

# Supplementary Material

## Causes of Death in People with Dementia from 2002 to 2015: A Nationwide Study

**Supplementary Table 1.** The annual median age at death in women and men with and without diagnosed dementia

	Women, no dementia		Women, dementia		Men, no dementia		Men, dementia	
	Median age	IQR	Median age	IQR	Median age	IQR	Median age	IQR
<b>2002</b>	83.2	(76.4–89.4)	86.6	(81.7–90.6)	79.3	(73.3–85.2)	83.6	(78.9–87.9)
<b>2003</b>	83.2	(76.4–89.5)	86.9	(82.2–90.7)	79.4	(73.4–85.4)	83.5	(79.1–88.0)
<b>2004</b>	83.2	(76.3–89.5)	87.0	(82.4–91.1)	79.6	(73.4–85.3)	83.7	(79.1–88.2)
<b>2005</b>	83.5	(76.4–89.7)	87.0	(82.4–91.2)	79.6	(73.4–85.4)	84.1	(79.4–88.4)
<b>2006</b>	83.5	(76.4–89.7)	86.8	(82.3–91.1)	79.4	(73.2–85.5)	83.9	(79.1–88.2)
<b>2007</b>	83.6	(76.5–89.6)	87.0	(82.7–91.2)	79.5	(73.1–85.6)	84.4	(79.9–88.4)
<b>2008</b>	83.7	(76.3–89.9)	87.3	(82.7–91.4)	79.5	(72.8–85.7)	84.6	(79.8–88.7)
<b>2009</b>	83.7	(76.4–89.8)	87.4	(83.0–91.4)	79.7	(73.0–85.8)	84.5	(79.5–88.5)
<b>2010</b>	83.6	(76.2–89.8)	87.6	(83.0–91.7)	79.4	(72.7–85.7)	84.5	(79.9–88.7)
<b>2011</b>	83.7	(76.0–90.2)	87.7	(83.2–91.7)	79.2	(72.6–85.8)	84.7	(79.7–88.8)
<b>2012</b>	83.5	(75.9–90.1)	87.9	(83.0–91.8)	79.3	(72.5–85.9)	84.5	(79.8–88.7)
<b>2013</b>	83.9	(76.2–90.4)	88.1	(83.3–92.0)	79.5	(72.4–86.0)	84.8	(80.0–88.9)
<b>2014</b>	83.7	(75.8–90.5)	88.1	(83.4–92.0)	79.5	(72.4–86.3)	84.9	(79.8–89.2)
<b>2015</b>	83.9	(76.0–90.8)	88.0	(83.1–92.3)	79.6	(72.7–86.4)	84.8	(80.1–89.2)

IQR, interquartile range

Supplementary Figure 1. A copy of the second page of the Danish death certificates.

Side 2

## Dødsattest

I henhold til afsnit XIII i sundhedsloven, j. LBK nr. 913 af 13. juli 2010

Personnummer (CPR nummer): (Ved dødfødt angives moderens CPR-nummer)  Mand:  Kvinde:

Fulde navn:

Dødsårsag  Naturlig død  Ulykke  Selvmord  Dreb/Vold  Uoplyst

**Dødsårsag I. Det sygdoms-, misbrugs- og/eller skadesforløb der førte til døden** ICD10  Tidsrum mellem sygdommens opståen og døden

A Den umiddelbare dødsårsag:  **A The immediate cause of death:**

B Som var en følge af:  **B That was caused by:**

C Som var en følge af:  **C That was caused by:**

D Den tilgrundliggende dødsårsag:  **D The Underlying cause of death:**

**Dødsårsag II. Andre stadig aktive sygdomme, misbrug eller skader, der kan have medvirket til døden** ICD10  Tidsrum mellem sygdommens opståen og døden

**Causes of Death II. Other diseases, addictions, or injuries that may have contributed to death**

Medicin, i forbindelse med forgiftning, medicinbivirkning og misbrug

Medicinsk præparat (handelsnavn):  ATC:

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Hændelsessted ved ikke-naturlig død:

Transport-område  Bolig-område  Produktions-område  Handels-område  Skole og institution  Sports-område  Forlystelse og parkområde  Fri natur  Hav- og søområde  Andet

