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Interventions efficaces dans la prévention des maladies cardio-vasculaires et réalisables en soins primaires, extraites de l'analyse des références (partie 3) issues des recommandations de bonne pratique étudiées dans le cadre du projet international SPICES

Cécile Madeleine Guerin

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Madame GUERIN Cécile, Madeleine
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Table des matières

RÉSUMÉ :	11
ABSTRACT:	12
INTRODUCTION :.....	13
MATÉRIEL ET MÉTHODES :	16
RÉSULTATS :	19
DISCUSSION :	34
CONCLUSION :	41
BIBLIOGRAPHIE :	42
ANNEXE 1 :	50

RÉSUMÉ :

Introduction : Les maladies cardio-vasculaires sont la première cause de mortalité mondiale. Plus de trois quarts des décès ont lieu dans des pays à revenu faible ou intermédiaire. La diminution des facteurs de risque cardio-vasculaire modifiables permet de réduire la morbidité et la mortalité cardio-vasculaires. Le projet international SPICES a pour but de mettre en place des stratégies innovantes de prévention des maladies cardio-vasculaires en soins primaires, dans 5 pays au profil socio-économique différent.

L'objectif de ce travail était d'identifier parmi les références (partie 3) issues des Recommandations de Bonne Pratique (RBP) analysées dans le projet SPICES les interventions réalisables en soins primaires et efficaces dans la prévention des maladies cardio-vasculaires.

Méthode : L'accès aux articles permettait de retenir les interventions efficaces dans la prévention des maladies cardio-vasculaires et réalisables en soins primaires. Les critères d'exclusion étaient une population spécifique ou en prévention secondaire, un contexte de réalisation hospitalier, une intervention non efficace ou une absence d'intervention, une intervention médicamenteuse, un critère de jugement non courant.

Les critères d'inclusion étaient une population présentant des facteurs de risque cardiovasculaire, un contexte de mise en place au sein de la communauté, une intervention non médicamenteuse efficace, un critère de jugement d'usage courant.

Les références étaient ensuite classées par type d'intervention et la description précise de l'intervention était notée.

Résultats : Sur 150 références, 33 étaient inaccessibles, 70 ont été exclues, 47 ont été incluses. Parmi les références incluses 26 concernaient l'alimentation, 25 l'activité physique, 10 le tabagisme, 1 l'intoxication éthylique, 11 l'éducation à la santé et le mode de vie.

Conclusion : Il existe des interventions efficaces dans la diminution des facteurs de risque cardio-vasculaire modifiables et réalisables en soins primaires. La poursuite du projet SPICES permettra la mise en place d'interventions novatrices dans la prévention des maladies cardio-vasculaires en soins primaires.

ABSTRACT:

Introduction: Cardiovascular diseases are the first cause of death worldwide. Over three quarters of these deaths take place in low or middle-income countries. The decrease of behavioral cardiovascular risk factors reduces both cardiovascular morbidity and mortality. The international project SPICES aims at implementing innovative strategies in primary care cardiovascular prevention, in 5 countries of various socioeconomic statuses. The purpose of this work was to identify amongst the references stemming from the clinical practice recommendations studied in the SPICES project (part 3), the interventions feasible in primary care and efficient in cardiovascular prevention.

Methods: Access to articles permitted to select the interventions efficient in cardiovascular prevention and feasible in primary care. Exclusion criteria were a specific population, secondary prevention, a hospital setting, an absence of intervention or an inefficient intervention, a drug intervention, a primary endpoint not assessable in common practice. Inclusion criteria were population with cardiovascular risk factors, a community context, non-drug based and efficient intervention, primary endpoint usual in common practice. References were then sorted by intervention type and a precise description of the intervention was recorded.

Results: Over 150 references, 33 were not accessible, 70 were excluded, 47 were included. Amongst the included references, 26 concerned alimentation, 25 physical activity, 10 cigarette smoking, 1 alcohol overuse, 11 health education and way of life analysis.

Conclusion: There are efficient and feasible interventions to reduce cardiovascular risk factors in primary care. The pursuit of the SPICES project will permit to implement interventions in cardiovascular diseases prevention in primary care.

INTRODUCTION :

Les maladies cardio-vasculaires (MCV) sont l'ensemble des atteintes du muscle cardiaque et du système vasculaire. Elles rassemblent les cardiopathies congénitales, les cardiopathies ischémiques, les maladies cérébro-vasculaires, les artériopathies périphériques, les thromboses veineuses profondes et les embolies pulmonaires. Les MCV sont la première cause de mortalité au niveau mondial (31% de la mortalité mondiale), avec 17,7 millions de décès par an en 2015 (1). Les MCV sont la deuxième cause de mortalité en France après les cancers (2), soit 390313 décès chez les femmes en 2013 (première cause de mortalité féminine en France), et 531331 décès chez les hommes (deuxième cause de mortalité masculine en France) (3).

Un facteur de risque cardio-vasculaire est un élément clinique ou biologique, qui par son existence ou sa majoration augmente la morbidité et la mortalité cardio-vasculaires (4). Les facteurs de risque cardio-vasculaire non modifiables sont l'âge (supérieur à 50 ans chez l'homme, 60 ans chez la femme), le sexe masculin avant 75 ans, l'hérédité avec des antécédents d'événements cardio-vasculaires dits précoces, c'est-à-dire avant 55 ans chez le père et avant 65 ans chez la mère du sujet (4). L'insuffisance rénale chronique constitue également un facteur de risque cardio-vasculaire (5). Les facteurs de risque cardio-vasculaire modifiables regroupent le tabagisme, l'hypertension artérielle (HTA), les dyslipidémies, le diabète, l'obésité abdominale (6). Il existe trois facteurs protecteurs identifiés sur le plan cardio-vasculaire : la consommation de fruits et légumes, une activité physique régulière ainsi qu'une consommation modérée d'alcool (6). Le tabagisme représente en France la première cause évitable de mortalité, tuant un fumeur sur deux. C'est également la première cause de cancer et la deuxième cause de MCV (7). Le sevrage tabagique réduit de 30% le risque de développer un infarctus du myocarde (8). Le traitement efficace de l'HTA diminue de 15% le risque d'infarctus et de 40% le risque d'AVC (4). Le traitement efficace de l'hypercholestérolémie a permis de diminuer de 30% le nombre de décès induit par les MCV en vingt ans (4). Le maintien d'un IMC normal (entre 20 et 25) est protecteur sur le plan cardio-vasculaire (9). L'arrêt du tabagisme, la diminution de la consommation de sel, la

consommation de fruits et légumes et la pratique d'une activité physique régulière diminuent le risque de développer une MCV (1).

Plus de 75% des décès par MCV surviennent dans des pays au revenu faible ou intermédiaire où elles représentent un coût économique important (1). La difficulté de la prise en charge des facteurs de risque modifiables chez les individus des pays au revenu faible ou intermédiaire, réside dans leur accès limité aux programmes de soins primaires de détection précoce et de traitement des sujets à risque, contrairement aux sujets des pays à revenu élevé (1). Dans les pays à revenu élevé, la prise en charge des facteurs de risque modifiables est limitée par le coût des stratégies mises en œuvre et un budget de dépenses limité. L'application des stratégies les moins coûteuses à efficacité thérapeutique équivalente est préconisée (10).

L'Organisation Mondiale de la Santé (OMS) a mis en place en 2013 un Plan d'action mondial pour la lutte contre les maladies non transmissibles 2013-2020 (11). Son objectif est de prévenir les MCV des sujets les plus à risques, en particulier des sujets ayant peu accès ou recours au système de soins. Un des axes de travail est de permettre l'implémentation (c'est-à-dire la mise en place en pratique courante) de stratégies efficaces pour prévenir les MCV avec un coût financier maîtrisé afin de diffuser leur application dans les pays les plus pauvres et de diminuer le coût lié aux MCV dans les pays développés, où elles représentent le premier poste de dépenses de santé (10).

Le projet SPICES (Scaling-up Packages of Interventions for Cardiovascular disease prevention in selected sites in Europe and Sub-saharan Africa : an implementation research) a débuté en 2017 et s'achèvera en 2021. Il a pour but de mettre en place des stratégies de prévention et de contrôle des MCV à l'échelle des populations dans cinq pays au profil socio-économique différent : Ouganda, Afrique du Sud, Royaume-Uni, Belgique, et France. Ce projet international est financé intégralement par l'Union Européenne à hauteur de 5 902 038,75€ (12). Un état

des lieux de la prévention des MCV en France a été effectué. L'état des lieux au niveau local dans le pays Centre-Ouest-Bretagne est en cours.

La revue des recommandations de bonne pratique (RBP) étudiées dans le projet SPICES a été effectuée par huit Internes du Département de Médecine Générale de la Faculté de Médecine de Brest (13). La matrice de références a été obtenue par ce groupe de recherche en utilisant la méthode ADAPTE et le score Agree 2 à partir d'une revue de la littérature internationale des RBP sur la prévention cardio-vasculaire primaire (13). Leur travail a permis l'extraction d'une liste de références segmentée en 8 parties. Ce travail exploite la liste des références intitulée partie 3 qui comprend 150 références issues des RBP analysées dans le projet SPICES. Il a pour but de répondre à la question suivante : « Quelles interventions issues des références incluses dans la partie 3 sont réalisables en soins primaires et efficaces dans la prévention des MCV ? ».

MATÉRIEL ET MÉTHODES :

A partir de la liste de références composant la partie 3, les articles ont été recherchés tout d'abord via le moteur de recherche PubMed (14). Lorsque l'accès à l'article était payant, l'accès était obtenu grâce au Service Commun de Documentation de l'Université de Bretagne Occidentale (15), notamment grâce aux bases de données « Elsevier-Masson Premium » (16) et « Science-direct » (17). Certaines références ont été obtenues en passant par la plateforme « Google Scholar » (18). De façon ponctuelle quelques articles ont été obtenus par recherche sur un moteur de recherche général. Il s'agissait d'articles souvent anciens issus de revues peu distribuées, n'étant alors pas répertoriés dans les bases de données sus-citées.

Certaines références ont été exclues sur la lecture du titre et de l'abstract. Lorsque les informations de l'abstract étaient insuffisantes pour conclure, l'article était lu dans son intégralité afin de trouver les informations nécessaires pour déterminer l'inclusion de l'étude.

Critères d'exclusion :

Les critères d'exclusion étaient :

Population :

- Population spécifique : les populations composées uniquement d'enfants, adolescents, femmes enceintes et en post-partum
- Population en prévention secondaire : sujets ayant déjà présenté des MCV (coronaropathie, AVC, AOMI etc.)

Contexte :

- Études réalisées uniquement en milieu hospitalier, en laboratoire, en institution, ou nécessitant un plateau technique spécifique

Type d'intervention :

- Type d'intervention : études observationnelles, rapports, études qualitatives pures (absence d'intervention)
- Études avec une intervention non efficace, définie comme une non-supériorité de l'intervention testée
- Études sans calcul statistique
- Interventions médicamenteuses seules

- Critères de jugements explorant des données cliniques ou paracliniques n'appartenant pas à l'usage courant.

Critères d'inclusion :

Les critères d'inclusion étaient :

Population :

- Patients présentant des facteurs de risque cardio-vasculaire, mais n'ayant pas présenté de MCV. Les populations de sujets handicapés ou atteints de pathologies psychiatriques étaient incluses.

Contexte :

- Mise en place de l'étude au sein de la communauté

Type d'intervention :

- Intervention non médicamenteuse ou une intervention médicamenteuse présentant un bras d'intervention non médicamenteuse comparée avec un groupe témoin.
- Critère d'efficacité : comparaison des résultats de l'intervention sur deux groupes, avec une différence statistiquement significative.
- Critères de jugement dits d'usage courant : la survenue de maladies, de décès, d'hospitalisation, l'arrêt du tabagisme, le poids et l'Indice de Masse Corporelle (IMC), la pression artérielle, le dosage du cholestérol, de la glycémie, de l'hémoglobine glyquée.

Critères d'analyse :

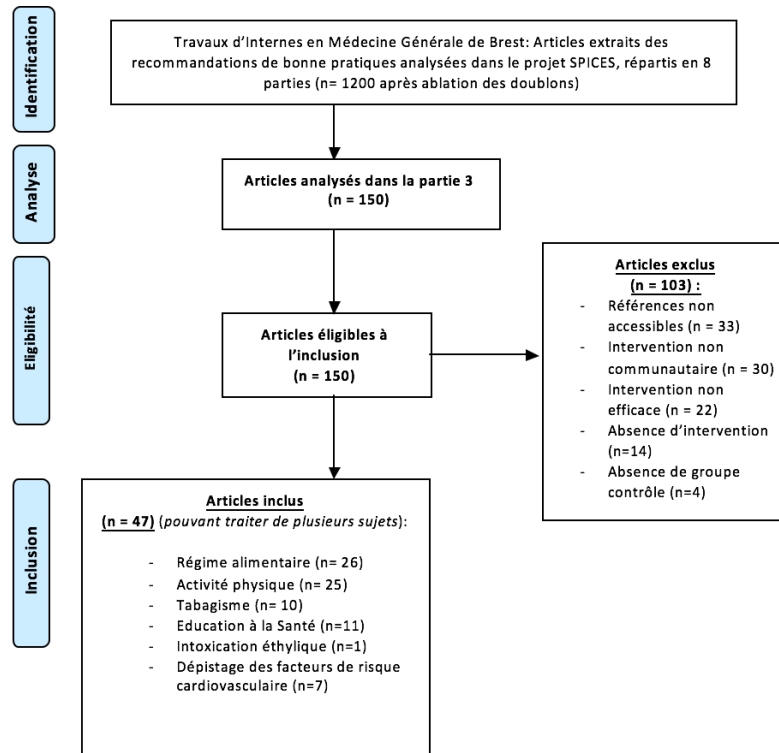
Une fois que la référence était incluse, l'article intégral était recherché et lu pour identifier le type d'étude : Randomized Controlled Trials, Before After Cohort Study, Meta Analysis. Ensuite une description de la stratégie mise en œuvre dans l'étude était effectuée et insérée dans la matrice. Lorsque l'intervention réalisée était extraite d'une première intervention (ex : application d'un type de régime), la méthode de la première intervention était extraite de l'article source pour obtenir la description précise de l'intervention (ex : caractéristiques quantitatives et qualitatives du régime). Pour chaque référence incluse, il a été recherché

spécifiquement si l'intervention était ponctuelle de type conseil bref ou s'il s'agissait d'une stratégie cherchant à modifier le comportement des sujets avec une répétition des interventions de type changement de comportement. Pour toutes les références incluses la date de publication a été indiquée.

Les études étaient classées selon les thèmes suivants : régime alimentaire, activité physique, tabagisme, éducation à la Santé et bilans de Santé.

RÉSULTATS :

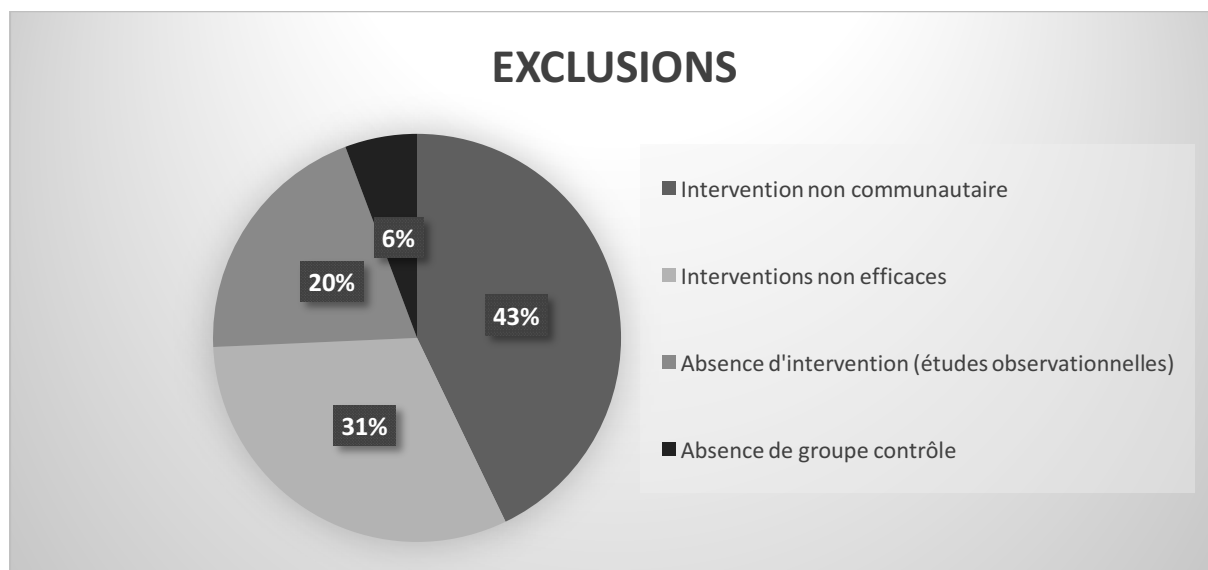
Figure 1 : Diagramme de flux de la sélection des références



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *BMC Med* 6(7): e1000097. doi:10.1371/journal.pmed.1000097

Sur les 150 références étudiées, 47 études ont été incluses. 33 références n'étaient pas accessibles (thèses américaines non publiées, revues anciennes et non accessibles par internet ou au service commun de documentation). 70 études ont été exclues, les motifs d'exclusions ont été résumés dans la Figure 2.

Figure 2 : Motifs des exclusions



Parmi les inclusions, c'est-à-dire les études avec une intervention efficace, 28 références ont été publiées avant 2000, 17 références dataient des années 2000 (entre 2000 et 2010) et 2 références étaient postérieures à l'année 2010.

