EPIRCE
	ages 20+								
N study pop	930	1 099	993	368	14 805	1 165	10 645	1 402	723
Mean age. years (SD)	53.3 (11.6)	54.9 (14.3)	54.9 (11.7)	54.0 (12.6)	46.9 (11.9)	52.7 (12.0)	54.6 (16.3)	50.7 (17.4)	54.5 (14.6)
Females (%)	55.5	51.7	63.4	54.9	62.3	61.8	59.4	63.5	56.6
DM (%)	n/a	19.0	8.9	12.2	6.6	n/a	7.4	13.5	19.1
HT (%)	n/a	72.8	29.2	44.6	29.5	n/a	65.1	70.7	62.1
Smokers (%)	n/a	21.9	15.9	19.3	17.0	n/a	22.7	n/a	18.7
mean Systolic Blood pressure, mmHg (SD)	139 (19)	144 (21)	151 (23)	134 (20)	132 (15)	135 (19)	147 (23)	143 (26)	140 (21)
mean Diastolic Blood pressure, mmHg (SD)	83 (11)	87 (12)	92 (13)	80 (10)	77 (9)	76 (9)	85 (13)	90 (33)	84 (11)
Mean BMI (kg/m²) (SD)	34.2 (4.2)	33.5 (3.3)	33.4 (3.2)	34.3 (6.7)	33.6 (3.6)	33.3 (3.3)	33.1 (3.1)	33.9 (3.5)	34.2 (4.3)
ARB use (%)	n/a	3.02	n/a	1.4	n/a	n/a	n/a	n/a	10.1
ACEi use (%)	n/a	23.28	n/a	5.2	n/a	n/a	n/a	n/a	12.3
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	88.1 (15.4)	77.9 (17.1)	96.6 (14.5)	80.8 (16.2)	95.3 (15.5)	80.5 (15.3)	92.2 (20.0)	81.3 (18.2)	82.6 (17.9)
Mean eGFR by MDRD (SD)	86.7 (16.3)	76.1 (15.4)	101.3 (20.6)	78.5 (14.9)	93.0 (17.7)	77.7 (13.8)	94.6 (24.0)	78.5 (16.0)	81.3 (17.7)
Median ACR mg/g (25p-75p)	n/a	9.9 (5.6-23.4)	n/a	n/a	2.5 (1.4-5.2)	6.2 (4.4-9.9)	11.8 (8.4-16.6)	n/a	5.1 (2.6-11.2)

DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 5: Obese population: ages 45 years and older (part b)

Country / Study / Characteristics	France	Ireland	Italy	Switzerland
	MONALISA	SLAN	INCIPE	Bus Santé
	ages 45 +			
N study pop	985	339	755	639
Mean age, years (SD)	58.7 (10.5)	59.6 (9.1)	61.1 (10.4)	60.1 (10.4)
Females (%)	49.7	52.5	n/a	45.4
DM (%)	14.0	12.1	14.4	11.0
HT (%)	45.8	71.3	54.6	43.7
Smokers (%)	9.9	12.0	16.4	10.8
mean Systolic Blood pressure, mmHg (SD)	145 (20)	145 (19)	146 (20)	134 (22)
mean Diastolic Blood pressure, mmHg (SD)	86 (10)	85 (11)	90 (11)	81 (11)
Mean BMI (kg/m²) (SD)	34.1 (4.0)	33.6 (3.2)	33.7 (7.0)	33.1 (3.1)
ARB use (%)	21.8	n/a	n/a	n/a
ACEi use (%)	11.8	n/a	n/a	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	74.3 (14.1)	79.4 (17.2)	83.1 (16.8)	87.4 (13.6)
Mean eGFR by MDRD (SD)	73.4 (13.2)	79.5 (18.1)	85.7 (20.9)	88.8 (15.4)
Median ACR mg/g (25p-75p)	n/a	9.6 (5.1-18.1)	only for dipstick +	n/a

DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 5: Obese population: ages 65 years and older (part c)