Obduktion: Ingen  Forbud  Retslig  Anden

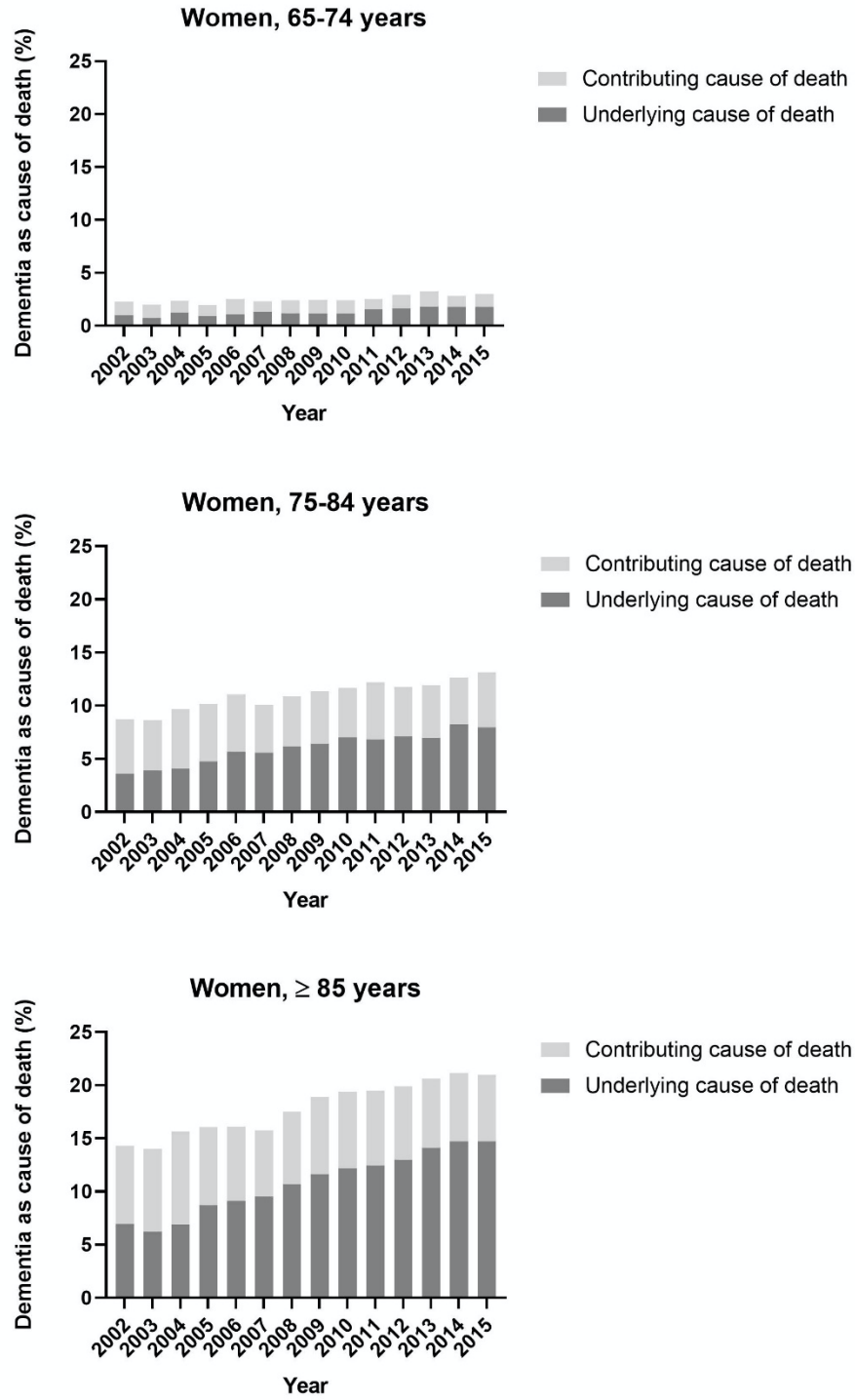
Væsentlige obduktionsfund

Hvis yderligere undersøgelser er foretaget, specificer resultaterne heraf