Vingt-six études incluses étaient des Essais Contrôlés Randomisés ou Randomized Controlled Trials (RCT), 18 des Etudes de cohorte avant et après intervention ou Before After Cohort Studies (BAC). Trois études étaient des « Cross Sectionnal Surveys » (Etudes Transversales).

Concernant les interventions des études incluses, 29 références étudiaient des « Behavioral Strategies » (stratégies comportementales), et 18 références des « Brief Advice » (interventions de conseil ponctuelles).

26 références incluses concernaient l'alimentation, les interventions efficaces en soins primaires étaient :

6 références incluses concernaient l'éducation nutritionnelle :

- L'étude A70 étudiait des cours d'information sur les régimes alimentaires (19).
 - o Durée de l'intervention : 10 ans.

- Critère de jugement principal : cholestérol total, HDL-cholestérol, pression artérielle, glycémie à jeun, tabagisme, taille et poids.
- L'étude A148 a analysé l'efficacité de l'éducation nutritionnelle avec des réunions de groupes hebdomadaires menées par des nutritionnistes et des scientifiques spécialisés dans la science comportementale. Les sujets tenaient un journal alimentaire quotidien. Les intervenants conseillaient une diminution de la consommation des produits sucrés transformés, des plats en sauce ou plats avec du fromage, d'alcool, de viande et une augmentation de la consommation de fruits, jus de fruits (y compris en cuisinant), légumes verts, graines (20).
 - Durée de l'intervention : 14 semaines.
 - Critère de jugement principal : prises alimentaires reportées dans un journal quotidien.
- L'étude A115 a étudié des réunions de groupe et des rencontres individuelles avec des coaches de santé une fois par semaine, ainsi qu'un accès hebdomadaire à un site internet dédié permettant une automesure du poids et de l'apport calorique. Un email de rappel était envoyé en cas d'absence de connexion au site internet depuis 7 jours. Après connexion au site, des retours hebdomadaires sur l'évolution étaient transmis au participant, avec une synthèse mensuelle des progrès effectués (21).
 - Durée de l'intervention : 24 mois.
 - Critère de jugement principal : perte de poids.
- L'étude A135 a expérimenté des discussions de groupe sur 2h une fois par semaine sur le régime alimentaire, avec remise de guides pour faire les courses et adresses pour obtenir des aliments sains, remise du guide australien de diététique (22).
 - Durée de l'intervention : 4 semaines.
 - Critère de jugement principal : pression artérielle.
- L'étude A137 a étudié la remise d'un guide d'amélioration des comportements alimentaires basé sur des stratégies comportementales, avec soutien par le médecin généraliste et établissement par le patient de son propre objectif à atteindre (23).
 - Durée de l'intervention : 12 mois.
 - Critère de jugement principal : consommation de matières grasses et de fibres.
- L'étude A108 analysait la dispensation d'informations nutritionnelles en groupe (24).

- Durée de l'intervention : 6 mois.
- Critère de jugement principal : indice de masse corporelle.

10 références incluses étudiaient le régime alimentaire :

- Les études A40, A50 et A52 étudiaient la promotion d'une diminution de la consommation de sel associée à un régime alimentaire pauvre en énergie pour favoriser la perte de poids (25)(26)(27).
 - Durée de l'intervention (respectivement) : 3 ans (25), 3 ans (26), 6 ans(27).
 - Critère de jugement principal (respectivement) : excrétion de sodium, pression artérielle (25), perte de poids et pression artérielle (26), cholestérolémie, pression artérielle, consommation de matières grasses (27).
- L'étude A74 étudiait le suivi d'un régime pauvre en sel, viande, matières grasses, calories (28).
 - Durée de l'intervention : 3 ans.
 - Critère de jugement principal : consommation de sel, matières grasses, viande.
- L'étude A90 a analysé le suivi d'un régime pauvre en matières grasses, alcool, et riche en fibres (29).
 - Durée de l'intervention : 12 mois.
 - Critère de jugement principal : glycémie, poids, pression artérielle.
- L'étude A22 a étudié l'application d'un régime pauvre et très pauvre en énergie sur 12 semaines (30).
 - Durée de l'intervention : 12 mois.
 - Critère de jugement principal : cholestérolémie, glycémie, poids.
- L'étude A2 analysait l'application du régime « NCEP step 2 » à savoir une répartition des apports avec <30% de matières grasses, <7% de graisses saturées et <200 mg de cholestérol par jour. Ce régime était expliqué par des sessions individuelles et de groupe menées par des diététiciens (31).
 - Durée de l'intervention : 11 mois.
 - Critère de jugement principal : cholestérolémie.

- Les études A41 et A55 étudiait l'adaptation aux spécificités culinaires locales avec par exemple pour l'Afrique de l'Ouest, au Ghana, le conseil de ne pas resaler les aliments et la consigne de rincer les aliments conservés dans de la saumure avant de les consommer, avec des conseils de prévention des maladies infectieuses et des cours d'information sur l'hypertension artérielle (32), ou pour la Norvège la commercialisation de plats sous vide pauvres en matières grasses pour les marins passant plusieurs semaines en mer (33).
 - Durée de l'intervention (respectivement) : 6 mois (32), 6 ans (33).
 - Critère de jugement principal (respectivement) : pression artérielle, excrétion de sodium (32), pression artérielle, activité physique (33).
- L'étude A118 analysait la diminution de l'usage des aliments très salés, du sel ajouté à table ou en cuisinant, avec remise d'une documentation écrite sur le sujet (34).
 - Durée de l'intervention : 6 mois.
 - Critère de jugement principal : pression artérielle.

10 références incluses étudiaient des actions communautaires concernant l'alimentation :

- Les études A57, A74 et A85 ont étudié des sessions d'information prenant place dans les supermarchés pour apprendre à lire les étiquettes des produits alimentaires, et ainsi sélectionner les produits apportant peu de sel et de matière grasse (35)(28)(36), et l'étude A87 a analysé le test d'aliments peu gras et peu salés pour encourager les clients des supermarchés à les consommer (37).
 - Durée de l'intervention (respectivement) : 8 ans (35), 4 ans (28), 5 ans (36), 5 ans (37).
 - Critère de jugement principal (respectivement) : poids, IMC, pression artérielle, cholestérolémie (35), consommation de sel, matières grasses, viande (28), pression artérielle, poids (36), pression artérielle, poids, cholestérolémie (37).
- Les études A55, A73, A87 ont étudié des cours de cuisine pour apprendre à cuisiner « sainement » (33)(38)(37). L'étude A85 analysait également l'organisation de concours de recettes (36).
 - Durée de l'intervention (respectivement) : 6ans (33), 2 ans (38), 5 ans (37), 5 ans (36).

- Critère de jugement principal (respectivement) : pression artérielle, activité physique (33), consommation de fruits et légumes, poids, cholestérolémie (38), pression artérielle, poids, cholestérolémie (37), pression artérielle, poids (36).
- L'étude A73 a étudié l'organisations de dîners « sains » au sein de la communauté (38).
 - Durée de l'intervention : 2 ans.
 - Critère de jugement principal : consommation de fruits et légumes, poids, cholestérolémie.
- Les études A85 et A87 ont étudié un système d'étiquetage des menus sains pour la prévention cardio-vasculaire au restaurant (36)(37).
 - Durée de l'intervention : 5 ans (36), 5 ans (37).
 - Critère de jugement principal : pression artérielle, poids (36), pression artérielle, poids, cholestérolémie (37).
- L'étude A104 analysait la distribution de bons d'achats pour des fruits et légumes frais issus de l'agriculture locale (39).
 - Durée de l'intervention : 15 mois.
 - Critère de jugement principal : consommation de fruits et légumes.
- L'études A136 a étudié les interventions sur le lieu de travail avec notamment une campagne d'information pour augmenter la consommation de fruits et légumes (brochures, posters, stand d'information, flyers ajoutés à la feuille de paie, newsletters, cours de cuisine) (40), les études A136 et A139 ont étudié l'étiquetage des aliments servis à la cafétéria (40)(41) et la remise d'un guide d'aide individuelle (40). L'étude A139 analysait également l'organisation d'activités de groupe après auto-évaluation de l'état de santé des employés grâce à un questionnaire, avec éducation nutritionnelle et apprentissage de techniques comportementales afin de modifier les habitudes alimentaires.
 - Durée de l'intervention (respectivement) : 2 ans (40), 2 ans (41).
 - Critère de jugement principal (respectivement) : consommation de fruits et légumes (40), pression artérielle, cholestérolémie (41).
- L'étude A140 a analysé l'organisation d'un concours de recettes de cuisine en utilisant des recettes de famille des employés (modifiées si besoin pour être saines) (42).

- Durée de l'intervention : 3 ans.
- Critère de jugement principal : accès à de la nourriture saine, accès à des informations nutritionnelles sur le lieu de travail.

25 références incluses concernaient l'activité physique, les interventions efficaces en soins primaires étaient :

5 références incluses étudiaient l'exercice aérobie :

- L'étude A116 analysait la marche lente à hauteur de quatre sessions de 30 minutes par semaine, avec enregistrement quotidien de la durée des activités physiques, sessions de groupe hebdomadaires et sessions individuelles ponctuelles avec retour sur les stratégies comportementales des participants (43).
 - Durée de l'intervention : 6 mois.
 - Critère de jugement principal : pression artérielle.
- L'étude A34 analysait des sessions de marche de 10-15 ou 20-40 minutes, 60 à 200 minutes par semaine, à 70-75% de la VO2 max, sur 12 semaines (44).
 - Durée de l'intervention : 12 semaines.
 - Critère de jugement principal : cholestérolémie, fréquence cardiaque.
- L'étude A118 étudiait la marche rapide avec trois sessions de 40 minutes par semaine, avec possibilité de remplacer la marche par l'un des sports suivant : tennis de table, natation, golf. Conseil sur l'activité physique rédigés par le Médecin Généraliste et remise d'une documentation écrite (34).
 - Durée de l'intervention : 6 mois.
 - Critère de jugement principal : pression artérielle.
- L'étude A22 étudiait la pratique de 2 à 6h de marche par semaine au domicile, avec enregistrement du nombre de pas quotidiens et une séance d'exercices supervisée par semaine (30).
 - Durée de l'intervention : 12 mois.
 - Critère de jugement principal : cholestérolémie, glycémie, poids.

- L'étude A 18 a analysé la pratique de sessions de groupe de 2h de Qi-Jong une fois par semaine, avec encouragement à la pratique du Qi-Jong au domicile (45).
 - Durée de l'intervention : 4 mois.
 - Critère de jugement principal : IMC, cholestérolémie, hémoglobine glyquée.

8 références incluses étudiaient l'exercice physique mixte :

- L'article A2 étudiait l'activité physique en groupe trois fois par semaine (31).
 - Durée de l'intervention : 11 mois.
 - Critère de jugement principal : cholestérolémie.
- L'article A6 analysait la pratique d'1h30 d'activité physique en groupe une fois par semaine avec un objectif d'augmentation du nombre de pas quotidiens de 2000 à 3000 pas (un podomètre était fourni aux participants) (46).
 - Durée de l'intervention : 24 mois.
 - Critère de jugement principal : cholestérolémie.
- L'article A9 a étudié la pratique de 2h de jogging (ou alternance marche et jogging selon les capacités physiques) par semaine (à effectuer en 2 à 6 sessions au total) (47).
 - Durée de l'intervention : 4 mois.
 - Critère de jugement principal : pression artérielle, cholestérolémie.
- L'article A 23 étudiait la pratique de 3 séances de sport d'une heure par semaine sur des appareils de fitness, menées par un professeur d'activité physique, avec un objectif de fréquence cardiaque à 60-80% de la fréquence cardiaque de récupération (48).
 - Durée de l'intervention : 8 mois.
 - Critère de jugement principal : cholestérolémie.
- L'article A52 étudiait l'augmentation de l'activité physique modérée et intense (27).
 - Durée de l'intervention : 6 ans.
 - Critère de jugement principal : cholestérolémie.
- L'article A61 étudiait la pratique d'une activité physique intense 30 minutes trois fois par semaine (49).
 - Durée de l'intervention : 1 an.
 - Critère de jugement principal : pression artérielle, cholestérolémie, fréquence cardiaque de repos, IMC.

- L'étude A108 a analysé l'établissement d'un plan d'exercices physiques basé sur les préférences du participant et l'application de théories socio-cognitives et d'auto-productivité dans la réalisation des activités physiques (24).
 - Durée de l'intervention : 6 mois.
 - Critère de jugement principal : IMC, tour de taille.
- L'étude A115 analysait l'application d'un plan d'activité physique avec des réunions de groupe et des rencontres individuelles avec des coaches de santé une fois par semaine, ainsi qu'un accès hebdomadaire à un site internet dédié afin de tracer l'activité physique réalisée dans la semaine. Un email de rappel était envoyé en cas d'absence de connexion au site internet depuis 7 jours. Après connexion au site, des retours hebdomadaires sur l'évolution étaient transmis au participant, avec une synthèse mensuelle des progrès effectués (21).
 - Durée de l'intervention : 24 mois.
 - Critère de jugement principal : perte de poids.

7 références incluses analysaient la promotion de l'activité physique :

- Les études A70 et A87 ont analysé l'effet de campagnes de promotion d'une activité physique régulière (19)(37).
 - Durée de l'intervention (respectivement) : 10 ans (19), 5 ans (37).
 - Critère de jugement principal (respectivement) : cholestérolémie, pression artérielle, glycémie à jeun, tabagisme, taille et poids (19), pression artérielle, poids, cholestérolémie (37).
- L'étude A147 analysait la promotion de la pratique de la marche de façon quotidienne grâce aux médias de masse, en se servant de personnalités connues et de séries télévisées (50).
 - Durée de l'intervention : 1 an.
 - Critère de jugement principal : auto-évaluation de la pratique de la marche à pied.

- L'étude A90 a étudié la proposition du choix de l'activité physique à l'échelle locale avec participation à une activité sportive ou participation à l'entretien de la commune, seul ou en groupe (29).
 - Durée de l'intervention : 12 mois.
 - Critère de jugement principal : glycémie, poids, pression artérielle.
- L'étude A87 étudiait l'organisation d'un challenge collectif à l'échelle d'une ville avec un objectif de distance globale parcourue (37).
 - Durée de l'intervention : 5 ans.
 - Critère de jugement principal : pression artérielle, poids, cholestérolémie.
- L'étude A55 a étudié l'encouragement à pratiquer une activité sportive (33), et les études A68 et A73 ont étudié l'encouragement à s'inscrire à un club de marche ou de vélo, avec des campagnes de promotion des clubs sportifs (51)(38).
 - Durée de l'intervention (respectivement) : 6 ans (33), 5 ans (51), 2 ans (38).
 - Critère de jugement principal (respectivement): pression artérielle, activité physique (33), IMC, pression artérielle, cholestérolémie, tour de taille (51), consommation de fruits et légumes, poids, cholestérolémie (38).

5 références incluses étudiaient les actions communautaires visant l'activité physique :

- Les études A89 et A103 ont analysé l'encouragement à utiliser les escaliers plutôt que les escalators dans les galeries commerciales, à l'aide de panneaux (52)(53), et l'étude A143 a analysé l'encouragement à utiliser les escaliers plutôt que les escalators dans le métro écossais (54).
 - Durée de l'intervention (respectivement) : 6 semaines (52), 1 semaine (53), 3 semaines (54).
 - Critère de jugement principal (respectivement) : usage des escaliers (52)(53)(54).
- Les études A139 et A142 ont étudié l'organisation sur le lieu de travail d'activités de groupe après auto-évaluation de l'état de santé des employés grâce à un questionnaire, avec mise à disposition d'appareils de fitness dans l'enceinte du lieu de travail ou dans des locaux proches (41)(55), accompagnée d'un séminaire de

description des activités proposées avec informations sur les bienfaits de l'activité physique sur la santé (55).

- Durée de l'intervention (respectivement) : 2 ans (41), 2 ans (55).
- Critère de jugement principal (respectivement) : pression artérielle, cholestérolémie (41), activité physique rapportée (55).

10 références incluses concernaient le tabagisme, les interventions efficaces en soins primaires retrouvaient :

- Les études A52, A55, A139, A140 étudiaient la restriction du tabagisme sur le lieu de travail et en dehors avec éducation sur les conséquences néfastes du tabagisme sur la santé et encouragement à arrêter de fumer (27)(33)(41)(42).
 - Durée de l'intervention (respectivement) : 6 ans (27), 6 ans (33), 2 ans (41), 3 ans (42).
 - Critère de jugement principal (respectivement) : tabagisme, pression artérielle, cholestérolémie (27), tabagisme, pression artérielle (33)(41), tabagisme (42).
- Les études A70 et A87 ont étudié une campagne de promotion afin d'arrêter de fumer (19), objectif d'obtenir l'engagement de 200 participants à arrêter de fumer (37), l'étude A61 a analysé le conseil aux non-fumeurs dans le but d'aider les fumeurs à arrêter (49).
 - Durée de l'intervention (respectivement) : 10 ans (19), 5 ans (37), 1 an (49).
 - Critère de jugement principal (respectivement) : cholestérolémie, pression artérielle, glycémie à jeun, tabagisme, taille et poids (19), pression artérielle, poids, cholestérolémie (37), pression artérielle, cholestérolémie, tabagisme, monoxyde de carbone expiré (49).
- Les études A60, A68, A85 ont analysé l'éducation pour arrêter de fumer avec remise de documentation, campagne de prévention du tabagisme au sein des écoles et dans les médias (56)(51)(36).
 - Durée de l'intervention (respectivement) : 7 ans (56), 5 ans (51), 5 ans (36).
 - Critère de jugement principal (respectivement) : pression artérielle, cholestérolémie, tabagisme (56)(51), pression artérielle, tabagisme (36).