Country / Study / Characteristics	France	Germany		Poland	Sweden	UK
	Three City	ActiFE	ESTHER	PolSenior	PIVUS	MRC
	ages 65 +					
N study pop	1 141	361	1 480	1 461	290	2 991
Mean age, years (SD)	73.7 (5.0)	75.2 (6.3)	68.7 (6.2)	73.4 (9.7)	70.2 (0.2)	81.3 (4.8)
Females (%)	n/a	n/a	n/a	57.8	52.1	67.5
DM (%)	18.6	20.8	38.7	32.7	17.6	11.0
HT (%)	88.9	70.1	91.2	80.3	79.3	65.6
Smokers (%)	4.1	9.1	6.3	9.0	10.0	9.8
mean Systolic Blood pressure, mmHg (SD)	151 (22)	145 (11)	141 (18)	146 (21)	154 (23)	149 (22)
mean Diastolic Blood pressure, mmHg (SD)	85 (11)	81 (11)	82 (10)	86 (11)	80 (10)	76 (13)
Mean BMI (kg/m²) (SD)	32.9 (2.9)	33.2 (3.2)	33.9 (3.9)	33.9 (3.5)	33.2 (3.1)	32.8 (2.6)
ARB use (%)	14.1	14.5	27.8	9.7	10.0	n/a
ACEi use (%)	20.0	20.2	38.0	47.5	12.1	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	11.4
Mean eGFR by CKD-EPI (SD)	75.4 (14.0)	62.9 (14.6)	69.5 (15.4)	72.8 (18.1)	74.0 (15.1)	52.1 (14.0)
Mean eGFR by MDRD (SD)	80.6 (17.5)	66.4 (15.0)	71.5 (16.2)	78.5 (22.7)	78.8 (19.8)	56.5 (15.0)
Median ACR mg/g (25p-75p)	n/a	6.3 (4.0-13.2)	n/a	4.3 (1.7-13.1)	n/a	n/a

DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 6: Non diabetic population: ages 20 years and older (part a)

Country	Finland	Germany	Italy		Netherlands		Norway	Portugal	Spain
Study / Characteristics	FINRISK	SHIP	MATISS	VIP	PREVEND	LifeLines	HUNT	PREVADIAB	EPIRCE
Age range	**ages 20+**								
N study pop	3 852	3 822	3 584	1 102	8 381	92 032	62 655	4 578	2 459
Mean age, years (SD)	49.1 (12.5)	48.0 (16.1)	48.7 (14.1)	48.7 (14.1)	48.2(12.2)	44.0 (12.4)	50.0 (17.0)	45.1 (18.0)	47.8 (16.0)
Females (%)	54.2	51.9	48.8	50.2	54.7	58.8	53.3	59.8	59.1
HT (%)	42.2	48.5	14.5	33.3	26.7	17.8	42.5	51.2	37.4
Smokers (%)	n/a	32.0	28.1	24.7	n/a	18.9	29.6	n/a	26.5
mean Systolic Blood pressure, mmHg (SD)	131 (19)	134 (21)	139 (23)	128 (19)	126 (18)	125 (15)	137 (21)	134 (25)	130 (21)
mean Diastolic Blood pressure, mmHg (SD)	79 (11)	83 (11)	84 (13)	77 (10)	73 (9)	74 (9)	80 (12)	85 (34)	79 (11)
Mean BMI (kg/m²) (SD)	26.7 (4.7)	26.9 (4.6)	27.5 (4.4)	28.1 (6.0)	25.8 (4.0)	26.0 (4.3)	26.3 (4.0)	27.4 (4.9)	27.1 (5.1)
ARB use (%)	n/a	1.3	n/a	1.9	n/a	n/a	n/a	n/a	3.9
ACEi use (%)	n/a	9.8	n/a	3.4	n/a	n/a	n/a	n/a	5.0
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	89.8 (14.7)	83.4 (16.0)	100.8 (14.6)	84.3 (16.3)	83.7 (14.8)	96.7 (14.9)	98.3 (19.1)	85.7 (17.7)	87.5 (17.7)
Mean eGFR by MDRD (SD)	87.0 (15.1)	80.1 (14.7)	103.4 (19.2)	81.0 (14.6)	80.1 (13.7)	93.4 (17.0)	100.7 (24.0)	81.9 (15.9)	84.6 (17.5)
Median ACR mg/g (25p-75p)	n/a	7.8 (4.9-15.1)	n/a	n/a	5.4 (4.1-8.2)	2.2 (1.3-4.1)	10.9 (8.1-14.8)	n/a	4.5 (2.4-8.0)

HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 6: Non diabetic population: ages 45 years and older (part c)

Country	France	Ireland	Italy	Switzerland
Study / Characteristics	MONALISA	SLAN	INCIPE	Bus Santé
Age range	**ages 45+**			
N study pop	4 517	1 071	3 583	4 548
Mean age, years (SD)	55.0 (11.2)	59.4 (9.8)	59.2 (11.4)	58.1 (10.9)
Females (%)	50.4	57.6	53.0	49.8
HT (%)	21.6	55.1	33.4	21.4
Smokers (%)	15.3	18.2	15.5	13.8
mean Systolic Blood pressure, mmHg (SD)	134 (20)	140 (20)	137 (20)	126 (23)
mean Diastolic Blood pressure, mmHg (SD)	81 (11)	82 (13)	85 (10)	75 (11)
Mean BMI (kg/m^2) (SD)	26.4 (4.7)	27.8 (4.5)	26.5 (5.1)	25.5 (4.1)
ARB use (%)	9.3	n/a	n/a	n/a
ACEi use (%)	5.2	n/a	n/a	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	76.5 (12.9)	81.1 (16.5)	86.3 (16.2)	89.8 (13.3)
Mean eGFR by MDRD (SD)	74.5 (11.8)	81.5 (18.2)	88.3 (20.4)	90.7 (15.8)
Median ACR mg/g (25p-75p)	n/a	9.2 (4.3-17.7)	only for dipstick +	n/a

HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 6: Non diabetic population: ages 65 years and older (part c)

Country	**France**	**Germany**		**Poland**	**Sweden**	**UK**
Study / Characteristics	Three City	ActiFE	ESTHER	PolSenior	PIVUS	MRC
Age range	**ages 65+**					
N study pop	7 817	1 302	3 399	3 694	897	12 137
Mean age, years (SD)	74.3 (5.6)	75.5 (6.6)	69.2 (6.3)	75.9 (11.2)	70.2 (0.2)	81.2 (4.7)
Females (%)	65.6	44.9	56.6	48.3	51.2	61.9
HT (%)	75.9	49.9	75.8	68.7	70.6	63.4
Smokers (%)	5.6	8.6	7.7	12.8	10.5	11.7
mean Systolic Blood pressure, mmHg (SD)	146 (22)	142 (12)	139 (19)	143 (22)	149 (22)	148 (22)
mean Diastolic Blood pressure, mmHg (SD)	82 (11)	80 (11)	82 (9)	83 (11)	79 (10)	74 (13)
Mean BMI (kg/m²) (SD)	25.5 (4.0)	27.3 (4.0)	27.8 (4.3)	27.6 (4.8)	26.4 (4.2)	26.0 (4.1)
ARB use (%)	8.6	13.9	17.0	5.8	6.5	n/a
ACEi use (%)	12.7	18.2	26.2	35.6	6.8	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	8.4
Mean eGFR by CKD-EPI (SD)	75.2 (13.1)	65.9 (14.5)	71.0 (13.5)	72.4 (18.0)	75.7 (14.8)	53.9 (14.2)
Mean eGFR by MDRD (SD)	80.3 (16.2)	69.7 (15.2)	73.0 (14.3)	79.1 (22.6)	81.3 (20.8)	59.1 (40.1)
Median ACR mg/g (25p-75p)	4.9 (2.5-10.3)*	5.8 (3.8-11.1)	n/a	4.4 (1.8-13.0)	n/a	n/a

HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 7: Non hypertensive population: ages 20 years and older (part a)

