

Shifting Cardiovascular Care to Nurses Results in Structured Chronic Care

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Internationally, in primary care, clinical tasks have been shifting from physicians to nurses in varying degrees. Reallocation of such tasks from family physicians (FPs) to nurses has been found to be associated with improved, or at least equivalent, quality and outcomes of chronic disease care.¹⁻⁵ The degree of reallocation of tasks varies across countries as a result of policy, organizational, and legal factors.⁶ In addition, the absence of robust evidence on the impact of such reallocation in natural settings (as opposed to controlled trials and demonstration projects) is an issue in decisions to shift clinical tasks to nonphysicians.

Better structuring of primary healthcare for patients with chronic diseases is expected to result in better outcomes for patients and societies,⁷ if it integrates all domains (eAppendix, available at www.ajmc.com) specified by the Chronic Care Model (CCM), a model created by Wagner.⁸ Allocation of tasks to nurses may contribute to better implementation of structured chronic care by increasing capacity and competence in specific areas, such as coordination and patient education, compared with healthcare delivered by physicians only.^{2,9}

Cardiovascular disease (CVD) remains a major cause of death and disability around the world, and many preventive measures focusing on CVD have been developed for use in public health and primary care.^{10,11} Reassigning some tasks usually performed by physicians to nurses can be applied in cardiovascular risk management (CVRM).^{12,13} Nurse-managed CVRM programs have been shown to improve patients' lifestyle, risk factor control, use of medications, and quality of life.¹³ These positive effects are based on the clinical knowledge and skills of nurses,¹⁴ but potentially also on their contribution to teamwork and practice organization.

Our study sought to explore the potential contribution of task allocation to primary care nurses to the implementation of structured chronic care for patients with cardiovascular conditions. The study focused on primary care practices in

ABSTRACT

Objectives

To explore nurse involvement in cardiovascular risk management (CVRM) in primary care and how this involvement was associated with the degree of structured chronic illness care.

Study Design

A cross-sectional observational study in 7 European countries.

Methods

Five aspects of nurse involvement in CVRM and 35 specific components of structured chronic illness care were documented in 202 primary care practices in Austria, Belgium, Germany, the Netherlands, Slovenia, Spain, and Switzerland. An overall measure for chronic care management, range 0 to 5, was constructed, derived from elements of the Chronic Care Model (CCM). Random coefficient regression modeling was used to explore associations.

Results

A majority of practices involved nurses for organization of CVRM in administrative tasks (82.2%), risk factor monitoring (78.5%) and patient education (57.1%). Fewer practices involved nurses in defining protocol and the organization for CVRM (45%) or diagnosis and treatment (34.6%). With an increasing number of tasks handled by nurses, overall median adoption of CCM increased from 2.7 (95% CI, 1.5-3.6) to 4.2 (95% CI, 3.8-4.1). When the number of nurse tasks increased by 1, the adoption of CCM increased by 0.13 ($P < .05$; 95% CI, 0.03-0.22). Some practices with low nurse involvement had high adoption of CCM, while variation of adoption of CCM across practices reduced substantially with an increasing level of nurse involvement.

Conclusions

Nurses were involved in the delivery of CVRM in varying degrees. Higher involvement of nurses was associated with higher degree of structured chronic illness care, with less variation.

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7 countries to try to get meaningful results from real clinical practice settings across various healthcare systems.

METHODS

Design and study population

This study was based on secondary analysis of data from the European Practice Assessment of Cardiovascular Risk Management Project (EPA Cardio Project), an observational study on CVRM in 315 primary care practices in 10 countries in 2008-2009.¹⁵ EPA Cardio focused on patients with CVD, patients at high risk for CVD, and healthy adults. Multiple measurement instruments were used, including chart reviews, patient surveys, and validated questionnaires on practice characteristics¹⁶ completed by FPs in the practices. For the present study, we included data from 202 practices in 7 countries: Austria, Belgium, Germany, the Netherlands, Slovenia, Spain, and Switzerland. Data from the remaining 3 countries were excluded from this analysis because the required data on nurse involvement in tasks concerning CVRM were missing.

Measures

For this study, we used data from the EPA Cardio Project's FP questionnaires—specifically, the data on practice characteristics (practice size, number of full-time-equivalent FPs and nurses) and the diversity of tasks assigned to FPs and nurses. For our purposes, “nurses” included both nurse practitioners and advanced practice nurses, all of whom performed clinical tasks in primary care practices.