19 références incluses concernaient d'autres domaines, les interventions efficaces en soins primaires retrouvaient :

1 référence incluse étudiait l'intoxication éthylique :

- L'étude A106 étudiait la réalisation d'une consultation de groupe et individuelle avec le médecin traitant pour diminuer la consommation d'alcool, avec remise de conseils écrits, informations, résultats de prises de sang (57).
 - Durée de l'intervention : 1 an.
 - Critère de jugement principal : consommation d'alcool rapportée.

11 références incluses analysaient l'éducation à la santé et le mode de vie :

- Les études A52 et A59 ont analysé l'éducation à la santé au sein de la communauté pour promouvoir un mode de vie sain et diminuer les facteurs de risque cardiovasculaire avec apprentissage de compétences et support social, intervention menée par les structures de soin et les organisations locales (27)(58).
 - Durée de l'intervention (respectivement) : 6 ans (27), 15 ans (58).
 - Critère de jugement principal (respectivement) : connaissances nutritionnelles, cholestérolémie, consommation de matières grasses, pression artérielle, poids (27), pression artérielle, cholestérolémie, taux de mortalité cardio-vasculaire, handicap induit par les MCV (58).
- L'étude A90 a analysé la réalisation de réunions mensuelles pour comprendre le mode de vie au sein de la communauté, avec interventions visant à promouvoir l'éducation à la santé, en utilisant la culture locale, avec remise de documentation écrite et réponses à des interviews détaillées sur la perception de la santé et du mode de vie des membres de la communauté (29).
 - Durée de l'intervention : 12 mois.
 - Critère de jugement principal : pression artérielle, poids, IMC, glycémie, consommation d'amidon, activité physique rapportée, régime alimentaire rapporté.
- L'étude A55 étudiait la création d'un support de promotion de la santé par des organisations locales avec contribution des individus : idées et suggestions permettant

l'amélioration de l'état de santé à l'échelle de la communauté, support ensuite largement distribué dans les écoles, lieux de travail, administrations publiques (33).

- Durée de l'intervention : 6 ans.
- Critère de jugement principal : pression artérielle, activité physique.
- Les études A85 et A87 étudiaient l'utilisation des tableaux d'information et journaux locaux pour promouvoir l'éducation à la santé (36)(37) et utilisation des médias : radio, télévision ; posters dans les lieux de soin, dans les supermarchés, dans les écoles (56)(51)(19)(36) ; l'étude A57 analysait l'utilisation des arts (théâtre, musique) et de réunion informelles pour promouvoir un mode de vie sain (35).
 - Durée de l'intervention (respectivement) : 5 ans (36), 5 ans (37), 7 ans (56), 5 ans (51), 10 ans (19), 8 ans (35).
 - Critère de jugement principal (respectivement) : pression artérielle, tabagisme (36), pression artérielle, poids, cholestérolémie (37), pression artérielle, cholestérolémie, tabagisme (56)(51), cholestérolémie, pression artérielle, glycémie à jeun, tabagisme, taille et poids (19), pression artérielle, poids, IMC, cholestérolémie (35).
- L'étude A73 étudiait la publication d'un article hebdomadaire concernant la prévention cardio-vasculaire dans le journal local, avec mesure de pression artérielle, recherche de diabète et d'hypercholestérolémie au sein d'une communauté (38).
 - Durée de l'intervention : 4 ans.
 - Critère de jugement principal : activité physique rapportée, cholestérolémie, poids, consommation de fruits et légumes, tabagisme.
- L'étude A85 analysait l'éducation des professionnels intervenant sur l'éducation à la santé afin d'améliorer l'observance des conseils donnés (36).
 - Durée de l'intervention : 5 ans.
 - Critère de jugement principal : pression artérielle, tabagisme, IMC.
- L'étude A87 étudiait l'élaboration d'une base de documentation de promotion de la santé, avec distribution des documents sur les lieux de travail (37).
 - Durée de l'intervention : 5 ans.
 - Critère de jugement principal : pression artérielle, poids, cholestérolémie, activité physique rapportée.

7 références incluses étudiaient le dépistage des facteurs de risque cardio-vasculaire :

- Les études A60, A70 et A85 étudiaient le dépistage des facteurs de risque cardio-vasculaires sur les lieux de travail, dans les festivals locaux (56)(19)(36).
 - Durée de l'intervention (respectivement) : 7 ans (56), 10 ans (19), 5 ans (36).
 - Critère de jugement principal (respectivement) : pression artérielle, cholestérolémie, tabagisme (56), cholestérolémie, pression artérielle, glycémie à jeun, tabagisme, taille et poids (19), pression artérielle, tabagisme, IMC (36).
- Les études A63 et A65 étudiaient le dépistage des facteurs de risque cardio-vasculaire et le calcul du risque cardio-vasculaire individuel, avec éducation à la santé par des infirmières formées à la prévention cardio-vasculaire, remplissage d'une liste d'objectifs de changement de comportements (alimentation, consommation d'alcool, tabagisme, poids, activité physique) sur un support dédié, permettant un suivi de l'évolution (59)(60).
 - Durée de l'intervention (respectivement) : 3 ans (59), 1 an (60).
 - Critère de jugement principal (respectivement) : pression artérielle, cholestérolémie, IMC, tabagisme, activité physique rapportée, régime alimentaire rapporté (59), pression artérielle, tabagisme, poids, glycémie, cholestérolémie, risque coronarien selon l'échelle Dundee (60).
- L'étude A64 analysait le dépistage des facteurs de risque cardio-vasculaire et le calcul du risque cardio-vasculaire individuel avec consultation de 45 minutes avec le médecin traitant, remise d'une analyse rédigée par le Médecin Généraliste, avec conseils à appliquer afin de diminuer ce risque, remise d'une documentation écrite et fixation de 3 objectifs à remplir dans l'année afin d'améliorer la prévention cardio-vasculaire (61).
 - Durée de l'intervention : 5 ans.
 - Critère de jugement principal : risque cardio-vasculaire, IMC, pression artérielle, cholestérolémie, tabagisme, expiration de monoxyde de carbone.
- Les études A57 et A60 étudiaient le dépistage des facteurs de risque cardio-vasculaire et le calcul du risque cardio-vasculaire individuel en centre dédié à la prévention des MCV, l'éducation à la santé avec supports vidéos et écrits (35)(56).
 - Durée de l'intervention (respectivement) : 8 ans (35), 7 ans (56).

- Critère de jugement principal (respectivement) : pression artérielle, poids, IMC, cholestérolémie (35), pression artérielle, cholestérolémie, tabagisme, IMC (56).

DISCUSSION :

Résultats principaux :

47 études de la partie 3 issue des RBP sélectionnées par SPICES ont été incluses. Les études incluses analysaient une ou plusieurs interventions ; 26 références étudiaient le régime alimentaire, 25 l'activité physique, 10 le tabagisme, 11 l'éducation à la santé, 1 l'intoxication éthylique et 7 le dépistage des facteurs de risque cardio-vasculaire.

- Concernant le régime alimentaire, la diminution de la consommation de matières grasses, de produits sucrés, de sel, de viande et l'augmentation de la consommation de fruits, légumes, noix et céréales complètes, poissons gras diminuent les facteurs de risque cardio-vasculaire. La tenue d'un journal alimentaire, les réunions de groupes menées par un nutritionniste et l'instauration d'un label pour étiqueter les aliments sains dans les supermarchés et les menus sains au restaurant sont également efficaces dans la diminution des facteurs de risque cardio-vasculaire. La distribution de coupons pour acheter des fruits et légumes issus de l'agriculture locale, les cours de cuisine, les concours de recettes de cuisine et l'organisation de repas sains au sein de la communauté ont également démontré leur efficacité dans la diminution des facteurs de risque cardio-vasculaire.
- Concernant l'activité physique, la pratique de la marche en plusieurs sessions par semaine pour une durée totale hebdomadaire entre 2 et 6h, la pratique d'une activité douce type « Qi-Jong » 2h par semaine en groupe avec auto-exercice au domicile sont efficaces dans la diminution des facteurs de risque cardio-vasculaire. La pratique de sport de moyenne intensité en groupe 3 fois par semaine, par séances d'une heure ou une heure et demi menées par un moniteur d'éducation physique, avec ou sans appareil de fitness est également efficace pour diminuer les facteurs de risque cardio-vasculaire. La pratique d'une activité physique intense à hauteur de 30 minutes 3 fois par semaine et la pratique de la course à pied 2h par semaine en 2 sessions ou plus ont également démontré leur efficacité dans la diminution des facteurs de risque cardio-vasculaire.

La promotion de l'activité physique avec l'encouragement à s'inscrire à un club de sport et à pratiquer du sport sur le lieu de travail, ainsi que l'incitation à emprunter les

escaliers plutôt que les escalators se sont avérés efficaces pour diminuer les facteurs de risque cardio-vasculaire.

- Concernant le tabagisme, l'interdiction de fumer sur le lieu de travail et en dehors avec une éducation sur les conséquences néfastes du tabagisme, un encouragement à arrêter de fumer et une vaste diffusion dans les médias de messages anti-tabac ont prouvé leur efficacité pour diminuer les facteurs de risque cardio-vasculaire.
- Concernant l'intoxication éthylique, l'organisation de consultations individuelles et de groupe avec le médecin traitant, avec remise et explication des résultats de prise de sang s'est avérée efficace pour diminuer les facteurs de risque cardio-vasculaire.
- Concernant l'éducation à la santé, les réunions de groupe avec analyse du mode de vie de la communauté, cours d'éducation à la santé, promotion de la santé en s'adaptant à la culture locale et l'utilisation large des médias pour promouvoir un mode de vie sain ont prouvé leur efficacité pour diminuer les facteurs de risque cardio-vasculaire.
- Concernant le dépistage des facteurs de risque cardio-vasculaire, le dépistage de ces facteurs sur le lieu de travail, dans des festivals locaux, dans un centre de prévention dédié, par des infirmières formées à la prévention cardio-vasculaire avec calcul d'un risque cardio-vasculaire individuel, éducation à la santé, remplissage d'un support de suivi des objectifs à atteindre pour diminuer ces facteurs de risque ont prouvé leur efficacité dans la diminution des facteurs de risque cardio-vasculaire.

Forces et limites de l'étude :

La principale force de ce travail réside dans la méthode mise en place. Il a permis à partir de 150 références issues des Recommandations de Bonne Pratique étudiées dans le projet SPICES d'isoler les interventions efficaces, et de structurer la présentation des références incluses en identifiant des pôles d'intervention, tout en conservant la description précise des interventions. En outre, l'efficacité de la même intervention dans plusieurs études différentes a renforcé la validité des résultats de chaque étude.

Une des limites de ce travail pouvait être un biais de sélection. Un nombre important de références issues des guides a été inaccessible malgré l'utilisation de multiples supports de

recherche : trente-trois références. Cette limite était inattendue car les références sont issues des RBP internationales. Ces RBP sont périodiquement réactualisées à partir de la bibliographie la plus complète disponible. Le lecteur s'attend à pouvoir se reporter facilement à des articles du plus haut niveau de preuve disponible et récents. Plus de la moitié des publications retenues par les RBP datent de plus de 15 ans (datées de 1982 à 1999). Ainsi les moyens de communication actuels comme les smartphones ne sont pas étudiés dans les références sélectionnées.

Un biais d'information était possible. Les études avec un résultat positif sont plus publiées que les études à résultat négatif (62). La littérature internationale a servi de base bibliographique pour les RBP. Puis ce travail a isolé parmi les études sélectionnées par les RBP les interventions efficaces et réalisables en soin primaire. Or certaines interventions ont pu échouer dans certains contextes et donc ne jamais apparaître dans les résultats.

Enfin la diversité des critères de jugement peut limiter la comparaison des interventions entre elles, dans la mesure où elles ne jugent pas le même critère, entraînant un biais de confusion.

Mise en perspective avec la littérature internationale :

D'après Sigurdsson et al., le suivi d'une cohorte de sujets d'âge moyen sur 15 ans en Finlande a permis de démontrer que la prévention cardio-vasculaire en population générale associe un régime alimentaire sain, pauvre en sel, en sucre et en graisses saturées, avec une abstention tabagique, une consommation d'alcool modérée, un contrôle du poids et la pratique d'une activité physique d'intensité modérée régulière (63).

Plusieurs interventions de prévention primaire ont prouvé leur efficacité à l'échelle des populations, notamment le programme d'éducation à la santé au sein de la communauté « Stanford five-city » mené en Californie du Nord entre 1980 et 1986 étudié par Fortmann et al. ou encore le programme d'éducation à la santé « Live for life » mené en Suède de 1995 à 1996 décrit par Lingfors et al. (64)(65). Par ailleurs, la mise à jour de 2013 du guide de l'American Heart Association pour améliorer la santé cardio-vasculaire à l'échelle de la

communauté indique que les changements comportementaux sont plus efficaces s'ils sont appliqués à l'échelle de la population (66).

Les facteurs de risque cardio-vasculaire suivants ont été retrouvés dans toutes les catégories socio-économiques des populations étudiées dans 52 pays : HTA, dyslipidémie, diabète, obésité abdominale, hypertension artérielle, tabagisme comme le montrent Yusuf et al. dans l'étude INTER-HEART. La consommation de fruits et légumes et la pratique d'une activité physique régulière constituent un facteur protecteur contre ces facteurs de risque, indiquant l'efficacité d'une approche uniforme dans la prévention cardio-vasculaire à travers le monde comme le précisent Stewart (membre de l'institut de recherche cardio-vasculaire de l'université de Londres) et al. dans leur revue de la littérature et des guides de RBP dans la prévention primaire des MCV (6)(67).

L'hypercholestérolémie, qui augmente l'incidence des MCV, est liée à la consommation de matières grasses saturées (6)(67). Face à ce constat, des mesures prônant la modification du régime alimentaire à l'échelle des populations ont été recommandées (6). Concernant le régime alimentaire, il est recommandé d'après le guide européen de prévention en pratique clinique des MCV, version 2016, établi par le sixième groupe de travail de la Société Européenne de Cardiologie, de consommer quotidiennement au moins 200g de fruits et 200g de légumes (soit 2 ou 3 fruits et 2 ou 3 légumes), 30 à 45g de fibres (préférentiellement provenant de céréales complètes), 30g de noix non salées, 2 portions de poisson par semaine, dont une portion de poisson gras, moins de 5g de sel, le moins de matières grasses trans-insaturées possible, moins de 2 verres d'alcool pour les hommes (et 1 pour les femmes), le moins de boissons sucrées possible (68). Le régime DASH (Dietary Approaches to Stop Hypertension) préconise une consommation de fruits, légumes et céréales complètes, produits laitiers pauvres en matières grasses, poisson, volaille et viande maigre.

Le régime DASH a prouvé son efficacité sur la prévention cardio-vasculaire, en diminuant le taux de LDL cholestérol et la pression artérielle (9). La consommation importante de fruits, légumes, céréales complètes, produits laitiers à faible teneur en matière grasse, volaille, poissons, noix, avec une consommation limitée de produits sucrés et viande rouge sont recommandés en prévention cardio-vasculaire (9).

Les interventions efficaces trouvées dans ce travail préconisent une diminution de la consommation de sel, de produits transformés, de matières grasses, de viande, de produits

sucrés et une augmentation de la consommation de fruits, légumes, fibres et graines, les résultats sont donc concordants avec la littérature internationale.

La pratique de 150 minutes d'activité physique modérée par semaine ou du 75 min d'activité physique intense aérobie est recommandée dans la prévention des MCV, d'après le guide européen de prévention en pratique clinique des MCV, version 2016, établi par le sixième groupe de travail de la Société Européenne de Cardiologie (68). Cette recommandation est concordante avec la moyenne des durées recommandées dans les études incluses dans les résultats de ce travail (entre 120 et 180 minutes d'activité physique modérée par semaine dans la majorité des inclusions).

La prescription médicale d'une activité physique adaptée est possible en France pour les patients atteints d'une affection de longue durée, suite à la loi n° 2016-41 du 26 janvier 2016 de modernisation de notre système de santé. Comme le précise le référentiel de la Haute Autorité de Santé, sa mise en place commence par le recrutement de patients atteints de pathologies chroniques pour lesquelles l'activité physique a montré un effet bénéfique. Ensuite une évaluation médicale minimale a lieu, suivie d'une consultation médicale visant à évaluer la non contre-indication à la pratique sportive. Enfin la prescription d'activité physique est rédigée (69)(70).

Le sevrage tabagique est la stratégie de prévention cardio-vasculaire la plus efficace en terme de coût d'après le guide européen de prévention en pratique clinique des MCV, version 2016, établi par le sixième groupe de travail de la Société Européenne de Cardiologie, qui recommande la répétition d'interventions pour diminuer le tabagisme au sein de la population (68). Les interventions individuelles et de groupes sont efficaces dans l'aide au sevrage tabagique (68). Les interventions efficaces trouvées dans ce travail n'étudiaient que des interventions de groupe pour diminuer le tabagisme.

En France 76% des utilisateurs de téléphones portables avaient un smartphone en 2018 (71). L'utilisation des smartphones semble être une piste intéressante dans la prévention cardio-vasculaire car elle permettrait de toucher un large éventail de la population. L'utilisation des smartphones a déjà prouvé son efficacité dans la prévention secondaire cardio-vasculaire, notamment dans l'observance de la réhabilitation cardio-vasculaire à domicile pour les patients ne pouvant pas la réaliser en centre dédié (72)(73)(74). Elle permet également un

meilleur recours au système de soin chez les patients atteints d'insuffisance cardiaque (75) ainsi qu'une amélioration de leur qualité de vie grâce à une meilleure gestion clinique (76), et un monitoring efficace de certains facteurs de risque cardio-vasculaire (poids, pression artérielle) (77). Plus récemment l'étude de l'utilisation des smartphones s'est avérée efficace dans le suivi par automesure de certains facteurs de risque cardio-vasculaire en prévention primaire dans une cohorte de la Framingham Heart Study (pression artérielle et fréquence cardiaque à l'aide d'une smartwatch) (78).