Country	Finland	Germany	Italy		Netherlands		Norway	Portugal	Spain
Study / Characteristics	FINRISK	SHIP	MATISS	VIP	PREVEND	LifeLines	HUNT	PREVADIAB	EPIRCE
Age range	**ages 20+**								
N study pop	2 341	2 041	3 188	777	6 201	77 302	36 398	2 328	1 611
Mean age, years (SD)	45.1 (11.8)	42.0 (15.0)	46.9 (13.6)	46.4 (13.9)	45.2 (10.9)	43.1 (12.0)	42.7 (14.4)	37.3 (14.4)	42.2 (13.7)
Females (%)	60.1	62,0	45.5	51.0	57.1	62.3	56.8	61.7	63.6
DM (%)	5.7	3.7	3.8	5.4	1.0	1.9	1.2	2.6	4.5
Smokers (%)	n/a	38.3	30.4	27.4	n/a	19.2	33.0	n/a	31.8
mean Systolic Blood pressure, mmHg (SD)	121 (11)	120 (11)	135 (20)	120 (12)	118 (11)	120 (10)	123 (10)	117 (12)	118 (12)
mean Diastolic Blood pressure, mmHg (SD)	74 (9)	76 (7)	83 (12)	74 (8)	70 (7)	71 (7)	74 (8)	75 (9)	73 (8)
Mean BMI (kg/m²) (SD)	25.7 (4.2)	25.4 (4.2)	27.1 (4.3)	27.6 (4.8)	25.0 (3.7)	25.7 (4.2)	25.4 (3.7)	26.1 (4.6)	26.0 (4.8)
ARB use (%)	n/a	0.1	n/a	0.0	n/a	n/a	n/a	n/a	0.0
ACEi use (%)	n/a	2.2	n/a	0.1	n/a	n/a	n/a	n/a	0.1
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	92.4 (14.1)	87.2 (15.7)	102.4 (13.8)	85.6 (15.9)	86.1 (13.9)	97.6 (14.7)	104.7 (16.5)	91.1 (15.6)	91.7 (15.9)
Mean eGFR by MDRD (SD)	88.4 (14.7)	82.3 (13.9)	104.9 (18.9)	81.5 (13.9)	81.7 (13.0)	94.0 (17.0)	106.0 (23.2)	85.6 (14.7)	87.3 (16.4)
Median ACR mg/g (25p-75p)	n/a	6.7 (4.5-11.7)	n/a	n/a	5.2 (4.0-7.4)	2.1 (1.2-3.9)	9.8 (7.7-12.7)	n/a	4.1 (2.3-6.9)

DM = diabetes mellitus, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 7: Non hypertensive population: ages 45 years and older (part b)

Country	France	Ireland	Italy	Switzerland
Study / Characteristics	MONALISA	SLAN	INCIPE	Bus Santé
Age range	**ages 45+**			
N study pop	3 650	497	2 481	3 654
Mean age, years (SD)	52.9 (10.8)	56.0 (8.8)	57.0 (11.0)	56.5 (10.5)
Females (%)	50.1	68.4	53.4	51
DM (%)	3.0	3.4	3.7	2.2
Smokers (%)	17.4	21.9	17.1	14.8
mean Systolic Blood pressure, mmHg (SD)	130 (18)	124 (10)	132 (18)	122 (22)
mean Diastolic Blood pressure, mmHg (SD)	80 (10)	76 (7)	83 (10)	74 (11)
Mean BMI (kg/m²) (SD)	25.8 (4.4)	26.7 (4.4)	25.8 (4.0)	25.0 (3.9)
ARB use (%)	0.3	n/a	n/a	n/a
ACEi use (%)	0.9	n/a	n/a	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	78.2 (12.1)	84.8 (14.4)	89.1 (15.0)	91.5 (12.3)
Mean eGFR by MDRD (SD)	75.7 (11.2)	84.1 (16.5)	90.7 (19.9)	92.0 (15.3)
Median ACR mg/g (25p-75p)	n/a	7.3 (0.0-12.5)	only for dipstick +	n/a

DM = diabetes mellitus, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 7: Non hypertensive population: ages 65 years and older (part c)