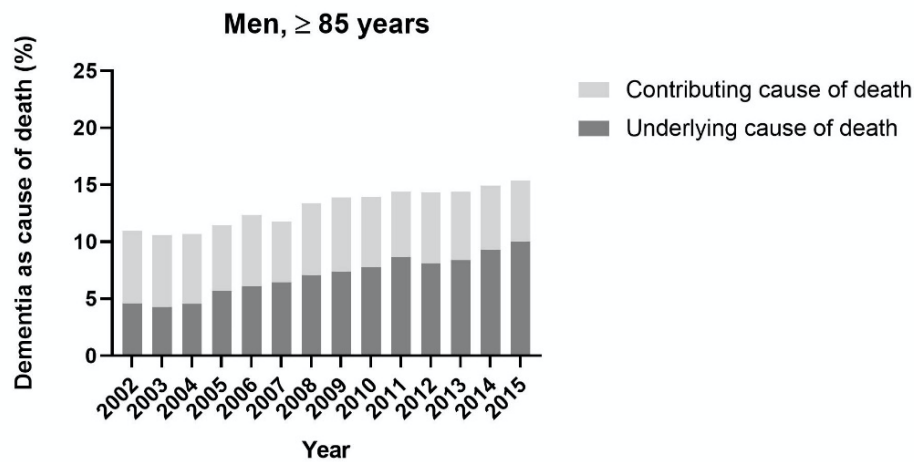
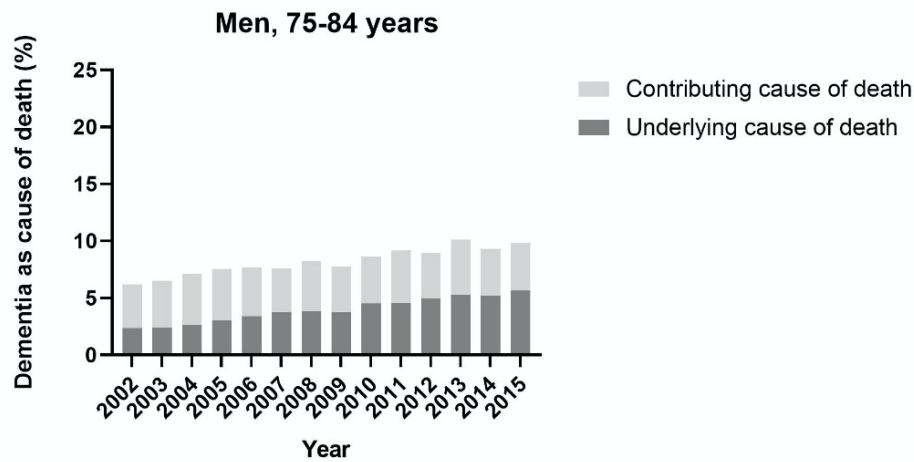
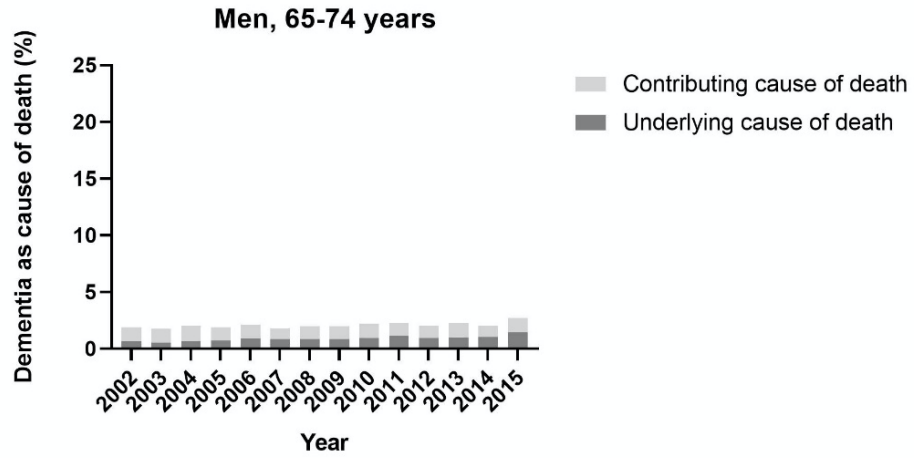
Supplerende oplysninger