L'éducation à la santé via une application mobile sur smartphone a également prouvé son efficacité pour améliorer les connaissances liées aux coronaropathies et à la poursuite d'un mode de vie sain (79).

On peut donc regretter l'absence d'actualisation des références fondant les RBP, qui par la relative ancienneté des références ne permet pas d'intégrer les données actuelles de la science ainsi que les nouveaux moyens à notre disposition comme les smartphones dans la lutte contre les MCV.

Perspectives pour la recherche, l'enseignement et les soins :

Ce travail s'inscrit dans le projet SPICES, qui se poursuivra jusqu'en 2021, l'utilisation des résultats de ce travail permettra de mettre en place les interventions efficaces en contexte de soin primaire pour prévenir les MCV.

En matière d'enseignement ce travail met en lumière l'intérêt d'apprendre aux étudiants en Médecine à analyser les Recommandations de Bonne Pratique et à accéder aux sources sur lesquelles elles sont construites, afin d'en évaluer l'ancienneté et donc leur intégration des données les plus récentes issues de la science. Il serait également profitable d'insister sur la prévention primaire au cours de nos études, peut-être en créant une matière spécifique, car nous apprenons actuellement quels sont les objectifs de prévention à atteindre mais sans enseignement dédié aux moyens à mettre en œuvre pour atteindre ces objectifs.

Concernant le système de soins français, la Fédération Française de Cardiologie indique dans son Livre Blanc, états généraux vers un plan cœur, qu'en France « la lutte contre les maladies cardiovasculaires souffre moins du manque de moyens que d'un manque de coordination des nombreux plans de prévention, de recherche et de suivi des personnes à risque ou malades.

Elle se heurte aussi à une grande inégalité d'accès à l'information, à la prévention et à la prise en charge, notamment en ce qui concerne les femmes, les milieux populaires et certains territoires». Ce travail a permis d'isoler des interventions efficaces qui permettront en poursuivant le projet SPICES d'établir une prévention primaire au sein de la communauté. Cela contribuera à diminuer l'inégalité d'accès à la prévention décrite par la Fédération Française de Cardiologie. Concernant l'applicabilité au soin, la définition d'une intervention globale précise reste toutefois à effectuer, sa mise en place devra être testée sur le terrain et une comparaison sera à effectuer entre les différents pays.

Enfin, l'intégration des interventions sur le lieu de travail semble être un élément intéressant, tout comme les interventions collectives, car elle permet de toucher un maximum de sujets, y compris des sujets n'ayant pas recours au système de soins.

CONCLUSION :

Le projet international SPICES cherche à utiliser des stratégies efficaces dans la prévention primaire des MCV, dans 5 pays aux profils socio-économiques différents.

Les références de la partie 3, issues des RBP, ont été analysées.

Les principales forces de ce travail résident dans la méthode de sélection des interventions efficaces dans la prévention des MCV et réalisables en soins primaires, et dans le classement par pôles des interventions efficaces tout en conservant leur description précise. D'autre part la validité des résultats de certaines études était renforcée par l'analyse d'une intervention commune efficace.

Le nombre d'articles non accessibles alors qu'issus des RBP ainsi que l'ancienneté de nombreuses références en constituent les principales limites.

La suite du projet SPICES sera l'implémentation des stratégies trouvées en contexte de soins primaires pour prévenir les MCV.

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77. Scherr D, Zweiker R, Kollmann A, et al. Mobile phone-based surveillance of cardiac patients at home. *J Telemed Telecare*. 2006;12(5):255-61.

78. McManus DD, Trinquart L, Benjamin EJ, et al. Design and Preliminary Findings From a

New Electronic Cohort Embedded in the Framingham Heart Study. *J Med Internet Res*. 2019 Mar 1;21(3):e12143.

79. Jiang Y, Jiao N, Nguyen H, et al. Effect of a mHealth program on coronary heart disease prevention among working population in Singapore: a single group pretest-posttest design. *J Adv Nurs*. 2019 Feb 20.

ANNEXE 1 :

Matrice (partie 3) : voir pages suivantes

En gris les références non accessibles. Fichier de la matrice disponible sur simple demande à l'auteur.

Nom de la Référence	POPULATION	CONTEXT	Exclusion on INTERVENTION TYPE	EXCLUSION ON CONTROL GROUP ABSENCE	STUDY TYPE SR/MA/RCT/BAC/Autre	Outcome	INCLUSION/ EXCLUSION	Description of Strategy	Date of publication	CLASSIFYING THEME	Way of implementation	Brief Advice or Behavioral Strategies
Stefanick ML, Mackey S, Sheehan M, Ellsworth N, Haskell WL, Wood PD. Effects of diet and exercise in men and postmenopausal women with low levels of HDL cholesterol and high levels of LDL cholesterol. <i>N Engl J Med.</i> 1998;339:12	post menopausal women + men with low HDL and moderately elevated LDL	community	intervention ok	control group ok	RCT	plasma lipoproteins	Inclusion	INTERVENTION : 1) Dietary recommendations, based on the goals of the NCEP Step 2 diet (less than 30 percent total fat, less than 7 percent saturated fat, and less than 200 mg of cholesterol per day), were presented to the subjects by registered dietitians . Participants entered a 12-week adoption phase in which an individualized counseling session was followed by eight one-hour, mixed-sex group lessons on replacing dietary sources of saturated fat with complex carbohydrates, low-fat dairy foods, and other alternatives, including lean meats. Weight loss was not emphasized in the group sessions, which were held separately for the diet alone and diet-plus-exercise groups and which averaged 15 persons per group. A six-to-eight-month maintenance phase consisted of monthly contacts with study dietitians, by mail or telephone or in group or private meetings. 2) The aerobic-exercise program began with a private meeting with members of the exercise staff, followed by a six-week adoption phase in which participants attended supervised, one-hour, mixed-sex exercise sessions, three times per week , that were held separately for the exercise alone and diet-plus-exercise groups. The subjects were instructed not to discuss diet during these sessions. Throughout a seven-to-eight-month maintenance phase, participants could attend supervised group sessions three times per week, supplement the required monthly group sessions with home-based activities , or both, with the goal of engaging in aerobic activity equivalent to at least 16 km (10 mi) of brisk walking or jogging each week . ASSESSMENT : At baseline and at one year, the subjects completed five unannounced 24-hour dietary recall questionnaires , in the form of computer-assisted telephone interviews, with use of two-dimensional food posters.	July 2, 1998	Diet : - the NCEP Step 2 diet (less than 30 percent total fat, less than 7 percent saturated fat, and less than 200 mg of cholesterol per day), presented by registered dietitians. - individualized counseling session - then a one-hour, mixed-sex group lessons on replacing dietary sources of saturated fat for instance - then monthly contacts with study dietitians , by mail or telephone or in group or private meetings. Physical activity : - aerobic-exercise program - 1 private meeting with members of the exercise staff - then supervised, one-hour, mixed-sex exercise sessions, 3 times per week - possibility to accomplish home-based activities on top of the exercise program Intensity : in aerobic activity equivalent to at least 16 km (10 mi) of brisk walking or jogging each week.	Individualized counseling + group lessons + monthly contacts with dietitians + supervised one-hour exercise sessions, 3 times per week	BS
Stein KM, Michalek DJ, Wang L, et al. Effects of different exercise training intensities on lipoprotein cholesterol fractions in healthy middle-aged men. <i>Am Heart J</i> 1990;119:777-783	49 healthy men (aged 44-48 years)	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	maximal ergometer exercise ECG examinations with measurement of maximal minute oxygen consumption and serum total cholesterol, HDL cholesterol, and triglyceride levels, low-density lipoprotein (LDL) and very low-density lipoprotein (VLDL) cholesterol levels were calculated.	EXCLUSION	N/A	February 1990	N/A		
Stenel DJ, Hardman AG, Brooke W, et al. Brisk walking and serum lipoprotein variables in formerly sedentary men aged 42-59 years. <i>Clin Sci.</i> 1993;85:701-708	Seventy-two apparently healthy but physically inactive men (aged 42-59 years)	community	intervention NON EFFICIENT	control group ok	RCT	serum lipoprotein variables	EXCLUSION	N/A	Dec 01, 1993	N/A		
Stewart KJ, Bachar A, Turner KL, et al. Effect of exercise on blood pressure in older persons: a randomized controlled trial. <i>Arch Intern Med</i> 2005;165:756-762	Participants were aged 55 to 75 years and had untreated mild or moderate hypertension	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	blood pressure, aortofemoral pulse-wave velocity, body composition, aerobic and strength fitness, abdominal obesity	EXCLUSION	N/A	April 11, 2005	N/A		
Sugaura H, Sugaura H, Kajima K, Miribod SM, Iwata H, Matsuda T. Effects of long-term moderate-intensity aerobic exercise on the number of daily steps on serum lipids in women: Randomised controlled trial. <i>BMC Womens Health.</i> 2002;2:3	menopausal women	community	intervention ok	control group ok	RCT	serum lipids	Inclusion	1) Duration : A 90-minute physical education class Frequency : once a week. Program : Warming up : 5min, Stretching, calisthenics 20min, Walking or jogging : 15min, Rest (recreation game), Strength training : 15min, rhythm dance : 15min, cooling down : 15min. Intensity : Walking, jogging or rhythm dance was conducted at 40-60% of VO2max for each subject, as calculated by Karvonen's formula. Participation in the physical education class was not forced. On the average, each subject participated in about 80% of the exercises throughout the study over 24-month period. 2) In the beginning, all subjects were each given a pedometer and asked to record the number of their daily steps for a week (and then brought their records of their calculated average daily steps), under the conditions of not having any other kind of exercise and continuing their ordinary lifestyles. Participants of the exercise group were asked to increase the number of their steps per day at least 2,000 to 3,000 more than their calculated average daily steps.	Jan 21, 2002	Physical activity : - Duration : A 90-minute physical education class - Frequency : once a week. - Program : Warming up : 5min, Stretching, calisthenics 20min, Walking or jogging : 15min, Rest (recreation game), Strength training : 15min, Rhythm dance : 15min, cooling down : 15min. - Intensity : 40-60% of VO2max - Participation in the physical education class was not forced. - Pedometer given : to record the number of daily steps per week - Increase in the number of steps per day by at least 2,000 to 3,000	BS + Follow up	PA
Sunami Y, Motoyama M, Kinoshita F, et al. Effects of low intensity aerobic training on the high-density lipoprotein cholesterol concentration in healthy elderly subjects. <i>Metabolism</i> 1999;48:984-988	healthy elderly subjects	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	HDL cholesterol	EXCLUSION	N/A	August, 1999	N/A		
Suter E, Marti B, Gutzwiller F. Jogging or walking: comparison of health effects. <i>Ann Epidemiol.</i> 1994;4:375-381	Seventy-five nonsmoking, sedentary men	community	intervention NON EFFICIENT	control group ok	N/A	Exercise adherence and injuries related to exercise training, changes in endurance capacity, body fat, and serum lipids	EXCLUSION	N/A	September, 1994	N/A		
Suter E, Marti B, Tschopp A, Wanner HU, Wenk C, Gutzwiller F. Effects of self-monitored jogging on physical fitness, blood pressure and serum lipids: a controlled study in sedentary middle-aged men. <i>Int J Sports Med.</i> 1990; 11: 425-432	middle-aged nonsmoking males	community	intervention ok	control group ok	RCT	estimated endurance capacity, arterial blood pressure, serum lipids	Inclusion	INTERVENTION : a 4-month period Type and duration : at least 120 min jogging, or walking/jogging, per week. regular supervised training sessions were also offered , but most exercisers chose to jog on their own responsibility (unsupervised setting but controlling training heart rate with a light portable device Polar Electro) Frequency : 2 to 6 sessions per week Intensity : 85% of the heart rate at the anaerobic threshold (as estimated from a maximal exercise test on a 400-m outdoor track). Evaluation : running diaries (duration, distance of runs) maintained by the exercisers and collected at monthly intervals. The entries were reviewed, and all subjects were telephoned every 4 weeks by the same investigator to reinforce the randomizations assignment and to provide information and support to subjects in carrying out their training. Most subjects repeated the maximal running test after 2 months of training to monitor progress in endurance capacity and to adapt the prescribed training heart rate.	December, 1990	Physical activity : a 4-month period Type and duration : at least 120 min jogging, or walking/jogging, per week Frequency : 2 to 6 sessions per week Intensity : 85% of the heart rate at the anaerobic threshold (re-calculated at two month after repeating the maximum running test) Evaluation : running diaries (duration, distance of runs) and all subjects were telephoned every 4 weeks by the same investigator.	BA + Follow up	PA
Suter E, Marti B. Little effect of long-term, self-monitored exercise on serum lipids in middle-aged women. <i>J Sports Med Phys Fitness.</i> 1992;32:400.	middle-aged, nonsmoking females	community	intervention NON EFFICIENT	control group ok	N/A	physical fitness and serum lipid levels	EXCLUSION	N/A	Dec 01, 1992	N/A		
Takahashi M, Nagata M, Mizumoto M, Yamashita T, Matsuzaki T, et al. Effects of concurrent aerobic and resistance circuit exercise training on fitness in older adults. <i>Eur J Appl Physiol</i> 2004;93:173-182	35 of older men and women (60-83 years of age) considered sedentary but apparently healthy	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	VO2max, Muscular strength, Body fat, serum lipids	EXCLUSION	N/A	N/A	N/A		
Tanaka H, Bassett R, Howley ET, Thompson DL, Adraf M, Rawson FL. Swimming training lowers the resting blood pressure in individuals with hypertension. <i>J Hypertens.</i> 1997; 15:651-657	Eighteen previously sedentary men and women (aged 48 +/- 2 years) with stage 1 or 2 essential hypertension	laboratory NOT COMMUNITY	intervention ok	control group ok	not randomized controlled trial	resting blood pressure	EXCLUSION	N/A	N/A	N/A		
Thomas TR, Adairian SB, Pava A, et al. Effects of interval and continuous running on HDL cholesterol, apoproteins A-1 and B, and LCAT. <i>Can J Appl Sport Sci</i> 1985;10:52-59	Thirty-six college male students	community	intervention NON EFFICIENT	control group ok	RCT	HDL cholesterol, apoproteins A-1 and B, and LCAT (lecithin: cholesterol acyltransferase)	EXCLUSION	N/A	Mar 01, 1985	N/A		
Thomas TR, Adairian SB, Etheridge GL. Effects of different running programs on VO2max, percent fat, and plasma lipids. <i>Can J Appl Sport Sci.</i> 1984;9:55	Fifty-nine untrained men and women, ages 18-32 years	laboratory NOT COMMUNITY	intervention NON EFFICIENT	control group ok	N/A	VO2 max, percent fat, and plasma lipids	EXCLUSION	N/A	June, 1984	N/A		
Thompson PD, Crouse SF, Goodpaster B, Kelley D, Moynia N, Pescatore L. The acute versus the chronic response to exercise. <i>Med Sci Sports Exerc.</i> 2001; 33 (suppl 6): S48-S445	none	none	none	none	N/A	serum lipids, blood pressure, glucose homeostasis	EXCLUSION	N/A	N/A	N/A		
Tsai JC, Chang WY, Kao CC, Lu ML, Chen YI, Chan P. Beneficial effect on blood pressure and lipid profile by programmed exercise training in Taiwanese patients with mild hypertension. <i>Clin Exp Hypertens.</i> 2002; 24: 219-224	Twenty-three mild hypertensive Taiwanese patients	Laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	serum lipids, blood pressure	EXCLUSION	N/A	March, 06, 2001	N/A		
Tsai JC, Liu JC, Kao CC, Tomlinson B, Kao PF, Chen JW, Chan P. Beneficial effects on blood pressure and lipid profile of programmed exercise training in subjects with white coat hypertension. <i>Am J Hypertens.</i> 2000; 13: 912-916	42 patients (23 men and 19 women) with white coat hypertension	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	blood pressure, serum lipids	EXCLUSION	N/A	June, 2002	N/A		
Tsujiuchi T, Kumano H, Yoshizuchi K, Tsujiuchi Y, Kubaki T, Suenatsu H, Hirao K. The effect of Qi gong relaxation exercise on the control of type 2 diabetes mellitus: a randomized controlled trial. <i>Diabetes Care.</i> 2002;25:241-2	26 type 2 diabetic subjects	community	intervention ok	control group ok	RCT	HbA1c, C-peptide, BMI, lipid metabolism	Inclusion	4-month intervention Qi-gong group sessions held by a Chinese Qi-gong doctor Frequency : Weekly Duration : 2h Subjects were also requested to practice Qi-gong at home.	January, 2002	Physical activity : Qi-gong group sessions (relaxation exercises) twice a week, for 2 hours - Held by a Chinese Qi-gong doctor - Subjects requested to practice Qi-gong at home	PA	BS