We measured nurse and FP involvement in 5 specific tasks concerning CVRM: 1) administrative tasks, recalls, and recording (enrolling and selecting patients for periodic checkups, managing patient records, archiving laboratory results, and mail); 2) monitoring risk factors (periodic monitoring of blood pressure, smoking status, weight, cholesterol, etc.); 3) patient education and counseling (including discussion of control of diet and physical activity); 4) defining protocol and organization of CVD care (drafting protocols based on guidelines for CVD care, coordination of CVD consulting hours); and 5) diagnosis, risk assessment, and medical treatment (determining risk profile, periodic check-up for CVD patients, discussing medication).

These are tasks that the core group (consisting of researchers from the EPA Cardio research group) decided that nurses are presumably capable of performing.¹⁷ The tasks

Take-Away Points

Nurses were involved in the delivery of cardiovascular risk management (CVRM) in European primary care practices at varying degrees. Higher involvement of nurses was associated with better chronic care management, but some practices with low nurse involvement also provided well-structured chronic care management.

- Nurse involvement in cardiovascular risk management was limited in the sample of practices.
- Nurses were all involved in administrative tasks, recalls, and recording.
- The level of nurse involvement—rather than a nurse's mere presence—matters for implementation of structured chronic care.

were measured on a dichotomous answering scale (yes/no), and in addition, for each one, the degree of adoption of CCM was calculated using a list of 35 criteria (eAppendix).¹⁸ The measurements are translated into a score on a 0-to-5 scale based on the 5 practice-related domains derived from the CCM¹⁹, each of which has equal weight: 1) healthcare organization (7 items); 2) delivery system design (15 items); 3) decision support (3 items); 4) clinical information systems (6 items); and 5) self-management support (4 items). A higher total score means a greater degree of structured chronic illness care.

Practice size was determined from patient list size when available, and otherwise on yearly attending patient numbers. Results of both nurse practitioners and advanced practice nurses on the 5 specific CVRM tasks were combined.

Data analysis

Data analysis consisted of both descriptive and analytical methods. Random coefficient linear regression modeling was used to explore the effect of nurse involvement on structured illness care (adoption of CCM). The influence of the number of FP tasks and nurse tasks, nurse/FP ratio, and practice size on the adoption of CCM was also explored in the regression model. Two-level models were specified with practices nested in countries. Data analysis was performed using the SPSS 16.0 software package (Chicago, Illinois).

RESULTS

Study population

Table 1 shows characteristics of the practices in the 7 countries. The number of included primary care practices ranged from 21 in Switzerland and Germany to 36 in Spain. Spain had the largest mean practice size and Slovenia the smallest. In Austria, Germany, the Netherlands, and Spain, 100% of practices had a nurse employed. In Slovenia, 94.1% of practices employed a nurse, Switzerland 85.7%, and Belgium 33.3%. Overall, 89.6% (N = 177) of practices employed a nurse. The number of FP tasks varied

■ **Table 1.** Characteristics of Participating Practices (N = 202)

	Practice Size in No. of Patients (SD)	Nurse/Family Physician Ratio (SD)	Practices With Nurse, %	No. of Family Physician Tasks; range 0-5 (SD)	No. of Nurse Tasks; range 0-5 (SD)	Adoption of Chronic Care Model; range 0-5 (SD)
Austria (n = 31)	2943 (1307)	1.8 (0.5)	100	4.5 (0.8)	1.9 (0.6)	2.8 (0.6)
Belgium (n = 24)	2884 (2192)	0.4 (0.7)	33.3	4.7 (0.6)	1.5 (1.8)	3.3 (0.6)
Germany (n = 21)	4060 (1772)	1.9 (1.0)	100	4.2 (1.1)	3.6 (1.1)	3.2 (0.6)
Netherlands (n = 35)	3169 (1200)	1.2 (0.6)	100	4.1 (1.1)	3.9 (1.1)	3.7 (0.5)
Slovenia (n = 34)	2075 (813)	1.4 (0.6)	94.1	3.9 (0.7)	2.9 (1.1)	2.8 (0.8)
Spain (n = 36)	23761 (11619)	1.4 (0.3)	100	4.9 (0.5)	4.8 (0.5)	4.2 (0.2)
Switzerland (n = 21)	3514 (2462)	1.4 (0.6)	85.7	4.2 (0.7)	1.7 (1.3)	2.3 (0.7)
Total (n = 202)	6906 (9695)	1.4 (0.7)	89.6	4.4 (0.9)	3.2 (1.5)	3.3 (0.8)