Dato  Attesterende læges navn og stempel

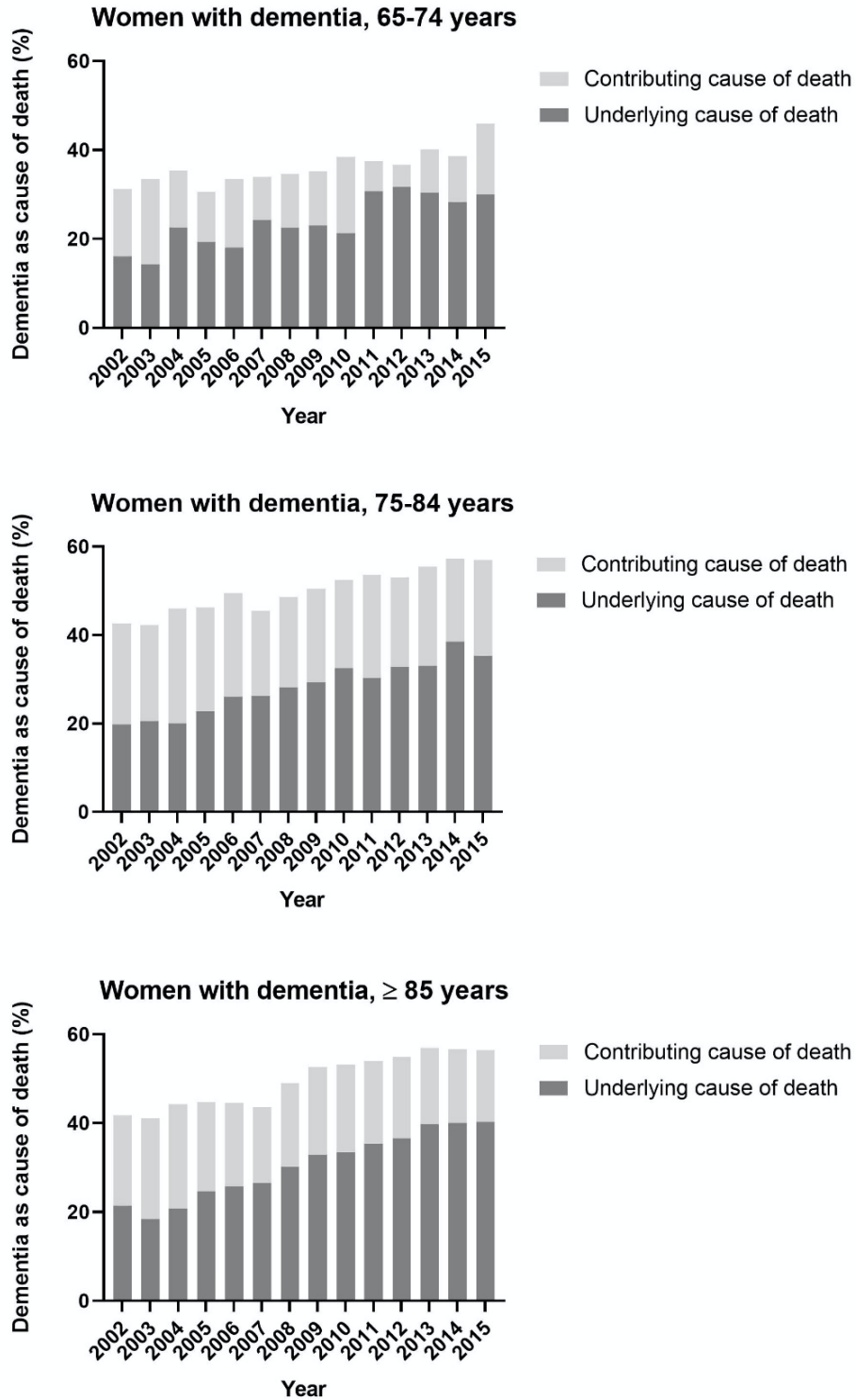
**Supplementary Figure 2.** Time trend of the distribution of dementia registered as contributing cause of all deaths in women in the general elderly population divided into three age groups.