Country	France	Germany		Poland	Sweden	UK
Study / Characteristics	Three City	ActiFE	ESTHER	PolSenior	PIVUS	MRC
Age range	**ages 65+**					
N study pop	1 974	700	923	1 373	284	4 760
Mean age, years (SD)	72.6 (5.1)	75.0 (6.7)	67.1 (6.0)	75.9 (12.3)	70.2 (0.2)	81.1 (4.7)
Females (%)	65.2	44.6	59.9	42.9	45.4	55.8
DM (%)	4.2	6.9	10.8	15.0	7.0	7.6
Smokers (%)	6.6	11.2	10.4	14.8	11.7	12.0
mean Systolic Blood pressure, mmHg (SD)	125 (11)	139 (13)	124 (10)	126 (12)	125 (10)	126 (11)
mean Diastolic Blood pressure, mmHg (SD)	74 (7)	79 (11)	77 (6)	77 (8)	71 (8)	67 (10)
Mean BMI (kg/m²) (SD)	24.3 (3.6)	26.5 (3.8)	26.1 (3.7)	26.5 (4.7)	25.2 (3.9)	25.7 (4.1)
ARB use (%)	0.0	10.0	0.0	1.5	1.1	n/a
ACEi use (%)	1.3	7.6	0.0	14.1	1.8	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	8.9
Mean eGFR by CKD-EPI (SD)	78.0 (11.4)	67.1 (13.7)	74.8 (11.7)	74.5 (18.5)	76.9 (14.4)	53.9 (14.4)
Mean eGFR by MDRD (SD)	82.7 (15.2)	70.9 (14.5)	76.3 (13.1)	82.4 (24.2)	83.3 (21.6)	58.5 (16.2)
Median ACR mg/g (25p-75p)	4.7 (2.5-8.7)*	5.5 (3.8-10.3)	n/a	4.3 (1.7-13.4)	n/a	n/a

DM = diabetes mellitus, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 8: Non obese population: ages 20 years and older (part a)

Country	Finland	Germany	Italy		Netherlands		Norway	Portugal	Spain
Characteristics \ Study	FINRISK	SHIP	MATISS	VIP	LifeLines	PREVEND	HUNT	PREVADIAB	EPIRCE
Age range	**ages 20+**								
N study pop	3 298	3 199	2 777	817	79 641	7 268	53 816	3 504	2 012
Mean age, years (SD)	48.6 (12.6)	48.1 (16.7)	47.1 (14.3)	47.7 (14.4)	44.2 (12.6)	47.8 (12.2)	49.1 (17.1)	44.6 (18.3)	47.4 (16.4)
Females (%)	54.0	50.6	43.5	47.7	58.0	53.3	51.8	58.8	58.6
DM (%)	n/a	8.2	3.7	5.3	1.6	n/a	2.5	5.1	7.1
HT (%)	n/a	45.4	10.8	30.4	16.1	n/a	39.3	46.8	33.6
Smokers (%)	n/a	33.2	31.7	26.3	19.2	n/a	30.7	n/a	27.7
mean Systolic Blood pressure, mmHg (SD)	130 (18)	133 (21)	136	127 (19)	124 (15)	125 (18)	136 (21)	143 (25)	143 (21)
mean Diastolic Blood pressure, mmHg (SD)	78 (11)	82 (11)	82	78 (10)	73 (9)	72 (9)	79 (12)	83 (34)	77 (11)
Mean BMI (kg/m²) (SD)	25.0 (2.8)	25.1 (2.9)	25.6	25.7 (3.0)	24.7 (2.7)	24.7 (2.7)	25.0(2.7)	25.1 (2.9)	25.1 (2.9)
ARB use (%)	n/a	1.3	n/a	2.1	n/a	n/a	n/a	n/a	3.1
ACEi use (%)	n/a	9.2	n/a	2.7	n/a	n/a	n/a	n/a	4.3
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	89.9 (14.7)	83.7 (16.6)	101.8	85.0 (16.1)	96.8 (14.8)	84.2 (14.8)	99.0 (18.8)	86.2 (17.9)	88.0 (17.8)
Mean eGFR by MDRD (SD)	87.0 (15.1)	80.5 (14.8)	104.1	81.4 (14.3)	93.4 (16.3)	80.5 (13.7)	101.4 (23.5)	82.5 (16.1)	85.1 (17.6)
Median ACR mg/g (25p-75p)	n/a	7.9 (5.0-15.6)	n/a	n/a	2.1 (1.3-4.0)	5.4 (4.1-8.2)	10.8 (8.1-14.7)	n/a	4.4 (2.4-7.7)

DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio.