■ **Table 2.** Family Physician and Nurse Involvement in Specific Tasks Related to Cardiovascular Risk Management (% of all family physicians/nurses)

Family practices by nation	Administrative Tasks, Recalls, and Recording		Monitoring Risk Factors		Patient Education and Counseling		Defining Protocol and Organization of Cardiovascular Care		Diagnosis, Risk Assessment, and Medical Treatment	
	Family Physician	Nurse	Family Physician	Nurse	Family Physician	Nurse	Family Physician	Nurse	Family Physician	Nurse
Austria (n = 31)	71.0	100	77.4	77.4	100	0	100	9.7	100	0
Belgium (n = 24)	86.4	18.2	100	13.6	100	13.6	87	0	100	9.1
Germany (n = 21)	63.2	89.5	78.9	94.7	84.2	78.9	89.5	73.7	100	26.3
Netherlands (n = 35)	71.4	85.7	77.1	97.1	68.6	85.7	97.1	54.3	97.1	65.7
Slovenia (n = 34)	39.4	86.7	87.9	86.7	90.9	63.3	78.8	40	97	16.7
Spain (n = 36)	88.9	100	100	100	97.2	100	100	97.2	100	86.1
Switzerland (n = 21)	50.0	72.2	94.4	50.0	77.8	33.3	100	16.7	100	0
Total mean (SD)	68.0 (18.1)	82.2 (28.4)	87.7 (10.4)	78.5 (31.7)	88.7 (12.1)	57.1 (38.3)	93.3 (8.3)	45.0 (35.7)	99.0 (1.4)	34.6 (33.8)

from 3.9 in Slovenia to 4.9 in Spain, while the number of nurse tasks varied from 1.5 in Belgium to 4.8 in Spain. The adoption of CCM was highest for practices in Spain and lowest for practices in Switzerland.

Nurse involvement

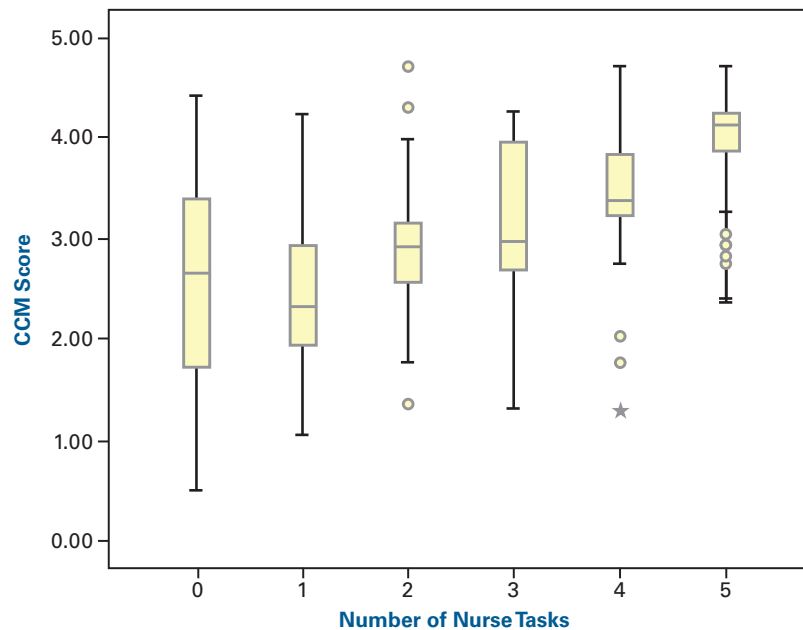
Considering nurse involvement in specific tasks, **Table 2** shows nurses were mostly involved in CVRM-related administrative tasks, recalls, and recording (82.2%) and least involved in diagnosis, risk assessment, and medical treatment (34.6%). FP involvement was highest in diagnosis, risk assessment, and medical treatment (99%) and lowest in administrative tasks, recalls, and recording (68%). For administrative tasks, recalls, and recording; monitoring risk factors; and patient education and counseling, most percentages of nurse involvement were above 50%. For the tasks defining protocol and organization of cardiovascular care and diagnosis, risk

assessment, and medical treatment, most percentages of nurse involvement were below 50%. Considerable variation between countries was found on involvement in specific tasks of both nurses and FPs.