Urata H, Tanabe Y, Kiyonaga A, Ikeda M, Tanaka H, Shindo M, Arakawa K. Antihypertensive and volume-diplating effects of mild exercise on essential hypertension. Hypertension. 1987; 9: 245-252	20 essential hypertensive subjects	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	blood pressure, ratio of serum sodium to potassium, plasma norepinephrine concentrations, body weight, urinary sodium excretion	EXCLUSION	N/A	March 1, 1987			
Van Hoof R, Haeghe P, Fagard R, Lijnen P, Staessen J, Amery A. Effect of endurance training on blood pressure at rest, during exercise and during 24h, in sedentary men. Am J Cardiol. 1989; 63: 945-949	26 healthy, sedentary men	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	blood pressure, body weight, peak oxygen uptake, peak heart rate	EXCLUSION	N/A	April 15, 1989	N/A		
Vasan RS, Larsen MG, Leip EP, et al. Impact of high-normal blood pressure on the risk of cardiovascular disease. N Engl J Med. 2001;345:1291-1297	6859 participants in the Framingham Heart Study initially free of hypertension and	community	observational study - NO INTERVENTION	N/A	Cohort Study	blood pressure, incidence of cardiovascular diseases	EXCLUSION	N/A	November 1, 2001	N/A		
Vazankari T, Fogelholm M, Kukkonen-Harjula K, et al. Reduced oxidized low-density lipoprotein after weight reduction in obese premenopausal women. Int J Obes. 2005;29:205-211	77 obese premenopausal women	community	intervention ok	control group ok	RCT	plasma lipids, glucose, insulin, oxidized low-density lipoprotein, weight	Inclusion	<p>Intervention:</p> <ul style="list-style-type: none"> 1) 12-week weight reduction phase: 3 phases (according to the American Dietetic Association) 2) The exercise phase: 8 months in one of the following groups: <ul style="list-style-type: none"> - high exercise: 4.6 h walking a week - low exercise: 2.3 h walking/week 3) The 12-week weight reduction phase: <ul style="list-style-type: none"> - week 1: LED (low-energy diet) based on a small exchange system; weeks 2-9: VLED (very low-energy diet, prescribed to cover 40% of measured resting energy expenditure), and weeks 10-12: LED. - The estimated daily energy and fat intakes were calculated from 4-day food records, collected six times during 12 months. - Weekly meetings in small groups facilitated by a nutritionist. The meeting topics included instructions on how to follow LED and VLED, general knowledge on diet and weight maintenance, and group-proportion techniques. All subjects were weighed before each session. 4) The exercise phase: <ul style="list-style-type: none"> - unsupervised exercise sessions, once a week. - The subjects returned their previous week's training diary at each session - recording of the number of daily steps for 7 days using a pedometer twice during the intervention - Assessment: <ul style="list-style-type: none"> - Venous blood samples between 8:00 and 9:00am after 12h of fasting before the weight reduction (0 months), and before (3 months) and after (12 months) the weight maintenance programme in the active groups (for the cholesterol levels). - Weight: before every session of the weight-reduction phase and at the same moments as the blood samples during the weight maintenance programme. 	January 29, 2001	<p>Diet: a 12-week weight-reduction phase: 3 phases (according to the American Dietetic Association)</p> <ul style="list-style-type: none"> - week 1: LED (low energy diet) - weeks 2-9: VLED (very low-energy diet, to cover 40% of measured resting energy expenditure) - weeks 10-12: LED. <p>Weekly meetings in small groups facilitated by a nutritionist.</p> <p>Physical activity: supervised exercise sessions, once a week.</p> <p>Assessment: <ul style="list-style-type: none"> - Cholesterol levels (blood samples) - Weight: before every session of the weight-reduction phase and at the same moments as the blood samples during the weight maintenance programme. </p>	Diet + PA	BS + Follow up
Vorisimo MT, Arago A, Sousa A, et al. Effect of physical exercise on lipid metabolism in the elderly. Rev Port Cardiol. 2002;21:1099-1112	Sixty-three old people of both sexes, aged between 65 and 84 (including seven patients in secondary prevention)	community	intervention ok	control group ok	RCT	total cholesterol, triglycerides, HDL-C, HDL2-C, HDL3-C, apo A1, apo B-100 and apo (a)	Inclusion	<p>Intervention: physical exercise sessions (for 8 months): 5 minutes of general warming up gymnastics, 15 minutes on an ergometric bicycle, 15 minutes on an electric treadmill, 10 minutes on an ergometric rowing machine, 10 minutes on an ergometric crank and 5 minutes of general cooling-down gymnastics.</p> <p>Location: in a suitable equipped hall</p> <p>Participants: 3-physical education instructor with medical backup</p> <p>Frequency: 3 times a week</p> <p>Duration: around 60 minutes</p> <p>Intensity: 60 to 80 % of heart rate reserve, the program beginning with short sessions of low intensity and increasing progressively until the end of the first month, after which they remained at the same level until the end of the study.</p>	October 01, 2002	<p>Physical activity:</p> <ul style="list-style-type: none"> - physical exercise sessions: 5 minutes of general warming up gymnastics, 15 minutes on an ergometric bicycle, 15 minutes on an electric treadmill, 10 minutes on an ergometric rowing machine, 10 minutes on an ergometric crank and 5 minutes of general cooling-down gymnastics. - For around 60 minutes, 3 times a week in a suitable equipped hall - led by a physical education instructor with medical backup - at 60 to 80 % of heart rate reserve, the program beginning with short sessions of low intensity and increasing progressively until the end of the first month 	PA	BS
Verrry LS, Imai AH. Effects of exercise on cardiovascular disease risk in women with NIDDM. Diabetes Res Clin Pract. 1988;6:27	women (mean age = 59.2 ± 8.9 years) of isoprenopausal years with NIDDM	laboratory NOT COMMUNITY	intervention NON EFFICIENT	control group ok	RCT	Total cholesterol, HDL-C, body mass, VO2max	EXCLUSION	N/A	June 29, 1988	N/A		
Vetro VL. Masters Thesis. Springfield, MA. Springfield College, 1990. The effects of aerobic dance exercise and nutrition intervention on cholesterol levels	Need to access full article to answer (thesis)											
Whelton PK, Ho J. Blood pressure reduction. In: Hennekens CH, Buring JE, Manson JE, Ridker PM, eds. Clinical Trials in Cardiovascular Disease. Philadelphia: WB Saunders, 1999	N/A	N/A	NO INTERVENTION (book, not study)	N/A	N/A	N/A	EXCLUSION	N/A	N/A	N/A		
Wijnen JA, Kool MJ, van Baak MA, Kuipers H, de Haan CH, Verstappen FT, et al. Effect of exercise training on ambulatory blood pressure. Int J Sports Med. 1994;15:10-5. [PMID: 8763339]	19 sedentary male subjects, aged 22 to 44 years, with normal or slightly elevated blood pressure	laboratory NOT COMMUNITY	intervention NON EFFICIENT	control group ok	RCT	blood pressure	EXCLUSION	N/A	January, 1994	N/A		
Williams PT High-density lipoprotein cholesterol and other risk factors for coronary heart disease in female runners. N Engl J Med 1996;334:1298-1303	1837 female recreational runners	community	observational study - NO INTERVENTION	none	cross-sectional survey	number of kilometers run per week, plasma HDL cholesterol, blood pressure, BMI	EXCLUSION	N/A	N/A	N/A		
Williams PTKausus RMS Stefanick MLVranizan KMWood PD Effects of low-fat diet, calorie restriction, and running on lipoprotein subfraction concentrations in moderately overweight men. Metabolism 1994;43:555-563	moderately overweight men	community	intervention ok	control group ok	RCT	lipoprotein subfraction concentrations: not possible in usual practice, VO2max, hydrostatic weighing	EXCLUSION	N/A	N/A	N/A		
WingRR, VendittiE, JakicicJM, PolleyBA, LangW. Lifestyle intervention in overweight individuals with a family history of diabetes. Diabetes Care. 1998; 21:350-9. [PMID: 9540015]	154 overweight individuals with a parental history of diabetes	community	intervention NON EFFICIENT at 2 years	control group ok	RCT	weight loss, risk of developing diabetes	EXCLUSION	N/A	March, 1998	N/A		
Wood PDHaskell WLBBar SN et al. Increased exercise level and plasma lipoprotein concentrations: a one-year, randomized, controlled study in sedentary, middle-aged men. Metabolism 1983;32:31-39	Eighty-one sedentary but healthy men aged 30-55	community	intervention NON EFFICIENT	control group ok	RCT	plasma lipoprotein concentrations	EXCLUSION	N/A	N/A	N/A		
Wood PD, Stefanick ML, Dreon DM, Frey Hewitt B, Garay SG, Williams PT, Saperko HR, Fortmann SP, Albert JJ, Vranizan EM, Ellisworth NM, Terry RB, Haskell WL. Changes in plasma lipids and lipoproteins in overweight men during weight loss through dieting as compared with exercise. N Engl J Med. 1986;310:1173-1179	overweight sedentary men	clinic NOT COMMUNITY	intervention ok	control group ok	RCT	plasma lipids and lipoproteins	EXCLUSION	N/A	November 3, 1988	N/A		
Wood RH, Reyes R, Welsh MA, Favolora-Sabatier J, Sabatier M, Lee MC, Johnson LG, Hooper PF. Concurrent cardiovascular and resistance training in healthy older adults. Med Sci Sports Exerc. 2001; 33: 1751-1758	Thirty-six participants (ages 60-84)	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	resting heart rate and rate-pressure product; lower exercise diastolic blood pressure and rating of perceived exertion; increased GXT duration; increased leg, back, and shoulder 5RM scores; and improved AAHPERD flexibility, coordination, and cardiovascular endurance scores.	EXCLUSION	N/A	October, 2001	N/A		
Woolf May K, Kearney EM, Jones DW, et al. The effect of two different 18-week walking programmes on aerobic fitness, selected blood lipids and factor VIIa. J Sports Sci. 1998;16:701-710	Forty-nine previously sedentary or low active individuals aged 40-71 years	community	intervention ok	control group ok	RCT	aerobic fitness, selected blood lipids and factor VIIa	Inclusion	<p>1) 18-week walking program</p> <ul style="list-style-type: none"> 1) long walking group: to walk for at least 20 min but no more than 40 min in each session 2) repetitive short walking group: to walk for at least 10 but no more than 15 min in each session, and not to complete more than three sessions per day, with at least 120 min between sessions. <p>Subjects completed their walking sessions in a way which fitted into their lifestyle and were also offered the option of supervised walking sessions on a weekly basis.</p> <p>Duration: starting at 60min per week on week 1, increasing up to 200min per week on week 12</p> <p>Intensity: approximately 70-75% VO2max, goal: to produce an energy expenditure of about 4.2 MJ per week over the last 6 weeks of the program</p> <p>Assessment:</p> <ul style="list-style-type: none"> - To monitor and assist with the determination of exercise intensity while walking, 20 subjects were allocated heart rate monitors (Polar Force, Polar Electro, Kempele, Finland); they and the remaining subjects were also instructed to take their heart rate manually from their pulse palpated at the wrist. - Two training diaries: to record the duration and intensity of all sessions. 	1998	<p>Physical activity:</p> <ul style="list-style-type: none"> - long walking group: 20-40 min sessions - repetitive short walking group: 10-15 min sessions (max 3 sessions per day, 2h between every session) - in a way which fitted into their lifestyle or possibility of supervised walking sessions on a weekly basis. <p>Duration: 60min per week on week 1, up to 200min per week on week 12.</p> <p>Intensity: 70-75% VO2max, goal: energy expenditure of about 4.2 MJ per week over the last 6 weeks of the program</p> <p>Assessment: heart rate monitors and/or manual taking of the heart rate at the wrist + 2 training diaries: to record the duration and intensity of all sessions.</p>	PA	BA + Follow up

Wood/Adair K, Kearney BM, Owen A, et al. The efficacy of accumulated short bouts versus single bouts of brisk walking in improving aerobic fitness and blood lipid profiles. Health Educ Res. 1999;14:803-815	55 subjects (39 men and 16 women) aged between 40 and 66, sedentary but otherwise healthy	community	intervention ok	control group ok	RCT	blood lactate during a graded treadmill walking test, final heart rate, LDL-C, apolipoprotein A	Inclusion	+18 week walking program. Optional, 1/week supervised walking. Newsletter reminder (2) and phone calls. 1) LW long walking group: to walk for at least 20 min but no more than 40 min in each session 2) W intermediate walking repetitive short walking group: to walk for at least 10 but no more than 15 min in each session, <= sessions per day, with <120 min between sessions. 3) SW short walking: <= duration <10 minutes, <=4/day, with <120 min between sessions. Subjects completed their walking sessions in a way which fitted into their lifestyle and were also offered the option of supervised walking sessions on a weekly basis. Duration: starting at 60min per week on week 1, increasing up to 200min per week on week 12. Intensity: approximately 70-75% V02max, goal: to produce an energy expenditure of about 4.2 MJ per week over the last 6 weeks of the program Assessment: To monitor and assist with the determination of exercise intensity while walking, 20 subjects were allocated heart rate monitors (Polar Electro, Kempele, Finland); they and the remaining subjects were also instructed to take their heart rate manually from their pulse palpated at the wrist. Two training diaries: to record the duration and intensity of all sessions.	1999	long or intermediate walking groups	PA	BS, newsletters and phone calls reminders
Water RA, Ullrich IH, Maxwell LP, Goetsch VL. Coronary risk factors in type II diabetes: response to low intensity aerobic exercise. W V Med J. 1990;86:287-90	Nine women and seven men, mean age 56, with non-insulin-dependent diabetes	laboratory NOT COMMUNITY	intervention ok	control group ok	RCT	V02max, Resting systolic blood pressure, resting heart rate, Glycosylated hemoglobin (HbA1c), Body weight, total and HDL cholesterol, glucose, and insulin levels	EXCLUSION	N/A	N/A	N/A		
Zimmer B. Masters Thesis. La Crosse, WI: University of Wisconsin-La Crosse; 1996. The effects of a 12 week training program utilizing various modes of home exercise equipment on cholesterol and triglyceride levels.	Need to access full article to answer (thesis)											
Zmuda JM, Yurgalevitch SM, Flynn MM, et al. Exercise training has little effect on HDL levels and metabolism in men with initially low HDL cholesterol. Atherosclerosis 1998;137:215-221	17 men aged 26-49 years with initially low or normal HDL-C levels	laboratory NOT COMMUNITY	intervention NON EFFICIENT	CONTROL GROUP ABSENCE	Control Trial	HDL-C levels, apolipoprotein B levels, postheparin lipoprotein lipase activity, clearance rate of intravenous triglycerides	EXCLUSION	N/A	N/A	N/A		
Espeland MA, Kumanyika S, Yunis C et al. Electrolyte intake and nonpharmacologic blood pressure control. Ann Epidemiol 2002;12:587-95	873 elderly with hypertension	community	Observational study - NO INTERVENTION	CONTROL GROUP ABSENCE	Cohort Study	sodium and potassium intakes, blood pressure	EXCLUSION	N/A	N/A	N/A		
Cook NR, Kumanyika SK, Cutler JA, Whitton PK. Dose-response of sodium excretion and blood pressure change among overweight, nonhypertensive adults in a 3-year dietary intervention study. J Hum Hypertens 2005;19:47-54.	healthy men and women ages 30-54 years	community	intervention ok	control group ok	RCT	sodium excretion, blood pressure	Inclusion	Location: at nine <u>urban centers</u> located in diverse regions of the United States, with a coordinating centre located in Boston Interventions: intervention on staff, <u>primarily dietitians</u> Meeting types: an initial in-person <u>individual meeting</u> , 10 <u>weekly group meetings</u> , four <u>monthly group meetings</u> and additional less frequent group sessions for the remainder of follow-up. Individual telephone and face-to-face contacts were offered as needed to facilitate maximum adherence. Intervention: 1) Sodium reduction: first on morning meals where food choices are relatively limited, and then progressing through the day to noontime meals, evening meals, and snacks. Finally, the options for eating out were considered, planning, <u>reading labels, shopping, and modifying recipes</u> -sodium knowledge: to identify sources of sodium in their food -building <u>behavioral skills</u> to control sodium intake in a variety of situations. -encouragement to explore a variety of foods and flavors -sampling of products and recipes exposed participants to the range of interesting seasonings that are possible with low sodium foods and made them aware of the many available options -emphasis on enjoyment of food -articles describing sodium as an effective intervention for reducing blood pressure of hypertensives were discussed during sessions , to emphasize the potential benefits of reducing sodium intake. -encouraging behavioral changes that could be applied to other aspects of their lives. Goal: group average sodium intake of 80 mmol/24 h or less 2) Weight intervention: - assertive behavior when eating out, -dealing with both environmental and emotional food cues, and building social support. Goal: loss of at least 10 lb (4.5 kg) The weight management sessions emphasized knowledge and behavioral skills, focusing on decreasing caloric intake, counting fat intake in grams, and increasing physical activity. Assessment: - <u>sodium excretion in 24-h urine samples</u> - Potassium and creatinine excretion were also measured -sample validity: volume >500 g (measured by weight) and collection time between 18 and 36 h Blind assessment:	February, 2005	Diet + health education: Location: clinical centres Interventions: intervention on staff, primarily dietitians Meeting types: - initial in-person <u>individual meeting</u> - 10 <u>weekly group meetings</u> - 4 monthly group meetings - additional less frequent group sessions for the remainder of follow-up. - <u>individual telephone and face-to-face contacts</u> offered as needed to facilitate maximum adherence. Intervention: - <u>information and behavioural counselling</u> to facilitate 1) sodium reduction and 2) weight loss.	Diet (including Sodium) + Health Education	BS + Follow up
Cappuccio FP, Kerry SM, Micah FB, Flange Rhule J, Eastwood JB. A community programme to reduce salt intake and blood pressure in Ghana [ISRCTN8739543]. BMC public health 2006;6:13	1,013 participants from 12 villages (528 women, 481 rural dwellers), mean age 55 years	community	intervention ok	control group ok	RCT	urinary sodium excretion and BP levels	Inclusion	Location: <u>villages</u> in communal areas like churches, churchyards, schools, community centres Participants: <u>community health workers</u> Intervention: - <u>health education program</u> - prevention of malaria, infective diarrhoea and roundworm infection, diabetes, high blood pressure. In the intervention villages: additional advice was given <u>not to add salt to food</u> and no cooking, to limit the amount of koose, momoni, koko and tilapia (salted fish), salted pigs' feet and salted beef <u>and to soak the items in water overnight before eating them</u> . Tools: A standard health education package from the Ghana Ministry of Health was used in all the villages. Flip charts were the main medium of communication; they consisted of double-sided A3-sized sheets with a color picture on one side (shown to the participants) and written text on the other (facing the health visitor and used as a prompt). Frequency: meetings were held <u>daily for the first week</u> of the study and <u>thence a week</u> . Duration: approximately <u>one hour</u> .	January 24, 2006	Diet + health education: Location: communal areas in <u>villages</u> Participants: <u>community health workers</u> Intervention: - <u>health education program</u> , prevention of malaria, infective diarrhoea and roundworm infection, diabetes, high blood pressure. In the intervention villages: additional advice was given <u>not to add salt to food</u> and to soak only items in water overnight before eating them. Tools: A standard health education package <u>double-sided A3-sized sheets</u> with a color picture on one side and written text on the other Frequency: daily for week 1, once a week after Duration: 1 hour	Diet	BS material GROUPS
Kumanyika SK, Cook NR, Cutler JA et al. Sodium reduction for hypertension prevention in overweight adults: further results from the Trials of Hypertension Prevention Phase II. J Hum Hypertens 2005;19:33-43	DHPH II / healthy men and women ages 30-54 years	community	intervention ok	control group ok	RCT	adherence to and effects of the sodium reduction intervention, sodium excretion, blood pressure	Inclusion	Location: at nine <u>urban centers</u> located in diverse regions of the United States, with a coordinating centre located in Boston Interventions: intervention on staff, <u>primarily dietitians</u> Meeting types: an initial in-person <u>individual meeting</u> , 10 <u>weekly group meetings</u> , four <u>monthly group meetings</u> and additional less frequent group sessions for the remainder of follow-up. Individual telephone and face-to-face contacts were offered as needed to facilitate maximum adherence. Intervention: 1) Sodium reduction: first on morning meals where food choices are relatively limited, and then progressing through the day to noontime meals, evening meals, and snacks. Finally, the options for eating out were considered, planning, <u>reading labels, shopping, and modifying recipes</u> -sodium knowledge: to identify sources of sodium in their food -building <u>behavioral skills</u> to control sodium intake in a variety of situations. -encouragement to explore a variety of foods and flavors -sampling of products and recipes exposed participants to the range of interesting seasonings that are possible with low sodium foods and made them aware of the many available options -emphasis on enjoyment of food -articles describing sodium as an effective intervention for reducing blood pressure of hypertensives were discussed during sessions , to emphasize the potential benefits of reducing sodium intake. -encouraging behavioral changes that could be applied to other aspects of their lives. Goal: group average sodium intake of 80 mmol/24 h or less 2) Weight intervention: - assertive behavior when eating out, -dealing with both environmental and emotional food cues, and building social support. Goal: loss of at least 10 lb (4.5 kg) The weight management sessions emphasized knowledge and behavioral skills, focusing on decreasing caloric intake, counting fat intake in grams, and increasing physical activity. Assessment: - <u>sodium excretion in 24-h urine samples</u> - Potassium and creatinine excretion were also measured -sample validity: volume >500 g (measured by weight) and collection time between 18 and 36 h Blind assessment:	January, 2005	Diet + health education: Location: clinical centres Interventions: intervention on staff, primarily dietitians Meeting types: - initial in-person <u>individual meeting</u> - 10 <u>weekly group meetings</u> - 4 monthly group meetings - additional less frequent group sessions for the remainder of follow-up. - <u>individual telephone and face-to-face contacts</u> offered as needed to facilitate maximum adherence. Intervention: - <u>information and behavioural counselling</u> to facilitate 1) sodium reduction and 2) weight loss.	Diet + Health Education	BS + Follow up