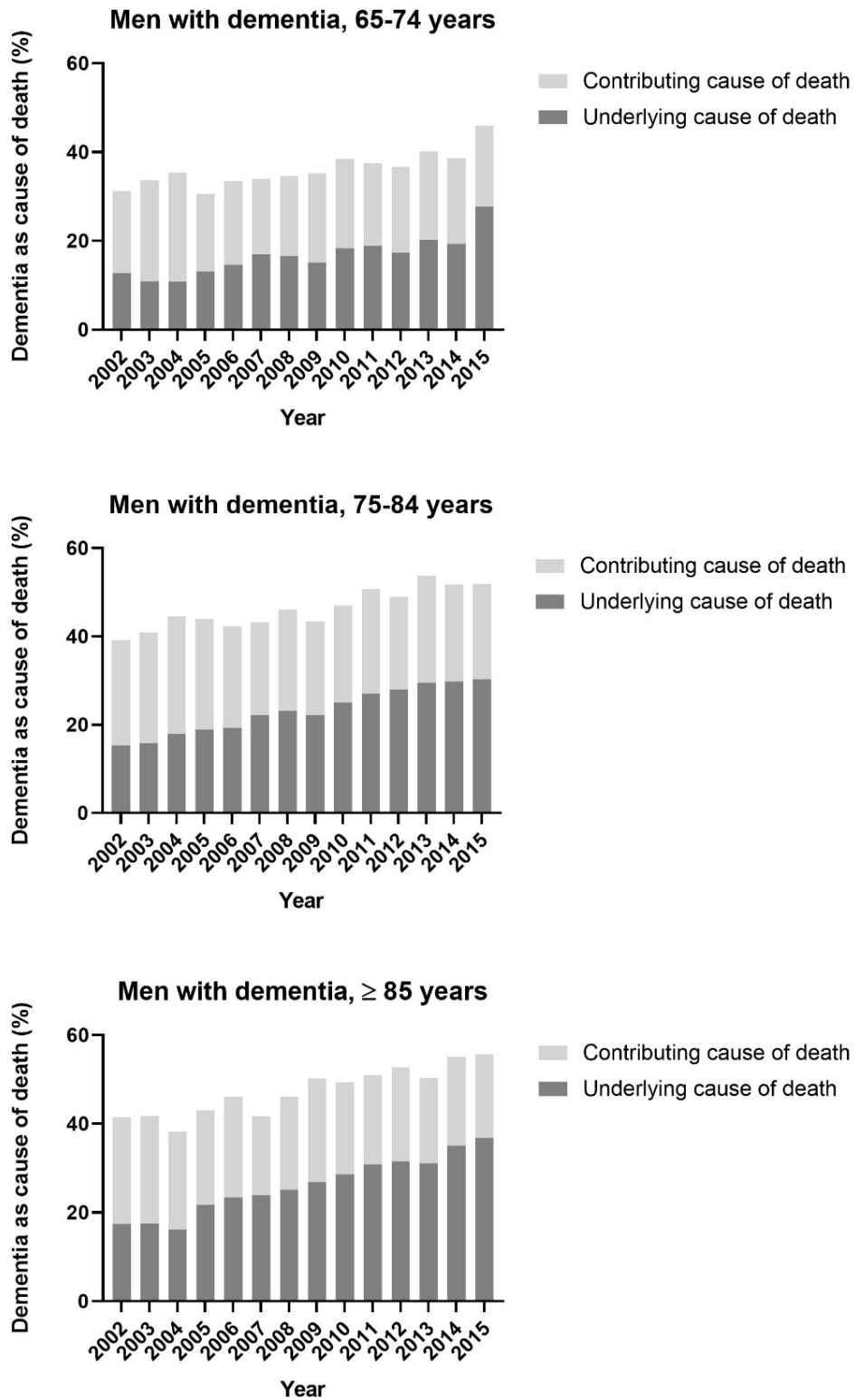
**Supplementary Figure 3.** Time trend of the distribution of dementia registered as contributing or underlying causes of all deaths in men in the general elderly population divided into three age groups.



**Supplementary Figure 4.** Time trend of the distribution of dementia registered as contributing or underlying causes of all deaths in women with diagnosed dementia divided into three age groups.



**Supplementary Figure 5.** Time trend of the distribution of dementia registered as contributing or underlying causes of all deaths in men with diagnosed dementia divided into three age groups.



**Supplementary Table 2.** Time trend of the distribution of dementia registered as contributing or underlying causes in all women and in women in diagnosed dementia in crude percentages and age standardized percentages. The age standardization was performed using all deaths in the Danish elderly population as the standard for each of the investigated years.