Relation of nurse involvement to structured chronic illness care

Figure illustrates the number of nurse tasks related to the adoption of CCM. When more tasks were allocated to nurses, the mean adoption of CCM was higher. **Table 3** shows that the mean adoption of CCM in practices without nurse involvement was 2.6 (SD 1.3; 95% CI, 1.5-3.6) and in practices with nurse involvement on all tasks, the mean adoption of CCM was 4.0 (SD 0.5; 95% CI, 3.8-4.1). Practices without nurse involvement on CVRM-related tasks showed a minimum adoption of CCM of 0.5 and a maximum adoption of CCM of 4.4. For practices with nurse involvement on all CVRM-related tasks, the mini-

■ **Figure.** Adoption of Chronic Care Model Related to the Number of Nurse Tasks



*Indicates extreme value; o, outlier; end of the upper tail, 95th percentile value; end of the lower tail, 5th percentile value; upper limit of the box, 75th percentile value; lower limit of the box, 25th percentile value; horizontal line through box, median value.

num and maximum were 2.4 and 4.7. In practices where nurses had only 1 CVRM-related task, that task, in the vast majority, was administrative (eAppendix available at www.ajmc.com). Nurses with 2 tasks mostly had administrative tasks combined with monitoring risk factors. When nurses had 3 or 4 tasks, combination of tasks varied more. The mean adoption of CCM was lowest when nurses' tasks skewed towards the administrative (3.3, SD 0.9) and highest when the tasks included diagnosis, risk assessment, and medical treatment (4.0, SD 0.7). The eAppendix provides further explanation.

The Figure suggests visually that with increasing involvement of nurses, the variation on the adoption of CCM decreased. Low scores on the adoption of CCM were absent when nurses had more tasks. However, some practices without nurse involvement had high adoption of CCM.

Table 4 shows the results of the regression model. Number of tasks of FP and of nurse, nurse/FP ratio, and practice size were taken into account. Practice size showed no effect on the adoption of CCM ($P = .19$). The analysis included 155 cases. The degree of skewness was explored for the adoption of CCM. This variable was normally distributed. Results show that the number of nurse tasks had a positive effect on the adoption of CCM. When the number of nurse tasks increased by 1, the adoption of CCM increased by 0.13 ($P < .05$; 95% CI, 0.03-0.22). The

regression model used in this analysis explained 19% of the variance on the adoption of CCM.

DISCUSSION

Nurses were involved in the delivery of CVRM in this sample of European primary care practices, but in varying degrees. In a vast majority of practices, nurses were involved in administrative tasks, recalls, and recording, and they were least involved in diagnosis, risk assessment, and medical treatment of cardiovascular care. Involvement of nurses in more aspects of CVRM was associated with better structured chronic illness care, but some practices with limited nurse involvement, related to administrative tasks only, also provided well-structured chronic illness care.

The variation of nurse involvement in the delivery of CVRM in this study may have several determinants. Reallocation of tasks concerning CVRM could differ among types of nurses, although previous research has shown that mid-level providers, with different educational backgrounds, perform similar tasks.²⁰ Nurses' levels of training and experience²¹ could influence the outcomes, but they were not taken into account in this study. The definition of "nurse" applied in this study could also influence the outcomes.

Nurses' responsibility for chronic disease management may vary from practice to practice, dependent on the will-

■ **Table 3.** Association Between Number of Nurse Tasks and Adoption of Chronic Care Model

Number of nurse tasks (N)	Adoption of Chronic Care Model, 0-5 Score Scale (higher score = more chronic care management)				
	Min	Max	Median	Mean (SD)	95% CI
0 (8)	0.5	4.4	2.7	2.6 (1.3)	1.5-3.6
1 (15)	1.1	4.3	2.3	2.5 (0.8)	2.0-2.9
2 (42)	1.4	4.7	2.9	2.9 (0.7)	2.7-3.1
3 (30)	1.3	4.3	3.0	3.1 (0.8)	2.8-3.4
4 (31)	1.3	4.7	3.4	3.4 (0.7)	3.2-3.7
5 (51)	2.4	4.7	4.2	4.0 (0.5)	3.8-4.1

N indicates number of family practices.