Hu J, Jiang X, Li N et al. Effects of salt substitute on pulse wave analysis among individuals at high cardiovascular risk in rural China: a randomized controlled trial. <i>Hypertens Res</i> 2009;32:282-8	600 high-risk individuals living in six rural areas in northern China	Laboratory NOT COMMUNITY	intervention NON APPLICABLE IN COMMON PRACTICE	control group ok	N/A	central aortic blood pressure: Not accessible in usual practice	EXCLUSION	N/A	N/A	N/A		
Charlton KE, Steyn K, Levitt NS et al. A food-based dietary strategy lowers blood pressure in a low socio-economic setting: a randomized study in South Africa. <i>Public health nutrition</i> 2008;11:1397-405	South African men and women aged 50-75 years, with drug treated mild-to-moderate hypertension	community	intervention NON APPLICABLE IN COMMON PRACTICE	control group ok	RCT	blood pressure	EXCLUSION	N/A	August 27, 2008	N/A		
The sixth report of the Joint National Committee on prevention, detection, evaluation, and treatment of high blood pressure. <i>Arch Intern Med</i> . 1997;157:2413-2446	N/A	N/A	none: national recommendations support	N/A	N/A	N/A	EXCLUSION	N/A	N/A	N/A		
Hyman DJ, Pavlik VN. Characteristics of patients with uncontrolled hypertension in the United States. <i>N Engl J Med</i> . 2001;345:479-486	16,095 adults at least 25 years old	community	observational study: NO INTERVENTION	N/A	Observations study	Blood pressure	EXCLUSION	N/A	N/A	N/A		
Berlowitz DR, Ash AS, Winkley EC, et al. Inadequate management of blood pressure in a hypertensive population. <i>N Engl J Med</i> . 1998;339:1957-1963	800 hypertensive men at five Department of Veterans Affairs sites in New England	community	observational study: NO INTERVENTION	N/A	Observations study	Blood pressure, intensity of treatment	EXCLUSION	N/A	N/A	N/A		
Chobanian AV, Bakris GL, Black HR. Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. <i>Hypertension</i> . 2003;42:1206-1252	N/A	N/A	none: national recommendations support	N/A	N/A	N/A	EXCLUSION	N/A	N/A	N/A		
Moore TJ, Conlin PR, Ard J, et al. The DASH diet is effective treatment for stage 1 isolated systolic hypertension. <i>Hypertension</i> . 2004;38:155-158	72 individuals with stage 1 ISH	community	intervention NON APPLICABLE IN COMMON PRACTICE	control group ok	RCT	blood pressure	EXCLUSION	N/A	August 1, 2001	N/A		
Whelton PK, Appel LJ, Espel and MA et al. Sodium reduction and weight loss in the treatment of hypertension in older persons: a randomized controlled trial of nonpharmacologic interventions in the elderly (TONE). <i>TONE Collaborative Research Group. JAMA: the journal of the American Medical Association</i> 1998;279:839-46	TONE study /975 (corrected) men and women aged 60 to 80 years with systolic blood pressure lower than 145 mm Hg and diastolic blood pressure lower than 85 mm Hg while receiving treatment with a single antihypertensive medication	community	intervention ok	control group ok	RCT	Diagnosis of high blood pressure at 1 or more follow up visits, or treatment with antihypertensive medication, or a cardiovascular event during follow-up	Inclusion	<p>Intervention : reduced Na alone, weight loss alone or combined reduced Na and weight loss.</p> <p>Intervention groups, consisting of 9 to 12 participants</p> <p>an intervention individual session with the interventionist advice to change their eating patterns (all active interventions) and increase their physical activity (weight loss interventions) to motivate participants to make and sustain long term life-style changes</p> <p>to assess progress at frequent intervals</p> <p>to help participants adapt the TONE life-style recommendations to their own individual situations (for instance discuss cost issues and offer practical advice on the purchase and preparation of inexpensive foods generally available in supermarkets).</p> <p>Each of the TONE interventions consists of three phases:</p> <ol style="list-style-type: none"> 1) intensive (4 months): 3 group and 1 individual sessions each month (weekly meetings) 2) extended (6 months): biweekly group sessions 3) maintenance: monthly group sessions <p>Participants: <u>dentist/pt or exercise coaches</u></p> <p>Tools: centrally and locally prepared materials (food counters, scorekeepers, manuals, audiovisual aids)</p> <p>Assessment : weight, blood pressure, 24-hour urines</p>	March, 1995	<p>Weight loss + diet :</p> <p>Intervention : reduced Na alone, weight loss alone or combined reduced Na and weight loss.</p> <p>Intervention groups, consisting of 9 to 12 participants</p> <p>an intervention individual session with the interventionist then <u>group sessions</u></p> <p>advice to change their eating patterns and increase their physical activity</p> <p>to help participants adapt the TONE life-style recommendations to their own individual situations</p> <p>Frequency : 1/week for 4 months, then 1/2 weeks for 3 months, and then 1/month.</p> <p>Participants: <u>dentist/pt or exercise coaches</u></p> <p>Tools : centrally and locally prepared materials (food counters, scorekeepers, manuals, audiovisual aids)</p> <p>Assessment : weight, blood pressure, 24-hour urines</p>	Diet (including sodium) + PA	BS + Follow up
Neaton JD, Wentworth D. Serum cholesterol, blood pressure, cigarette smoking, and death from coronary heart disease: overall findings and differences by age for 316099 white men. <i>Arch Intern Med</i> . 1992;152:56-64	316 099 men screened for the Multiple Risk Factor Intervention Trial (MRFIT)	community	observational study: NO INTERVENTION	N/A	Observations study	blood pressure, cholesterol levels, cigarette smoking, death from coronary heart disease	EXCLUSION	N/A	N/A	N/A		
Fortmann SP, Taylor CB, Flora JA, Winkley MA. Effect of community health education on plasma cholesterol levels and diet: the Stanford Five-City Project. <i>American Journal of Epidemiology</i> 1973;99:1293-1295	Standford Five-City Project / participants aged 35-74 years inhabitants of medium-sized cities in northern California.	community	intervention ok	control group ok	BAC	nutritional knowledge, plasma cholesterol, dietary saturated fat intake, dietary cholesterol intake	Inclusion	<p>Intervention : education program</p> <p>6-year multifactor risk reduction education program that was coordinated, comprehensive, and community wide</p> <p>The program promoted reducing plasma cholesterol levels through a change in diet, reducing blood pressure through regular blood pressure checks, reduced salt intake, increased exercise, increased adherence to antihypertensive medication regimens; reducing cigarette smoking; reducing obesity through increased exercise, and reduced dietary energy intake, and increasing both moderate and vigorous physical activity.</p> <p>general and specific goals for each year of the campaign (e.g., reducing meat intake, promoting the adoption of one new low-fat recipe per month, reaching 50 percent of smokers with a self-help quit kit).</p> <p>Tools: multiple communication channels and settings: including newspapers, television and radio, mass distributed print media, classes, contests, and correspondence courses</p> <p>Participants: trained health professionals.</p> <p>Assessment: contacted by mail, telephone, and in person, and they were invited to attend survey centers: demographic background, health knowledge, cardiovascular risk-related attitudes and behavior, including a 24-hour diet recall, medical history.</p> <p>Weight, blood pressure, cholesterol concentrations (prior fasting was not required).</p> <p>Cigarette smoking status was confirmed with biochemical testing.</p>	May 15, 1993	<p>Health education :</p> <p>6-year multifactor risk reduction education program that was coordinated, comprehensive, and community wide</p> <p>education about CHD risk factors</p> <p>general and specific goals for each year of the campaign</p> <p>Diet : change in diet, reduced salt intake, reduced weight, reducing obesity through increased exercise and reduced dietary energy intake</p> <p>Physical activity : increasing both moderate and vigorous physical activity.</p> <p>Smoking : reducing cigarette smoking</p> <p>Tools: multiple communication channels and settings: including newspapers, television and radio, mass distributed print media, classes, contests, and correspondence courses, self-help quit kit for smokers</p> <p>Participants: trained health professionals.</p> <p>Assessment : contacted by mail, telephone, and in person, and they were invited to attend survey centers: health knowledge, cardiovascular risk-related attitudes and behavior, including a 24-hour diet recall, Weight, blood pressure, cholesterol concentrations (prior fasting was not required), cigarette smoking status was confirmed with biochemical testing.</p>	screening + Diet + PA + smoking	BS = material + Follow up
Pietinen P, Tanskanen A, Nissinen A, Tuomilehto J, Puska P, Pietinen P, Tanskanen A, Nissinen A, Tuomilehto J, Puska P. Changes in dietary habits and knowledge concerning salt during a community-based prevention programme for hypertension. <i>Annals of Clinical Research</i> 16 Suppl 43:150156, 1984	inhabitants from north Karelia, aged 14 to 65 years	community	intervention NON EFFICIENT	CONTROL GROUP ABSENCE	BAC	salt intake level, Na excretion, Na/K ratio, knowledge concerning salt	EXCLUSION	N/A	N/A	N/A		
Isacson A, Lindholm LH, Schersten B, Eklund E, Björkman S, Jarhult B, Asp NG, Larke J. Community intervention against non-insulin dependent diabetes mellitus (NIDDM) and cardiovascular disease. A study based on Swedish health care. <i>Cardiovascular Risk Factors</i> 6:164-171, 1996	inhabitants of Östfotom, a municipality in southern Sweden, aged 30 to 64	community	intervention not assessable, no statistic available to compare with a control group	CONTROL GROUP ABSENCE	BAC and cross sectional study	blood glucose, plasma cholesterol, blood pressure, body mass index, and smoking habits	EXCLUSION	N/A	N/A	N/A		