Table 8: Non obese population: ages 45 years and older (part b)

Country	France	Ireland	Italy	Switzerland
Study / Characteristics	MONALISA	SLAN	INCIPE	Bus Santé
Age range	**ages 45+**			
N study pop	3 775	821	3 104	4 109
Mean age, years (SD)	54.6 (11.3)	59.7 (10.2)	59.4 (11.6)	58.1 (11.0)
Females (%)	49.7	57.5	n/a	49.4
DM (%)	3.3	5.9	5.7	3.2
HT (%)	17.8	51.2	31.3	19.8
Smokers (%)	16.3	21	15.1	14.0
mean Systolic Blood pressure, mmHg (SD)	132 (20)	138 (20)	136 (19)	n/a
mean Diastolic Blood pressure, mmHg (SD)	80 (11)	81 (14)	84 (10)	n/a
Mean BMI (kg/m^2) (SD)	24.7 (2.9)	25.7 (3.0)	25 (3.0)	25.1 (2.9)
ARB use (%)	7.6	n/a	n/a	n/a
ACEi use (%)	4.7	n/a	n/a	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a
Mean eGFR by CKD-EPI (SD)	76.7 (12.7)	81.3 (17.0)	86.3 (16.0)	89.9(13.3)
Mean eGFR by MDRD (SD)	74.7 (11.6)	81.7 (18.4)	88.3 (20.3)	90.8 (15.9)
Median ACR mg/g (25p-75p)	n/a	9.2 (0.0-18.0)	only in dipstick +	n/a

DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Table 8: Non obese population: ages 65 years and older (part c)

Country	France	Germany		Poland	Sweden	UK
Study / Characteristics	Three City	ActiFE	ESTHER	PolSenior	PIVUS	MRC
Age range	**ages 65 +**					
N study pop	7 491	1 130	3 058	3 089	726	10 188
Mean age, years (SD)	74.3 (5.5)	75.8 (6.7)	69.9 (6.3)	76.6 (11.2)	70.1 (0.2)	81.1 (4.6)
Females (%)	n/a	n/a	n/a	43.5	49.3	59.3
DM (%)	8.2	10.9	20.5	16.6	9.4	7.0
HT (%)	75.5	48.1	74.7	67.2	69.2	63.0
Smokers (%)	5.8	9.3	9.0	14.2	10.8	12.0
mean Systolic Blood pressure, mmHg (SD)	146 (22)	142 (12)	138 (19)	143 (22)	143 (23)	148 (22)
mean Diastolic Blood pressure, mmHg (SD)	82 (11)	80 (11)	81 (9)	82 (11)	78 (10)	74 (13)
Mean BMI (kg/m²) (SD)	24.6 (2.9)	25.8 (2.5)	25.9 (2.6)	25.4 (3.0)	25.1 (3.0)	25.1 (3.0)
ARB use (%)	8.1	14.9	16.4	5.8	7.6	n/a
ACEi use (%)	13.2	18.4	27.1	34.9	7.0	n/a
ACEi/ARB use (%)	n/a	n/a	n/a	n/a	n/a	8.7
Mean eGFR by CKD-EPI (SD)	75.4 (13.0)	66.2 (14.8)	70.7 (13.5)	71.6 (18.4)	76.1(14.7)	54.3(14.3)
Mean eGFR by MDRD (SD)	80.6 (16.4)	70.3 (15.6)	72.9 (14.4)	78.3 (22.4)	81.9 (20.9)	59.8 (43.3)
Median ACR mg/g (25p-75p)	n/a	5.9 (3.9-11.3)	n/a	4.7 (1.8-14.4)	n/a	n/a

DM = diabetes mellitus, HT= hypertension, BMI= body mass index, ARB = angiotensin receptor blockers, ACEi angiotensin converting enzyme inhibitors, ARB/ACEi = use of either ARB or ACEi, eGFR= estimated glomerular filtration rate, ACR= urinary albumin-to-creatinine ratio**.**