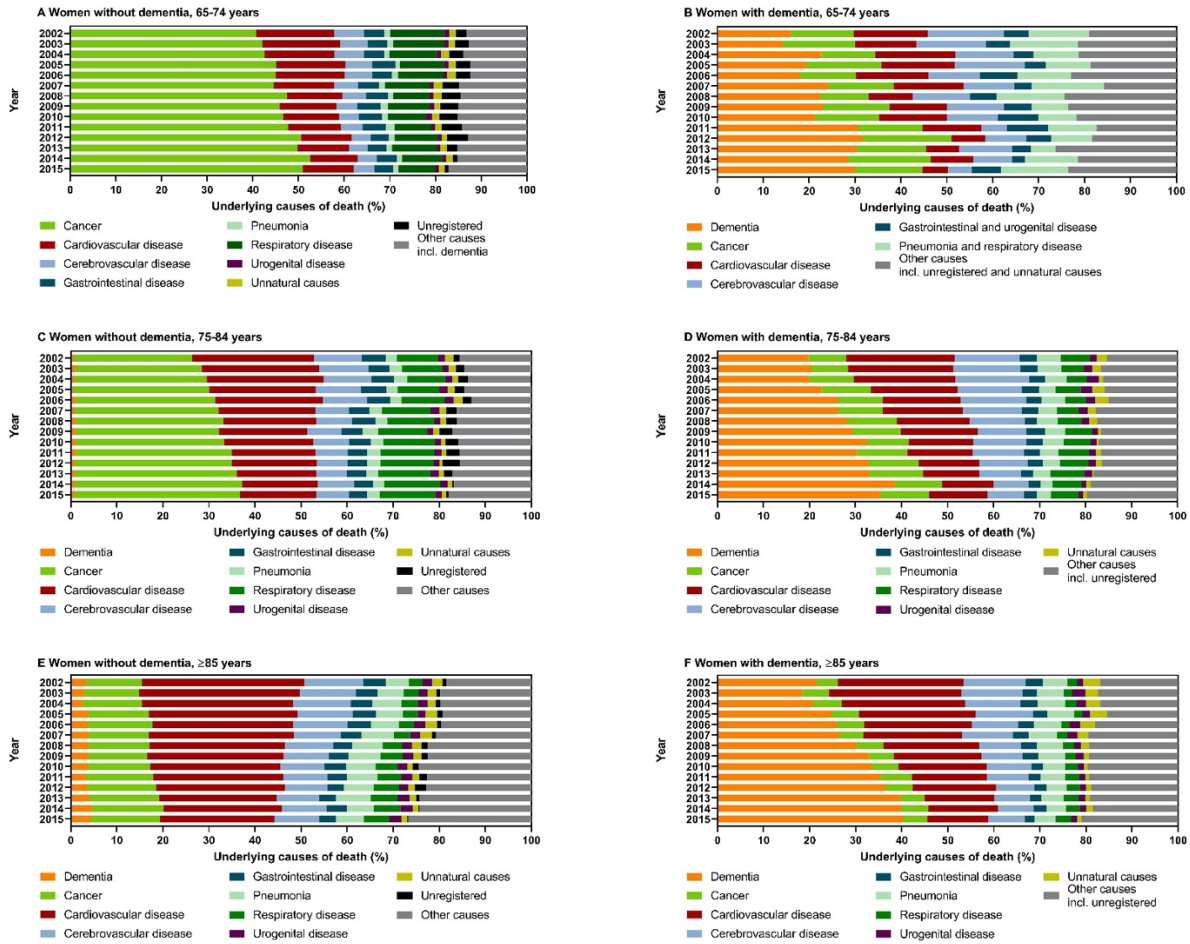
Year	<b>All women</b>				<b>Women with diagnosed dementia</b>			
	Underlying cause of death		Contributing cause of death		Underlying cause of death		Contributing cause of death	
	Crude	Age standardized	Crude	Age standardized	Crude	Age standardized	Crude	Age standardized
2002	4.62%	4.62%	5.45%	5.45%	20.59%	20.59%	21.29%	21.29%
2003	4.38%	4.36%	5.48%	5.46%	18.94%	18.96%	22.18%	22.18%
2004	4.84%	4.80%	6.20%	6.21%	20.63%	20.44%	23.96%	24.23%
2005	5.92%	5.83%	5.54%	5.48%	23.78%	23.91%	21.28%	21.22%
2006	6.48%	6.36%	5.46%	5.43%	25.54%	25.50%	20.39%	20.67%
2007	6.73%	6.55%	4.74%	4.63%	26.32%	26.11%	17.81%	17.84%
2008	7.47%	7.29%	5.14%	5.06%	29.19%	29.06%	19.33%	19.45%
2009	8.01%	7.82%	5.43%	5.35%	31.38%	31.16%	20.27%	20.54%
2010	8.47%	8.26%	5.32%	5.23%	32.65%	32.30%	19.80%	19.94%
2011	8.66%	8.43%	5.37%	5.35%	33.71%	33.22%	20.00%	20.43%
2012	8.94%	8.76%	5.09%	5.08%	35.24%	34.91%	18.96%	19.28%
2013	9.64%	9.28%	5.09%	5.08%	37.43%	36.67%	18.88%	19.60%
2014	10.22%	9.93%	4.81%	4.84%	39.06%	38.78%	17.14%	17.74%
2015	10.20%	9.89%	5.02%	5.03%	38.36%	38.04%	17.81%	18.53%

**Supplementary Table 3.** Time trend of the distribution of dementia registered as contributing or underlying causes in all men and in men in diagnosed dementia in crude percentages and age standardized percentages. The age standardization was performed using all deaths in the Danish elderly population as the standard for each of the investigated years.