<p>Lupton BS, Fornøbe V, Søgaard AJ: The Finmark Intervention Study: is it possible to change CVD risk factors by community-based intervention in an Arctic village in crisis? <i>Scandinavian Journal of Public Health</i> 31:178-186, 2003</p>	<p>members of a fishing community in the Norwegian Arctic</p>	<p>community</p>	<p>intervention ok</p>	<p>control group ok</p>	<p>BAC</p>	<p>blood pressure , physical activity, use of low fat milk</p>	<p>Inclusion</p>	<p>Intervention named "Health and Well Being" - aim = to influence the whole population to be more health conscious, to mobilize the inhabitants to participate in health promoting activities, and to change environmental factors influencing health. The theoretical framework was based on community empowerment. 1) The project invited voluntary organizations, including administrators of the municipality, to a workshop to identify barriers to good health. The project manager was a local teacher, who worked closely with the local medical officer. 2) Based on this, two groups were selected to construct the "project manual" with suggestions for health-promoting improvements 3) The manual was distributed to schools, one fish factory, voluntary organizations, and parts of the local public administration. 4) A second project manual with all the suggestions made A) Physical activity: sports club, Pensioners Association, Rheumatic Association -aerobics classes for ladies, physical training for individuals with heart disease, badminton groups for grown-ups, cycle trails, preparing ski tracks, volleyball and football tournaments the two following years, organized hikes were arranged 2-3 times a year, dances, swimming and special training in a heated swimming pool with a physiotherapist B) Nutrition: cholesterol measurement in grocery shops + healthy recipes and menus based on local food traditions (covered by the local newspaper and radio) evening cookery classes -the Fishermen Union's Welfare Station produced low fat, vacuum-packed dinners, which could easily be prepared in simple facilities on board. These meals were sold commercially to the fleet and became a success. C) Smoking habits: smoke free health center, schools, and kindergartens (smoking rooms) and long term aim of smoke-free public buildings by 2002. -Most of the activities listed above were suggested recorded in the project manual, and thus were initiated by the inhabitants of the village. -local newspaper, radio, and television were widely used throughout the intervention period and played an important role in the project. -creation of guidelines for individual counselling on quitting smoking, heart favorable diet, and physical exercise (to use in the local general practice) public health fair where relevant voluntary organizations presented their activities, an event visited by more than 600 persons -approximately 100 high-risk individuals identified at the baseline and intermediate screening were given individual counselling. Assessment: -physical examination by trained personnel (blood pressure, non-fasting blood lipids, weight, and height according to a set protocol) -3 questionnaires; the questions concerned sociodemographic factors, self-reported complaints, lifestyle, well-being, contact with the health service, use of medication, and social network.</p>	<p>May 1, 2003</p> <p>Intervention: -Workshop to construct the "project manual", with suggestions for health promoting improvements, with voluntary organizations, including administrators of the municipality. The manual was distributed to schools, one fish factory, voluntary organizations, and parts of the local public administration. -local media were widely used throughout the intervention period and played an important role in the project. -creation of guidelines for individual counselling on quitting smoking, heart favorable diet, and physical exercise (to use in the local general practice) A) Physical activity: Sports club, Pensioners Association, Rheumatic Association + dance -aerobics classes for ladies, physical training for individuals with heart disease, badminton groups for grown-ups, cycle trails, preparing ski tracks, volleyball and football tournaments the two following years, organized hikes were arranged 2-3 times a year, dances, swimming and special training in a heated swimming pool with a physiotherapist B) Nutrition: cholesterol measurement in grocery shops healthy recipes and menus based on local food traditions (covered by the local newspaper and radio) evening cookery classes -the Fishermen Union's Welfare Station produced low fat, vacuum-packed dinners, which could easily be prepared in simple facilities on board. These meals were sold commercially to the fleet and became a success. C) Smoking: smoke-free health center, schools, and kindergartens (smoking rooms) long term aim of smoke-free public buildings by 2002.</p>	<p>Diet + PA + Smoking</p>	<p>PUBLIC: Community engagement. And community events. Workshops, Mass media, schools, sports club, BS</p>
<p>Carlsson KA, Lasater TM, Assaf AR, Feldman HA: The Pawtucket Heart Health Program: community changes in cardiovascular risk factors and projected disease risk. <i>American Journal of Public Health</i> 85:177-186, 1995</p>	<p>people aged 18 through 64 years</p>	<p>community</p>	<p>intervention NON EFFICIENT</p>	<p>control group ok</p>	<p>BAC</p>	<p>blood pressure , cholesterol levels, smoking, BMI, projected cardiovascular disease</p>	<p>EXCLUSION</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>Weinehall L, Westman G, Hellsten G, Boman K, Hallmans G, Pearson TA, Wall S: Shifting the distribution of risk: results of a community intervention in a Swedish programme for the prevention of cardiovascular disease. <i>Journal of Epidemiology & Community Health</i> 53:243-250, 1999</p>	<p>All 30, 40, 50, and 60 year old inhabitants from a Northern Sweden municipality (5500 inhabitants), which constituted the intervention area while the Northern Sweden region (535 000 inhabitants) served as the reference area.</p>	<p>community</p>	<p>intervention ok</p>	<p>control group ok</p>	<p>BAC and cross sectional study</p>	<p>blood pressure, plasma lipids, weight, BMI</p>	<p>Inclusion</p>	<p>Intervention: -population based intervention -As the health examination was an integral part of the community-based activities, it included all age eligible participants and not only people at higher CVD risk. health education activities and methods such as drama, music, and informal meetings. -message about life style factors (eating habits, alcohol, physical activity, and psychosocial factors) -a health provider survey focusing on the traditional risk factors for CVD once a year (plasma lipids, blood pressure, glucose tolerance, smoking, and body mass index) the high risk persons received further medical and life style advice according to the project guidelines -possibility to assess their blood pressure and lipids at the health center Participants: carried out by local associations, sport clubs, media, and food retailers, coordinated by a local collaborative committee, representing voluntary organizations as well as the Norrbö municipality executive board and the Norrbö PHC (Primary Health Care) Family physicians, district nurses, and dietitians Tools: -food labelling system was introduced in the grocery shops (foods with a low fat and/or high fibre content were marked with a special heart symbol) -great deal of publicity in local as well as in national newspapers and on radio/television -the framework of the existing community organizations, with almost no additional financial support.</p>	<p>1998</p> <p>Health education: -using drama, music, and informal meetings -messages about life style factors (eating habits, alcohol, physical activity, and psychosocial factors) Diet: -food labelling system was introduced in the grocery shops (foods with a low fat and/or high fibre content were marked with a special heart symbol) Intervention: -population based intervention -it included all age eligible participants and not only people at higher CVD risk. -a health provider survey focusing on the traditional risk factors for CVD once a year (plasma lipids, blood pressure, glucose tolerance, smoking, and body mass index) -possibility to assess their blood pressure and lipids at the health center at their own initiative Tools: -publicity in local as well as in national media -the framework of the existing community organizations, with almost no additional financial support. Participants: family physicians, district nurses, dietitians, local associations, sport clubs, media, and food retailers</p>	<p>Diet + Health Education</p>	<p>BS + material</p>
<p>Farguhar JW, Maccoby N, Wood PD, Alexander JK, Broffers H, Brown BW, Hadad' WL, McKeister AL, Meyer AJ, Nash DS, Stein MP: Community education for cardiovascular health. <i>Lancet</i> 1:1192-1195, 1977</p>	<p>inhabitants of three communities in northern California</p>	<p>community</p>	<p>intervention not assessable, no statistic available</p>	<p>control group ok</p>	<p>BAC</p>	<p>knowledge and behavior related to cardiovascular disease (e.g., diet and smoking), blood pressure, relative weight, plasma-cholesterol, risk of cardiovascular disease</p>	<p>EXCLUSION</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>Puukka P, Tuomi-aho J, Nissinen A, Salonen JT, Vartiainen E, Pietinen P, Kaulola K, Korhonen H: The North Karelia project: 15 years of community-based prevention of coronary heart disease. <i>Am Med</i> 21:129-173, 1989</p>	<p>North Karelia project / population of North Karelia (Finland)</p>	<p>community</p>	<p>intervention ok</p>	<p>control group ok</p>	<p>BAC</p>	<p>cardiovascular mortality rate, CVD-related disability rates, smoking, cholesterol levels, blood pressure</p>	<p>Inclusion</p>	<p>Intervention: -health education and other activities, to promote lifestyles that reduced the risk factor levels and promote a health comprehensive educational and service-oriented program primary prevention through a general reduction in the population of well-established risk factors such as smoking, high serum cholesterol levels, and high blood pressure. Healthcare services: -social support for change -environmental modifications were arranged as part of the comprehensive community organization for change. Location: based on local community activities and local service structure Participants: local health services and their staff, various community organizations Goal: to reduce mortality and morbidity rates of CHD and related major cardiovascular diseases among the whole population in the area, particularly in middle-aged men. Assessment: health behavior and risk factors by repeated independent surveys Tools for the assessment: myocardial infarction and stroke registers using WHO criteria (in North Karelia) national register data for mortality and disability pension changes</p>	<p>1984</p> <p>Health education: -Health education on and other activities: to promote lifestyles that reduced the risk factor levels and promote a health comprehensive educational and service-oriented program Location: based on local community activities and local service structure Participants: Local health services and their staff, various community organizations Goal: to reduce mortality and morbidity rates of CHD and related major cardiovascular diseases among the whole population in the area, particularly in middle-aged men. Assessment: health behavior and risk factors by repeated independent surveys Tools for the assessment: myocardial infarction and stroke registers using WHO criteria (in North Karelia), national register data for mortality and disability pension changes</p>	<p>Health education, community engagement</p>	<p>BA + Follow up</p>
<p>Hoffmeister H, Mensink GB, Stolzenberg H, Hoeltz J, Krauter H, Lasser U, Nussel E, Hullemann KD, Trotschel JV: Reduction of coronary heart disease risk factors in the German Cardiovascular Prevention study. <i>Preventive Medicine: An International Journal Devoted to Practice and Theory</i> 25:Mar:145, 1996</p>	<p>inhabitants of six regions of former West Germany</p>	<p>community</p>	<p>intervention ok</p>	<p>control group ok</p>	<p>BAC</p>	<p>blood pressure, serum lipids, BMI, smoking</p>	<p>Inclusion</p>	<p>Intervention: a multifaceted prevention program to improve health knowledge, awareness, attitude, and behavior Topics: healthy nutrition, more physical activity, quitting smoking, and the screening of a larger part of the population for hypertension and hypercholesterolemia. campaigns at community festivals, at public events, in restaurants, in supermarkets, in canteens, and in schools (availability of low salt and low fat products in local food suppliers) + information spots and advertisements in the local media adaptation of the campaigns: an intensive cholesterol lowering program that focused on dietary changes was initiated in several regions showing unfavorable trends for cholesterol levels after the midsurvey Weight reduction courses + seminars on nutritional topics, menus, information about ingredients and preparation of foods beneficial to cardiovascular health A diet low in meat, fat, salt, and calories was promoted and higher consumption of vegetables and cereal products was encouraged. recreational sporting events with varying intensity levels and educational sport circuits created establishment of non-smoking areas in public places + courses to help smokers quit, anti-smoking campaigns in the local media, and an intensive anti-smoking poster campaign blood screenings at social events, in factories, and at other occasions to enhance awareness about hypercholesterolemia and hypertension as risk factors; personal consultations to lower these risk factors by prevention measures and, if needed, medical treatment were offered individual consultations, health management programs, regular health festivals, and health weeks 55 Tools: Comprehensive health information materials (like brochures, leaflets, and poster) Location: existing facilities were used Participants: access to health care providers within the community was extended and improved. Collaboration between public health services, voluntary welfare federations, institutions for adult education, and sports and consumer associations, with the participation of physicians, medical assistants, obstetricians and nurses.</p>	<p>April, 1996</p> <p>Diet: A diet low in meat, fat, salt, and calories was promoted and higher consumption of vegetables and cereal products was encouraged. availability of low-salt and low-fat products in local food suppliers Smoking: -non-smoking areas in public places -courses to help smokers quit -anti-smoking campaigns in the local media -intensive anti-smoking poster campaign Blood screenings: at social events, in factories, and at other occasions with personal consultations to lower these risk factors by prevention measures or treat if needed Health education: courses and seminars, comprehensive health information materials (like brochures, leaflets, and posters) -campaigns at community festivals, at public events, in restaurants, in supermarkets, in canteens, and in schools. Participants: health care providers within the community (physicians, medical assistants, pharmacists) and teachers.</p>	<p>screening + Diet + PA + smoking</p>	<p>BA + material</p>

Murray DM, Luepker RV, Piria PL, Grimm RL, Bloom E, Davis MA, Blackburn H. Systematic risk factor screening and education: a community-wide approach to prevention of coronary heart disease. <i>Preventive Medicine</i> 15:661-672, 1986	adults living near the Heart Health Center in Minnesota, 1982	community	intervention ok	control group ok	BAC	blood pressure, total serum cholesterol, level of physical activity, self-reported weekly kilocalorie expenditure, resting heart rate, proportion on blood pressure medication, expired-air carbon monoxide, BMI, smoking	Inclusion	<p>The Heart Health Center: Test for total serum cholesterol, height and weight, blood pressure, expired-air carbon monoxide, and leisure-time physical activity. At each measurement station, participants received a health education message. After the measurements: 20 min with a health educator to review the test results and receive advice: to modify their diets, to increase their levels of physical activity, to have their blood pressures checked regularly, to take blood pressure medication if it was prescribed for them, and to quit smoking. Health educator: Focus on issues related to any elevated risk factor presented to the family. Invitation to take part in MHPH (Minnesota Heart Health Program) events</p> <p>Tools: videotape, printed materials, or both (showing how to change their behavior rather than presenting factual information) Color-coded risk factor cards to record each participant's risk factor level, and to provide a message tailored to the risk factor value. The Leisure Time Physical Activity Survey: computer program provided an estimate of the weekly kilocalorie expenditure from leisure-time physical activity.</p> <p>Diet: eating pattern messages focused on saturated fat, cholesterol, and sodium how to read labels, how to prepare foods with reduced fat and salt goal: to reach and then maintain ideal weight. Physical activity: encouragement to have a vigorous physical activity for 30 min at least 3 times per week</p> <p>Smoking: Smokers were encouraged to quit: non-smokers were told how to help smokers quit.</p>	1986	<p>Diet: eating pattern messages focused on saturated fat, cholesterol, and sodium how to read labels, how to prepare foods with reduced fat and salt goal: to reach and then maintain ideal weight. Physical activity: encouragement to have a vigorous physical activity for 30 min at least 3 times per week</p> <p>Smoking: Smokers were encouraged to quit: non-smokers were told how to help smokers quit.</p>	Diet + PA + Smoking	BA + material
Wilhelmsen L, Berglund G, Elmfeldt D, Tibblin G, Wedel H, Pennert K, Vedin A, Wilhelmsen C, Werkö L. The multifactor primary prevention trial in Götteberg, Sweden. <i>European Heart Journal</i> 7:279-288, 1986	about 30 000 men, 47-55 years old	community	intervention VARIABLE in intervention group, no exclusive "noet medication" intervention versus control group*	control group ok	BAC	coronary heart disease and stroke incidence and mortality	EXCLUSION	N/A	N/A	N/A		
Effectiveness of health checks conducted by nurses in primary care: final results of the OXCHECK study. Imperial Cancer Research Fund OXCHECK Study Group. [see comment]. <i>BMJ</i> 310:1099-1104, 1995	OXCHECK study / 11 090 men and women aged 35-64	community	intervention ok	control group ok	RCT	serum total cholesterol concentration, blood pressure, body mass index, and smoking prevalence (with biochemical validation of cessation), self-reported dietary, exercise, and alcohol habits.	Inclusion	<p>Location: <u>general practices</u> in a mixed urban and suburban setting, range of heavy and light industry, and varied demographic profile Interventions: Practice nurses. In some practices nurses in post combined health checks with other work, while in others nurses were employed specifically to perform health checks. Over the course of the study each practice received roughly 10 hours a week of a nurse's time. Nurse Training: a two day induction course a monthly evening training session with the medical and nursing coordinators to maintain and develop their knowledge and skills Intervention: invitation to health checks was by post, by telephone, and opportunistically during surgery visits. Practice nurses performed health checks according to a standard protocol of medical history, lifestyle questionnaire, dietary assessment, height, weight, blood pressure, blood sample for (determination of serum cholesterol concentration). Nurses were instructed to counsel patients about risk factors, with the emphasis on ascertaining the patients' views on change and negotiating priorities and targets for risk reduction, with the use of a patient centered communication model. Duration: Initial health checks took 45-60 minutes, and follow up visits 10-20 minutes.</p>	April 29, 1995	<p>Health education and health checks: Location: general practices in a mixed urban and suburban setting, range of heavy and light industry, and varied demographic profile Interventions: Practice nurse Nurse Training: a two day induction course + an annual study day + a monthly evening training session with the medical and nursing coordinators to maintain and develop their knowledge and skills Intervention: Invitation to health checks was by post, by telephone, and opportunistically during surgery visits. Practice nurses performed health checks according to a standard protocol. Nurses were instructed to counsel patients about risk factors, with the use of a patient centered communication model. Duration: Initial health checks took 45-60 minutes follow up visits 10-20 minutes.</p>	Health check + nurse counseling	BA + Follow up
Engberg M, Christensen B, Karlsmose B, Louis J, Lauritzen T. General health screenings to improve cardiovascular risk profiles: a randomized controlled trial in general practice with 5-year follow-up. <i>The Journal of Family Practice</i> 51:546-552, 2002	3000 patients, randomly selected middle-aged men and women aged 30 to 50 years from family practices in the district of Ebbot, Denmark.	community	intervention ok	control group ok	BAC	Cardiovascular risk score (CRS), body mass index (BMI), blood pressure, serum cholesterol, carbon monoxide in expiratory air, and tobacco use.	Inclusion	<p>Interventions: general practitioners, 3 laboratory assistants (who performed baseline health screenings) Training: Before the study began, the general practitioners participated in <u>assessing prevention of heart and lung disease, dietary advice and engaging in health discussions with patients.</u> Intervention: Invitation to participate with a questionnaire about general demographic information and lifestyle, signed by their general practitioner. All who agreed to participate received an extensive supplementary <u>health questionnaire</u> (with detailed questions that evaluated the participant's health, lifestyle, psychosocial status, and psychosocial life events) Participants were informed by their general practitioner about which intervention they would be offered. 1) Health screenings: Participants were given a multiphasic, broad-spectrum screening: calculation of cardiovascular risk score (CRS), an estimate of the risk of premature cardiovascular disease (calculated with sex, familial inheritance (number of family members with ischemic heart disease before age 55), tobacco use, blood pressure, serum cholesterol total, and BMI) personal written feedback from the GP, with advice relating primarily to lifestyle changes regarding abnormal values participants with elevated or high CRS were encouraged to see their GP, regardless of their randomization group. All participants also received information on health from the Danish Heart Foundation. 2) Health discussions: A 45-minute consultation with their own GP was offered to participants from the health screening plus discussion group. Prior to the consultation, the participants completed a short questionnaire about suitable topics for discussion. At the end of the consultation: to set a maximum of 3 health-related lifestyle goals for the following year. Follow-up: Follow-up took place 1 and 5 years after the baseline intervention (and consultations once a year for the health screening plus discussion group) follow-up questionnaires, health screenings and health discussions according to their group of randomization.</p>	July 2002	<p>Health education and health checks: Interventions: general practitioners, 3 laboratory assistants Training: for the GP, <u>assessing</u> on prevention of heart and lung disease, dietary advice, and engaging in health discussions with patients. Intervention: baseline <u>questionnaire</u> (with detailed questions that evaluated the participant's health, lifestyle, psychosocial status, and psychosocial life events) 1) Health screenings: calculation of cardiovascular risk score (CRS) personal written feedback from the GP, with advice relating primarily to lifestyle changes regarding abnormal values information on health from the Danish Heart Foundation. 2) Health discussions: A 45-minute consultation with their own GP At the end of the consultation: to set a maximum of 3 health-related lifestyle goals for the following year. Follow-up</p>	risk score + health counseling	BA + Follow up
Wood DA. Randomised controlled trial evaluating cardiovascular screening and intervention in general practice: principal results of British family heart study. <i>British Medical Journal</i> 308:1333-30, 1994	12,472 men aged 40-59 and their partners (7460 men and 5012 women) identified by household	community	intervention ok	control group ok	RCT	total coronary (Dundee) risk score, cigarette smoking, weight, blood pressure, blood cholesterol and glucose concentrations	Inclusion	<p>PARTICIPANTS: Research nurses were recruited locally and trained centrally in the Department of Clinical Epidemiology at the National Heart and Lung Institute, London. Training comprised questionnaire interviews on a laptop computer, measurement of risk factors, quality assurance and follow-up, and client centred counselling about lifestyle within families. INTERVENTION: Families were screened, offered risk related lifestyle intervention and follow-up, and then re-screened after one year. By means of a coronary risk score derived from the intermediate score of the British regional heart study based on both modifiable and unmodifiable risk factors, subjects were told which decile of the distribution of risk for coronary heart disease they were in relative to other men (or women) of the same age. Those who reported a history of coronary heart disease or other past or present cardiovascular disease were automatically placed in the top decile of risk. The risk score was recorded in a booklet, "Your passport to health," in which personally negotiated lifestyle changes in relation to smoking, weight, healthy eating, alcohol consumption, and exercise could be documented. When appropriate, Health Education Authority pamphlets on each of these subjects were provided. The telephone follow-up was determined by both the coronary risk score and individual risk factors. Adults (either partner) in the top quintile of the risk distribution were offered follow-up every two months, those in the fourth quintile every three months, those in the third quintile every four months, those in the second quintile every six months, and those in the bottom quintile at one year. People with individual high risk factors - current cigarette smokers and those with a body mass index ≥ 25, diastolic blood pressure ≥ 90 mm Hg, cholesterol concentration ≥ 5 mmol/l, or random glucose concentration > 7 mmol/l - were also invited to return every month for up to three months. Patients with glucose concentration ≥ 10 mmol/l or diastolic pressure ≥ 115 mm Hg on any occasion were referred to their general practitioner, as were those with cholesterol concentration ≥ 6.5 mmol/l or diastolic pressure ≥ 100 mm Hg sustained for three months.</p>	January 29, 1994	<p>Health education: Screening and education by trained research nurses subjects were told which decile of the distribution of risk for coronary heart disease they were in relative to other men (or women) of the same age. Frequency of follow-up depending on both the coronary risk score and individual risk factors The risk score was recorded in a booklet, "Your passport to health," in which personally negotiated lifestyle changes in relation to smoking, weight, healthy eating, alcohol consumption, and exercise could be documented.</p>	screening + Diet + PA + smoking + lifestyle	BA + material + Follow up
Shelley E, Daly L, Collins C, Christie M, Conroy R, Gibney M, Mckinley N, Kelleher C, Killycote D, Lee P., Cardiovascular risk factor changes in the Kilkenny Health Project. A community health promotion programme. <i>Eur Heart J</i> 16:752-760, 1995	Kilkenny Health Project/ men and women aged 35 to 64 years in Kilkenny	community	intervention NON EFFICIENT	control group ok	BAC	blood pressure, serum total cholesterol, cigarette smoking, BMI, 5-year risk of a coronary heart disease	EXCLUSION	N/A	N/A	N/A		
Gutzwiller F, Nater A, Martin J. Community-based primary prevention of cardiovascular disease in Switzerland: methods and results of the National Research Program (NRP 1A). <i>Preventive Medicine</i> 14:482-491, 1985	2206 inhabitants of Switzerland aged 16-69	community	intervention NON EFFICIENT (in the abstract the only significant modification is the number of people who quit smoking in the intervention towns, but in the Results section there is no comparison with the reference towns, because in the reference towns the decrease is not statistically significant)	control group ok	BAC	smoking, blood pressure, cholesterol levels, weight, BMI	EXCLUSION	N/A	N/A	N/A		