Appendix 2: Methods on study selection

Search strategy

To identify European studies with data on CKD prevalence in the general population, we performed a literature search in the PUBMED database. The following words were used for this search: "Renal Insufficiency, Chronic"[Mesh] OR kidney (or renal) insufficienc*[tiab] OR kidney (or renal) dysfunction*[tiab] OR kidney (or renal) impairment[tiab] OR impaired kidney (or renal) function[tiab] OR decreased kidney (or renal) function[tiab] OR chronic (or renal) kidney[tiab] OR CKD[tiab] AND Prevalence"[Mesh] OR "Incidence"[Mesh] OR "Follow-Up Studies"[Mesh] OR prevalen*[tiab] OR inciden*[tiab] OR progression[tiab] AND population* OR community* OR survey* OR screening* AND Glomerular filtration rate[tiab] OR *GFR[tiab] OR creatinin*[tiab] OR "Creatinine"[Mesh] OR proteinuria [Mesh] OR proteinuria[tiab] OR albuminuria[tiab] OR dipstick OR MDRD OR (Modification [tiab] AND diet [tiab] AND 'renal disease'[tiab]) OR ('Cockroft Gault' AND (equation OR formula)).

In and exclusion criteria

Studies were included if designed to select a representative sample of the adult general population in a European country or region, if CKD prevalence could be calculated by serum creatinine-based equations, and if the sample size was more than 100 participants. Review articles were excluded. No language restrictions were applied. We identified all potentially relevant publications after January 2000 and before March 2013. Studies that ended recruitment prior to 1996 were excluded.

Procedure

The systematic literature search was done by KB and VS. Any study that was judged relevant on the basis of its title was retrieved in abstract form, and if relevant, in full-text form. We extended our search by reviewing references from retrieved articles and review articles. Additionally, the representatives of national kidney foundations, renal registries and expert nephrologists in 39 European countries were asked to provide contact details for any relevant *un*published studies. Vacillation about eligibility was resolved by discussion between KB, VS and KJ. In case of unremitting doubt, we discussed possibilities for collaboration with the study representative. Eligible studies were invited to participate in an online questionnaire, assessing general study information (e.g. period of participant inclusion), and collected data. Finally, studies that agreed to contribute data were sent a syntax to collect data.

Table 1: Collected data by participating studies, part a

Country	Finland	France		Germany			Ireland	Italy		
Study / Collected data	FINRISK	MONA LISA	Three City	ActiFE	ESTHER	SHIP	SLAN07	INCIPE	MATISS	VIP
Age	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Gender	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
BMI / weight and height	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Ethnicity	yes	*	*	yes	no	yes	yes	yes		yes
Hypertensive status	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Diabetic status	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
- Specified for DM type 1	yes	yes				yes			yes	
- Specified for DM type 2	yes	yes				yes			yes	yes
Other co-morbidity	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Smoking status	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Statin use	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
NSAID use		yes	yes	yes	yes	yes		yes	yes	
ACEi use		yes	yes	yes	yes	yes			yes	yes
ARB use		yes	yes	yes	yes	yes			yes	yes
Allopurinol		yes	yes	yes	yes	yes			yes	yes
Systolic blood pressure	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Diastolic blood pressure	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Cystatin C			yes	yes	yes	yes		yes		
Serum calcium			yes	yes		yes		yes		
Serum phosphate			yes	yes				yes		
Serum bicarbonate										
Serum albumin				yes	yes	yes	yes	yes		
Hemoglobin		yes	yes	yes	yes	yes	yes		yes	yes
Lipids	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
CRP		yes	yes	yes	yes	yes		yes		yes

*National legislation prohibiting collection of ethnicity data.