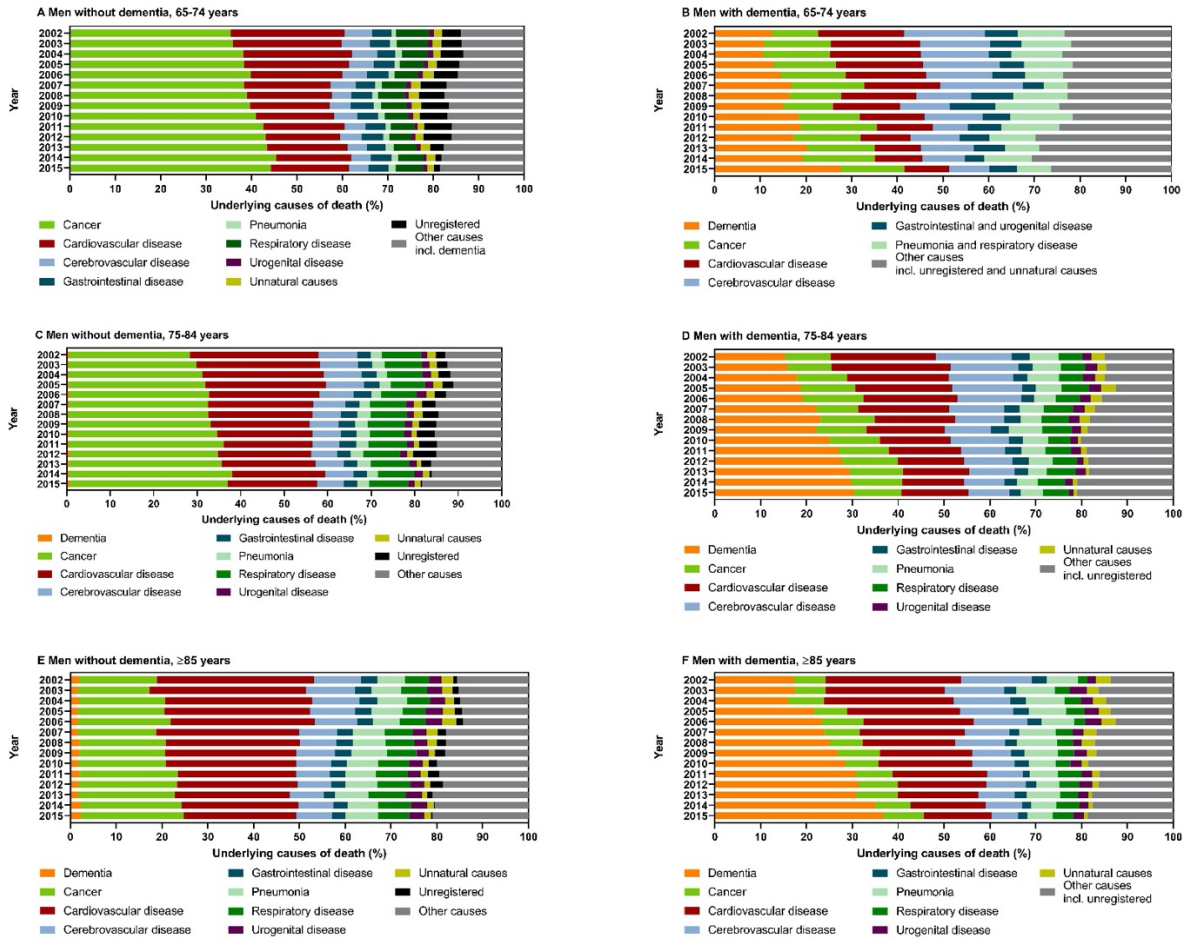
Year	<b>All Men</b>		<b>Men with diagnosed dementia</b>		<b>Men with diagnosed dementia</b>		<b>Men with diagnosed dementia</b>	
	Underlying cause of death		Contributing cause of death		Underlying cause of death		Contributing cause of death	
	Crude	Age standardized	Crude	Age standardized	Crude	Age standardized	Crude	Age standardized
2002	2.49%	2.49%	3.76%	3.76%	15.88%	15.88%	23.28%	23.28%
2003	2.38%	2.36%	3.94%	3.88%	16.03%	16.19%	24.44%	24.32%
2004	2.60%	2.56%	4.08%	4.04%	16.33%	16.19%	24.49%	24.48%
2005	3.14%	3.08%	3.92%	3.87%	19.61%	19.42%	22.73%	22.89%
2006	3.45%	3.39%	3.98%	3.98%	20.51%	20.49%	22.50%	22.72%
2007	3.73%	3.67%	3.45%	3.40%	22.51%	22.40%	19.10%	19.11%
2008	3.97%	3.87%	4.00%	3.95%	23.48%	23.38%	21.60%	21.56%
2009	4.04%	3.90%	3.94%	3.85%	23.65%	23.08%	22.17%	22.20%
2010	4.45%	4.35%	3.86%	3.84%	26.05%	25.55%	21.21%	21.38%
2011	4.79%	4.68%	3.92%	3.92%	28.04%	27.88%	21.49%	21.79%
2012	4.72%	4.68%	3.80%	3.77%	28.66%	28.11%	20.97%	21.04%
2013	4.99%	4.89%	4.13%	4.14%	29.37%	29.00%	21.53%	21.94%
2014	5.27%	5.13%	3.65%	3.65%	31.41%	30.91%	20.80%	20.87%
2015	5.83%	5.62%	3.70%	3.68%	33.26%	32.51%	19.91%	20.20%