■ **Table 4.** Impact of Nurse and Physician Involvement on Adoption of Chronic Care Model

	Adoption of Chronic Care Model		
	B ^a	95% CI	
Fixed Effects			
Number of physician tasks	-0.06	-0.17	0.05
Number of nurse tasks	0.13 ^b	0.03	0.22
Nurse/physician ratio	0.12	-0.03	0.27
Random Effects			
Level-two variance (country)	0.26 (SE 0.04)	0.07	0.95
Level-one variance (practice)	0.34 (SE 0.17)	0.27	0.43

^aUnstandardized b-weight.
^b $P < .05$.

ingness of FPs to delegate tasks.²² Of the practices in our study with low nurse involvement (less than 2 tasks on CVRM; N = 23) and with high adoption of CCM (>3.5), none employed other nonclinical staff members performing administrative tasks or other CVRM-related tasks. Overall, nurse involvement in CVRM was mixed, but limited in the sample of practices.

Our results showed that well-structured chronic care is possible in practices with little nurse involvement. With maximum nurse involvement, there is on average better chronic care with less variation in the adoption of CCM. Successfully organizing chronic illness care may well be dependent on elements of care not accounted for in this study. Practice characteristics like team size and workload could affect the organization of chronic illness care.¹⁸

Furthermore, it may be that better-organized practices are more likely to employ and retain nurses to manage chronic patients; a better-organized practice likely provides a better working climate for nurses, thus providing higher job satisfaction. Practice size could influence the organization of chronic illness care; evidence shows that in larger patient populations, more clinical tasks are per-

formed by healthcare providers other than physicians.²³ However, our study suggests practice size has no significant influence on the adoption of CCM.

Countries with strong primary care systems are expected to manage chronic conditions more effectively.^{24,25} Initiatives for improving the management of chronic conditions are in different stages of development in the participating countries. Initiatives in Austria and Belgium are in an early development stage.²⁴ Furthermore, national location may be a factor: In some countries, initiatives to improve management of chronic conditions are introduced nationally (eg, Germany), while in others (eg, the Netherlands) this is handled through local or regional projects. All German practices included in this study employed nurses with clinical tasks (monitoring such risk factors as blood pressure, smoking status, weight, cholesterol, etc). This indicates selection bias; previous research indicates that German nurses were mainly involved in administrative tasks like arranging appointments for patients, answering telephone calls, and preparing and providing patient files.²⁶

Our findings should be interpreted with caution as our study had a number of limitations. Practices volunteered to participate in this study. This convenience sample may

cause bias; it is also possible that participating practices are better organized concerning cardiovascular care management. Participating countries have differences in their overall organization of healthcare that may have caused bias; there also may have been differences, by country, in interpretation of the questionnaire. Also, in this study, only tasks concerning CVRM were considered. An inventory of tasks considering other chronic conditions such as diabetes mellitus or chronic obstructive pulmonary disease could have generated different results.

Tasks of nurses working on CVRM are predominantly administrative or include the monitoring of risk factors; they are less focused on organizational tasks. The effect of nurse involvement related to CVRM on the organization of chronic illness care is positive but modest. A meta-analysis related to the management of another chronic illness, diabetes, shows that team change is a key ingredient for improving chronic disease management on patient outcomes; it provided larger reductions in glycated hemoglobin values than other quality improvement strategies evaluated.²⁷ Furthermore, extending the role of nurses in the organization of chronic illness care could result in cost effectiveness²⁸ and higher patient satisfaction.²⁹ Another study investigating the clinical effectiveness of practice nurses acting as substitutes for FPs in CVRM found that practice nurses achieved equal or better results than FPs.³⁰ If nurses are given more responsibility for the organization of chronic illness care in general, in addition to the tasks that are directly related to patients, the adoption of CCM could become higher.

CONCLUSIONS

This study quantified the role of nurses in the organization of CVRM in primary care practices across Europe. More nurse involvement in CVRM was associated with better structured chronic illness care in primary care. To optimally utilize the added value of nurses in primary care, nurses should be engaged in all aspects of CVRM-related care, provided that their level of education is adequate. In general, giving nurses more responsibility for the organization of chronic illness care might engender higher job satisfaction for all staff members.