Table 1: Collected data by participating studies, part b

Country	Netherlands		Norway	Poland	Portugal	Spain	Sweden	Switzerland	UK
Study / Collected data	LifeLines	PREVEND	HUNT	PolSenior	PREVADIAB	EPIRCE	PIVUS	Bus Santé	MRC
Age	yes	yes	yes	yes	yes	yes	yes	yes	yes
Gender	yes	yes	yes	yes	yes	yes	yes	yes	yes
BMI / weight and height	yes	yes	yes	yes	yes	yes	yes	yes	yes
Ethnicity	yes	yes	yes	yes	no	yes	yes		
Hypertensive status	yes	yes	yes	yes	yes	yes	yes	yes	yes
Diabetic status	yes	yes	yes	yes	yes	yes	yes	yes	yes
- Specified for DM type 1	yes				yes	yes			
- Specified for DM type 2	yes	yes			yes	yes			
Other co-morbidity	yes	yes	yes	yes	yes	yes	yes	yes	yes
Smoking status	yes	yes	yes	yes	yes	yes	yes	yes	yes
Statin use	yes			yes	yes		yes	yes	yes
NSAID use	yes	yes		yes		yes	yes		yes
ACEi use	yes	yes		yes	yes		yes		yes
ARB use	yes	yes		yes	yes		yes		yes
Allopurinol	yes	yes		yes			yes		
Systolic blood pressure	yes	yes	yes	yes	yes	yes	yes	yes	yes
Diastolic blood pressure	yes	yes	yes	yes	yes	yes	yes	yes	yes
Cystatin C	yes	yes		yes			yes		
Serum calcium	yes	yes		yes		yes	yes	yes	yes
Serum phosphate	yes	yes		yes			yes		yes
Serum bicarbonate									
Serum albumin	yes	yes		yes		yes	yes		yes
Hemoglobin	yes		yes[1]	yes		yes	yes		yes
Lipids	yes	yes	yes	yes	yes	yes	yes	yes	
CRP		yes		yes			yes		

[1]In sub study including all females.

Table 2: Answers to questions on regional/national health care system characteristics, part 1.

Answers \ Country	Finland	France	Germany	Ireland	Italy	Netherlands
Access to nephrologist	gatekeeper system	gatekeeper system	both	gatekeeper system	gatekeeper system	gatekeeper system
Health insurance coverage	100%	100%	100%	51%	100%	95-99%
Are there guidelines for the referral of CKD patients from primary care to specialist care?						
N/A						
No guideline on referral criteria	x					
No guideline, Yes referral criteria						
Yes there is a guideline on referral criteria		x		x	x since 2012	x
other			x			
QI activities for the care of CKD stage 1-5 (NOT on RRT)						
Public campaign/program on prevention, detection and/or treatment of CKD by:						
-Governmental organisation/ Ministry of Health						
-Society of Nephrology, Kidney Foundation or other renal organisation	x	x			x	x
Quality requirements for CKD care (e.g. measurable outcome testing)						x
Guideline committee	x			x		x
Laboratory-based reporting of eGFR calculated from serum creatinine	x	x	x	x		x
Population screening program encouraging at risk individuals to test kidney function			x			
Payment for performance						
Reward for complying with QI or CKD guideline?	none	none		none	none	none
Negative consequence for NOT complying?	none	none	none	none	none	disqualified if non-compliant

Table 2: Answers to questions on regional/national health care system characteristics, part 2.

Answers \ Country	Norway	Poland	Portugal	Spain	Sweden	Switzerland	UK
Access to nephrologist	gatekeeper system	gatekeeper system	gatekeeper system	open access	gatekeeper system	open access	gatekeeper system
Health insurance coverage	100%	100%	100%	100%	100%	100%	100%[1]
Are there guidelines for the referral of CKD patients from primary care to specialist care?							
N/A							
No guideline on referral criteria			x		x		
No guideline, Yes referral criteria							
Yes there is a guideline on referral criteria	x	x		x			x
other						x	
QI activities for the care of CKD stage 1-5 (NOT on RRT)							
Public campaign/program on prevention, detection and/or treatment of CKD by:							
-Governmental organisation/ Ministry of Health							x
-Society of Nephrology, Kidney Foundation or other renal organisation	x	x	x	x			x
Quality requirements for CKD care (e.g. measurable outcome testing)							x
Guideline committee				x			
Laboratory-based reporting of eGFR calculated from serum creatinine	x	x			x	x	x
Population screening program encouraging at risk individuals to test kidney function	x						x
Payment for performance							x
Reward for complying with QI or CKD guideline?	none	none	n/a	none	none	none	Monetary Reputation
Negative consequence for NOT complying?	none	none	n/a	none	none	none	Monetary Reputation

[1] All, except migrants who've been in the country<1yr