**Supplementary Figure 6.** Time trend of the distribution (in percentages) of registered underlying causes of death in women with and without diagnosed dementia divided into three age groups from 2002 to 2015.



**Supplementary Figure 7.** Time trend of the distribution (in percentages) of registered underlying causes of death in men with and without dementia divided into three age groups from 2002 to 2015.



**Supplementary Table 4.** Number of first-ever dementia diagnoses on death certificates in women by calendar year. In parentheses are listed the percentages of women without diagnosed dementia who get their first-ever dementia diagnosis on a death certificate.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
<b>65-74 y</b>	32	24	21	13	24	22	18	13	14	23	22	20	23	18	287
	(0.70%)	(0.54%)	(0.50%)	(0.32%)	(0.59%)	(0.54%)	(0.45%)	(0.32%)	(0.34%)	(0.57%)	(0.53%)	(0.51%)	(0.58%)	(0.45%)	
<b>75-84 y</b>	224	210	172	157	167	131	131	136	123	123	100	106	104	102	1,986
	(2.82%)	(2.72%)	(2.37%)	(2.25%)	(2.44%)	(1.93%)	(2.04%)	(2.09%)	(1.94%)	(2.06%)	(1.64%)	(1.81%)	(1.87%)	(1.84%)	
<b>≥85 y</b>	711	607	573	609	580	547	555	560	525	456	490	532	553	560	7,858
	(7.54%)	(6.70%)	(6.82%)	(7.09%)	(6.72%)	(6.24%)	(6.48%)	(6.50%)	(6.22%)	(5.58%)	(6.07%)	(6.39%)	(7.02%)	(6.81%)	
<b>Total</b>	<b>967</b>	<b>841</b>	<b>766</b>	<b>779</b>	<b>771</b>	<b>700</b>	<b>704</b>	<b>709</b>	<b>662</b>	<b>602</b>	<b>612</b>	<b>658</b>	<b>680</b>	<b>680</b>	<b>10,131</b>

**Supplementary Table 5.** Number of first-ever dementia diagnoses on death certificates in men by calendar year. In parentheses are listed the percentages of men without diagnosed dementia who get their first-ever dementia diagnosis on a death certificate.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
<b>65-74 y</b>	29	26	23	34	26	16	30	21	27	28	35	28	25	33	381
	(0.49%)	(0.45%)	(0.41%)	(0.61%)	(0.47%)	(0.29%)	(0.52%)	(0.37%)	(0.46%)	(0.48%)	(0.58%)	(0.47%)	(0.43%)	(0.56%)	
<b>75-84 y</b>	147	128	128	123	129	97	106	95	87	94	102	96	86	93	1,511
	(1.81%)	(1.60%)	(1.64%)	(1.66%)	(1.77%)	(1.37%)	(1.52%)	(1.34%)	(1.27%)	(1.41%)	(1.51%)	(1.47%)	(1.38%)	(1.45%)	
<b>≥85 y</b>	226	224	217	179	183	167	210	193	192	173	205	194	204	206	2,773
	(4.68%)	(4.51%)	(4.57%)	(3.78%)	(3.87%)	(3.53%)	(4.33%)	(3.91%)	(3.89%)	(3.54%)	(4.05%)	(3.83%)	(4.01%)	(3.87%)	
<b>Total</b>	<b>402</b>	<b>378</b>	<b>368</b>	<b>336</b>	<b>338</b>	<b>280</b>	<b>346</b>	<b>309</b>	<b>306</b>	<b>295</b>	<b>342</b>	<b>318</b>	<b>315</b>	<b>332</b>	<b>4,665</b>