Because our study has an observational design, it is not possible to determine effectiveness regarding patient outcomes. Nevertheless, our results are of importance for decision-makers for 2 main reasons: First, the study is focused on natural settings (rather than a controlled trial or demonstration project), and second, the inclusion of various health systems provides a degree of control of confound-

ing contextual factors, thus contributing to more robust results. Our main finding is that the level of nurse involvement in CVRM, rather than the mere presence of a nurse, matters for implementation of structured chronic care.

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eAppendix A. Elements of the Chronic Care Model ⁸

Community resources and policies
<ul style="list-style-type: none">- Provider organizations are linked to community-based resources, for example, exercise programmes, self-help groups, and senior centers.
Healthcare Organization
<ul style="list-style-type: none">- Chronic care is seen as a priority, otherwise innovation will not take place.- Reimbursement of the healthcare organization has a major impact on chronic care improvements.- Chronic care quality needs to be rewarded by purchasers and insurers to sustain improvements.
Self-management support
<ul style="list-style-type: none">- Patients themselves become the principal caregivers. They learn to manage their illnesses and they control lifestyle issues themselves.- Self-management support involves collaboratively helping patients and their families acquire the skills and confidence to manage their chronic illness, providing self-management tools, and routinely assessing problems and accomplishments.
Delivery system design
<ul style="list-style-type: none">- Planned management of chronic conditions is separated from acute care.- Non-physicians support patient self-management, arrange for routine periodic tasks, and ensure appropriate follow-up.- Planned visits are an important feature of practice redesign.
Decision support

- Evidence-based clinical practice guidelines provide standards for optimal chronic care and should be integrated into daily practice through reminders.
- Specialist expertise is available and does not always require full specialty referral.
- Guidelines are reinforced by educational sessions for practice teams.

Clinical information systems

- Registries, a central feature of the chronic care model, are lists of all patients with a particular chronic condition on an organization's or physician's panel.
- Reminder systems help primary care teams comply with practice guidelines.
- The system provides feedback to physicians to show how each professional is performing on chronic illness measures.
- Registries are used to plan individual patient care and the population-based care.

eAppendix B. Items of adoption of Chronic Care Model based on five domains of Chronic Care Model

Health care organization

- 1 Does the practice have a procedure for the management of patient information in relation to detailed examination results and the documentation of measures that were taken (for example, blood examinations)?
- 2 Does the practice have a procedure for the management of patient information in relation to the review of detailed examination results by the doctor (in terms of outgoing needs)?
- 3 Does the practice use a system for reviewing medication prescribed to individual patients on a regular basis?
- 4 Does the practice produce an annual report?
- 5 Does the practice produce a quality report?
- 6 Has the practice undertaken at least one clinical audit in the last 12 months?
- 7 Does the practice have a critical incident register?

Delivery system design

Practice-led contact for patient groups

- 1 Does the practice use a system for recalling patients with cardiovascular diseases?
- 2 Does the practice use a system for recalling patients with diabetes?
- 3 Does the practice use a system for recalling patients with asthma/chronic obstructive pulmonary disease?

4 Does the practice use a system for recalling patients with hypertension?

Practice-led contact for prevention

1 Does the practice use a system for recalling populations at risk for preventive care regarding cardiovascular diseases?

2 Does the practice use a system for recalling populations at risk for preventive care regarding influenza?

3 Does the practice use a system for recalling populations at risk for preventive care regarding cervical screening?

4 Does the practice use a system for recalling populations at risk for preventive care regarding breast cancer screening?

Attendance rates for preventive activities

1 Does the practice have the attendance rate for cervical screening?

2 Does the practice have the attendance rate for influenza vaccination?

3 Does the practice have the attendance rate for breast cancer screening?

Preventive procedures

1 Does the practice have a procedure for prevention of pressure sores?

2 Does the practice have a procedure for prevention of osteoporosis?

3 Does the practice have a procedure for using folic acid by women who are pregnant or want to get pregnant?

4 Does the practice have a procedure for smoking cessation (for example, with the minimal intervention strategy)?

Decision support

1 Do the practice doctors have direct access to medical guidelines (either on paper or electronic) in their treatment rooms?

2 Do the practice doctors have direct access to (peer-reviewed) medical journals (either on paper or electronic)?

3 Do the practice doctors have direct access to literature data banks such as Medline/Pubmed or Cochrane?

Clinical information systems

1 Do you have internet access?

2 Do you have e-mail access in the practice?

3 Are the computers with internet access outfitted with anti-virus software?

4 Is the access to the practice computers protected, in that a user name and password have to be entered?

5 Does the practice use a computer-supported patient file system?

6 Is the computer used for creating medication prescriptions?

Self-management support

1 Are there information leaflets about cardiovascular disease (for example, coronary heart disease [CHD], stroke, hypertension, and stop smoking) available at the practice for patients to take home or read in the practice?

2 Does the practice have an up-to-date directory of prevention activities/organizations available locally (for example, gyms, walking group, and weight-watchers)?

3 Do you offer regularly written information on lifestyle?

4 Do you regularly offer advice about websites for education on health risks or healthy lifestyle?

eAppendix C. Impact of nurse involvement on adoption of the Chronic Care Model

Number of nurse tasks (N)	Adoption of Chronic Care Model				
	min	max	Mean (SD)	95% CI	Median
0 (8)	0.5	4.4	2.6 (1.3)	1.5-3.6	2.7
1 (15)	1.1	4.3	2.5 (0.8)	2.0-2.9	2.3
Defining protocol and organisation of cardiovascular care (1)	3.45				
Administrative tasks, recalls and recording (14)	1.1	4.3	2.4 (0.8)	1.9-2.8	2.4
2 (42)	1.4	4.7	2.9 (0.7)	2.7-3.1	2.9
Defining protocol and organisation of cardiovascular care (4)	2.6	4.7	3.5 (1.0)	1.9-5.1	3.3
Monitoring risk factors (39)	1.4	4.7	3.0 (0.7)	2.7-3.2	3.0
Patient education and counselling (4)	1.9	3.8	2.7 (0.9)	1.3-4.0	2.5
Administrative tasks, recalls and recording (37)	1.4	4.3	2.8 (0.6)	2.6-3.0	2.9
3 (30)	1.3	4.3	3.1 (0.8)	2.8-3.4	3.0
Defining protocol and organisation of cardiovascular care (9)	1.3	4.2	3.2 (0.9)	2.5-3.9	2.9
Diagnosis, risk assessment and medical treatment (3)	2.7	4.0	3.4 (0.6)	1.8-5.0	3.4
Monitoring risk factors (29)	1.8	4.3	3.2 (0.8)	2.9-3.5	3.0
Patient education and counselling (23)	1.3	4.3	3.0 (0.9)	2.7-3.4	3.0

Administrative tasks, recalls and recording (26)	1.3	4.3	3.0 (0.8)	2.7-3.4	3.0
4 (31)	1.3	4.7	3.4 (0.7)	3.2-3.7	3.4
Defining protocol and organisation of cardiovascular care (21)	1.8	4.7	3.5 (0.7)	3.1-3.8	3.4
Diagnosis, risk assessment and medical treatment (12)	1.3	4.2	3.3 (0.9)	2.7-3.9	3.5
Monitoring risk factors (31)	1.3	4.7	3.4 (0.7)	3.2-3.7	3.4
Patient education and counselling (31)	1.3	4.7	3.4 (0.7)	3.2-3.7	3.4
Administrative tasks, recalls and recording (29)	1.3	4.7	3.5 (0.7)	3.2-3.7	3.4
5 (51)	2.4	4.7	4.0 (0.5)	3.8-4.1	4.2
Specific tasks (number of practices with nurses with specific tasks)					
Administrative tasks, recalls and recording (157)	1.1	4.7	3.3 (0.9)	3.2-3.4	3.3
Monitoring risk factors (150)	1.3	4.7	3.4 (0.8)	3.3-3.6	3.5
Patient education and counselling (109)	1.3	4.7	3.6 (0.8)	3.4-3.7	3.8
Defining protocol and organisation of cardiovascular care (86)	1.3	4.7	3.7 (0.7)	3.6-3.9	4.0
Diagnosis, risk assessment and medical treatment (66)	1.3	4.7	3.8 (0.7)	3.7-4.0	4.0