Schuit AJ, Wendt-Vos GC, Verschuren WM, Romkers ET, Ament A, van AP, van RJ, Ruland EC. Effect of 5-year community intervention Hartslag Limburg on cardiovascular risk factors. <i>Am J Prev Med</i> 30:237-242, 2006.	3895 inhabitants of the Maastricht region	community	intervention ok	control group ok	BAC	Body mass index (BMI), waist circumference, blood pressure, serum glucose (nonfasting), and serum total and high-density lipoprotein (HDL) cholesterol.	Inclusion	<p>INTERVENTION : community based intervention, project Hartslag Limburg : to decrease the prevalence of CVD in the general population of the Maastricht region by encouraging the inhabitants to become more active, reduce their fat intake, and stop smoking. To increase knowledge and awareness of one's own behavior was the main objective of about 50% of all activities.</p> <p>Hartslag Limburg integrates two strategies: (1) a population-wide strategy aimed at all inhabitants and specifically at low socioeconomic status groups, and (2) a subgroup strategy focused on individuals diagnosed with CVD or multiple physical risk factors for CVD.</p> <p>From 1999 until 2003, a total number of 790 interventions have been implemented, of which 590 were major interventions (93 diet, 361 physical activity, and 9 antismoking). Almost 50% of the interventions took place in low income areas.</p> <p>Examples of activities include computer tailored nutrition education, nutrition education tours in supermarkets, public-private collaboration with the retail sector, television programs, food labeling, smokefree areas, creating walking and bicycling clubs, walking and cycling campaigns, and a stop-smoking campaign, in addition to commercial on local television and radio, newspaper articles, pamphlet distribution, a regional campaign to promote physical activity among individuals over 55, a daily regional television program called 'Heartbeat on the Move' to promote physical activity, and a non-smoking campaign for the parents of children in playgroups.</p> <p>PARTICIPANTS : The main partners in the community project are the city councils of Maastricht and four adjacent municipalities, the Regional Public Health Institute Maastricht (RPHI), two community social work organizations, and the regional community healthcare organization. Collaboration among these partners is achieved through related local health committees that organize activities which promote and facilitate healthy lifestyles, and the organizers of activities: mostly health professionals in the case of physical activity and nutritional activities.</p>	March, 2006	<p>PHYSICAL ACTIVITY : creating walking and bicycling clubs, walking and cycling campaigns, a regional campaign to promote physical activity among individuals over 55</p> <p>SMOKING : smokefree areas, a stop-smoking campaign, a non-smoking campaign for the parents of children in playgroups.</p> <p>HEALTH EDUCATION : television programs, commercial on local television and radio, newspaper articles, pamphlet distribution.</p>	Diet + PA + Smoking	BA + material
Luepker RV, Murray DM, Jacobs DR, Mittlemark MB. Community education for cardiovascular disease prevention: risk factor change in the Minnesota Heart Health Program. <i>American Journal of Public Health</i> 84:1383-1393, 1994	Minnesota Heart Health Program	community	intervention NON EFFICIENT	control group ok	BAC	Blood cholesterol levels, Exposure to Risk Reduction Activities, smoking prevalence, blood pressure, BMI, regular physical activity, coronary heart disease risk	EXCLUSION	N/A	September, 1994	N/A		
Giampaloli S, Poca A, Sciarra F, Lo NC, Dima F, Minoprio A, Santapaola A, Casola Di SP, Volpe E, Menditto A, Menetti A, Urbaniati GC. Change in cardiovascular risk factors during a 10-year community intervention program. <i>Acta Cardiologica</i> 52:411-422, 1997	739 men and 859 women in the treatment area and 942 men and 1045 women in the control area, aged 20-60 years, from a rural area in central Italy	community	intervention ok	control group ok	BAC	total and HDL cholesterol, systolic and diastolic blood pressure, fasting blood glucose, smoking habit, weight and height	Inclusion	<p>INTERVENTION :</p> <ol style="list-style-type: none"> 1. mass health education : carried out at all levels with special attention to schools and work places. Among the younger generations, preventive activity mainly involved intervention in school to take advantage of the interest of children and adolescents, and thus reach the whole family. Intervention included the following activities: preparation and distribution of printed material, setting up of consulting rooms, organization of lectures and exhibitions, theoretical and practical courses for teachers and health care personnel. 2. community checks on arterial hypertension. 3. information on diet. 4. anti-smoking propaganda. 5. campaign in favour of regular physical activity. 	January 2, 1997	<p>Health education : mass health education : carried out at all levels with special attention to schools and work places. (preparation and distribution of printed material, setting up of consulting rooms, organization of lectures and exhibitions, theoretical and practical courses for teachers and health care personnel)</p> <p>community checks on arterial hypertension;</p> <p>Diet : information on diet;</p> <p>Smoking : anti-smoking propaganda;</p> <p>Physical activity : campaign in favour of regular physical activity.</p>	Diet + PA + Smoking + lifestyle	BA + material
Tudor-Smith C, Nutbeam D, Moore L, Catford J. Effects of the Heartbeat Wales programme over five years on behavioural risks for cardiovascular disease: quasi-experimental comparison of results from Wales and a matched reference area. <i>BMC Public Health</i> 16:1818-1822, 1998	people aged 18-64 years living in Wales and in north east England	community	intervention NON EFFICIENT	control group ok	cross sectional survey	Fifteen self reported behavioural indicators relating to dietary choice, smoking, frequency of exercise, and weight.	EXCLUSION	N/A	N/A	N/A		
Baxter T, Milner P, Wilson K, Leaf M, Nicholl J, Freeman J, Cooper F. A cost effective, community based heart health promotion project in Northampton, from areas with high incidence of coronary heart disease. <i>BMC Clinical Research</i> vol. 3:15-582-585, 1997	adults aged 18-64 in Northampton, from areas with high incidence of coronary heart disease	community	NO INTERVENTION description	control group ok	BAC	smoking, drinking low fat milk, Wholemeal bread consumption, low fat spreads consumption, weight, exercise, blood pressure, cholesterol levels	EXCLUSION	N/A	N/A	N/A		
Brownson RC, Smith CA, Pratt M, Mack NE. Preventing cardiovascular disease through community-based risk reduction: the Bootheel Heart Health Project. <i>American Journal of Public Health</i> 86:206-213, 1996	Bootheel Heart Health Project / inhabitants from southeastern Missouri	community	intervention ok	control group ok	cross-sectional survey	self-reported physical inactivity, cigarette smoking, consumption of fruits and vegetables, overweight, and cholesterol screening.	Inclusion	<p>INTERVENTION : Each of the six county coalitions received about \$5000 per year to implement community based interventions : walking clubs, aerobic exercise classes, heart healthy cooking demonstrations, community blood pressure, cholesterol and diabetes screenings.</p> <p>Annual heart healthy fitness festivals : exercise demonstrations, registration for exercise classes and walking clubs, and screenings for hypertension, diabetes and cholesterol</p> <p>"A High Blood Pressure Sunday" : ministers included heart disease education in the sermons, congregations were screened for hypertension, heart healthy dinners served in the church</p> <p>Poster contests between schools, the winning entries being written by local newspapers</p> <p>A weekly newspaper column on heart disease prevention featured by a coalition member</p> <p>Environmental changes : construction of a walking and fitness path</p> <p>PARTICIPANTS : Local health agencies were a key component in the coalition development process, providing assistance in many areas, including provision of blood pressure and cholesterol screenings, training, and distribution of local funds for coalition activities. ASSESSMENT : 2 special surveys (based on the methods of the Behavioral Risk Factor Surveillance System) administered by trained interviewers, by phone</p>	February, 1996	<p>Physical activity : festivals with exercise demonstrations, registration for exercise classes and walking clubs, construction of a walking and fitness path</p> <p>Health education : A weekly newspaper column on heart disease prevention written by a coalition member, ministers included heart disease education in the sermons, congregations were screened for hypertension, screenings for hypertension, diabetes and cholesterol, poster contest</p> <p>Diet : heart healthy dinners served in the church, heart healthy cooking demonstrations</p>	screening + Diet + PA	BA
Croft JB, Temple SP, Lankenau B, Heath GW, Macera CA, Ekler ED, Wheeler FC. Community intervention and trends in dietary fat consumption among black and white adults. <i>J Am Diet Assoc</i> 94:1284-1290, 1994	9,839 adults, aged 18 years or older, in two South Carolina communities	community	intervention ok	control group ok	cross-sectional survey	levels of dietary fat and weekly meat consumption, salt use, and nutrition promotion awareness	Inclusion	<p>PARTICIPANTS : involved all segments of the community in an effort to create a community environment that promoted cardio-vascular health and helped residents make lifestyle changes.</p> <p>The Clemson University Cooperative Extension Service and the McLeod Regional Medical Center provided services that included blood pressure and cholesterol screenings and nutrition programs. Voluntary and civic agencies, businesses, churches, and other hospitals provided volunteers, programs, facilities, and materials in conjunction with the intervention project.</p> <p>The South Carolina Dietetic Association also provided volunteers</p> <p>INTERVENTION :</p> <ol style="list-style-type: none"> 1) Nutrition education programs : community classes, grocery store tours, speakers bureau, professional education classes, home study courses, and worksite nutrition education programs. Local radio and television public service announcements and talk shows, newspaper articles on the food pages, and supermarket advertisements reinforced the healthful eating behavior messages promoted by both ongoing and special cyclical program activities. Specific nutrition topics stressed were (a) the relationship of dietary fat to serum cholesterol level, (b) saturated versus unsaturated fat, (c) sodium reduction, (d) use of low-fat dairy products, and (e) use of lean meats, fish, and poultry. 2) Shop Smart for a Healthy Heart, a month-long supermarket point-of-purchase program promoted consumer label reading and provided consumers with nutrition information about heart healthy food choices in the grocery store. Approximately 40,000 nutrition tip sheets were distributed directly or in shopping bags to customers at four local supermarkets. 3) Each week of the campaign, nutrition intervention activities took place in the four participating supermarkets: food demonstrations, shopping assistance, and grocery store tours. The campaign concluded with prize drawings sponsored by local grocery stores and with a 2-hour heart healthy cooking school cosponsored by the state Department of Agriculture and the Department of Wildlife and Marine Resources. 4) A task force of local restaurant managers, dietitians, and members of the news media was established to implement the restaurant labeling program, entitled Eat Smart for a Healthy Heart. Dietitians met with individual managers to evaluate recipes and review menu items that met the heart healthy criteria (low fat and low sodium) and to discuss recipe modifications. Afterwards, the dietitians provided a 3-hour educational training program for restaurant staff to ensure that all staff were comfortable responding to questions from consumers. The dietitians supplied promotional materials to the restaurants, and then monitored each restaurant's participation monthly during the first 3 months and quarterly thereafter. By December 1993, the restaurant labeling program had become institutionalized in the community. 	November, 1994	<p>Diet :</p> <p>Nutrition education programs : community classes, grocery store tours, professional education classes, home study course, and worksite nutrition education programs.</p> <p>Local radio and television public service announcements and talk shows, newspaper articles on the food pages, and supermarket advertisements reinforced the healthful eating behavior messages promoted. Specific nutrition topics stressed were (a) the relationship of dietary fat to serum cholesterol level, (b) saturated versus unsaturated fat, (c) sodium reduction, (d) use of low-fat dairy products, and (e) use of lean meats, fish, and poultry.</p> <p>a month-long supermarket point-of-purchase program promoted consumer label reading and provided consumers with nutrition information about heart healthy food choices in the grocery store, with nutrition intervention activities once a week</p> <p>distribution of self-help kits : resolutions to lose weight and to eat less saturated fats, targeted primarily at adults who were 15 to 25 lb overweight.</p> <p>restaurant labeling program institutionalized in the community.</p>	Diet	BS + material, GROUPS (Community)
O'Loughlin JL, Paradis G, Gray-Donald K, Renaud L. The impact of a community-based heart disease prevention program in a low-income, inner-city neighborhood. <i>American Journal of Public Health</i> 89:1819-1826, 1999	adults aged 18 to 65 years living in St-Henri, a low-income, innercity neighborhood in Montreal, Quebec	community	intervention NON EFFICIENT	control group ok	BAC and cross-sectional study	Awareness of the program, participation to the program, smoking, high fat diet, physical inactivity, frequency of cholesterol checks	EXCLUSION	N/A	N/A	N/A		
Christian AH, Roamond W, White AR, Mosca L. Nine-year trends and racial and ethnic disparities in women's awareness of heart disease and stroke: An American Heart Association national study. <i>Journal of Women's Health</i> 16:68-81, 2007	1,005 women identified through a national digit dialing mean age 50 years	community	intervention not assessable : no comparison with a control group	no control group	BAC	awareness of heart disease as the leading cause of death among women, information about stroke compared to heart disease, actions to make to avoid CVD, confusion related to heart CVD prevention strategies.	EXCLUSION	57	February 26, 2007			

Muntani S, Stabellini L, Stabellini M: Results of a five-year community-based programme for cardiovascular disease prevention: the ATS-Sardegna Campaign. European Journal of Epidemiology 15:29-34, 1999	ATS-Sardegna Campaign	community	Intervention not assessable: no comparison with a control group	no control group	cross sectional study	eating habits, LDL-cholesterol, blood pressure, smoking	EXCLUSION						
Von Huth SL, Ladelund S, Borch-Johnsen K, Jorgensen T: A randomized multifactorial intervention study for prevention of ischaemic heart disease (Inter99): the long-term effect on physical activity. Scand J Public Health 36:380-388, 2008	10,108 subjects living in the south-western part of Copenhagen County	Research center NOT COMMUNITY	Intervention ok	control group ok	BAC	cardiovascular risk score (CRS), body mass index (BMI), blood pressure, serum cholesterol, carbon monoxide in expiratory air, and tobacco use.	EXCLUSION	N/A	N/A	N/A			
Higginsbotham N, Healding G, McElduff P, Dobson A, Heller R: Reducing coronary heart disease in the Australian Coalfields: evaluation of a 10-year community intervention. Soc Sci Med 48:684-692, 1999	people aged 35-64 years living in the Australian Coalfields	community	intervention NON EFFICIENT	control group ok	BAC	smoking, blood pressure, cholesterol levels, absence of physical activity, BMI, case fatality, going directly to the hospital by car, coronary event	EXCLUSION	N/A	N/A	N/A			
Record NB, Harris DL, Record SS, Gilbert-Arcari J, DeStata M, Bunnett S: Mortality impact of an integrated community cardiovascular health program. American Journal of Preventive Medicine 19:30-38, 2000	inhabitants of Franklin County and two comparison counties in rural Maine.	clinic NOT COMMUNITY	intervention ok	control group ok	BAC	blood pressure, cholesterol levels, total, heart, coronary, and cancer death rates, HBP drug treatment, lipid drug treatment, smoking prevalence	EXCLUSION	N/A	N/A	N/A			
Berglund G, Nilsson P, Eriksson KF, Nilsson JA, Hedblad B, Kristenson H, Lindgarde F: Long term outcome of the Malmo preventive project: mortality and cardiovascular morbidity [see comment]. Journal of Internal Medicine 247:19-29, 2000	middle-aged males and females	outpatient clinics NOT COMMUNITY	intervention NON EFFICIENT	control group ok	BAC	mortality, nonfatal myocardial infarction and stroke	EXCLUSION	N/A	N/A	N/A			
Blamey A, Ayana M, Lawson L, Mackinnon J, Paterson I, and Judge K: Final report of the independent evaluation of Have a Heart Paisley. 1:136. 2004. The University of Glasgow.	Paisley and Inverclyde residents	community	intervention NON EFFICIENT	CONTROL GROUP ABSENCE	cross sectional study	knowledge of the number of portions of fruit and vegetables that should be eaten each day, self-reported number of portions of vegetables eaten in a day, blood pressure, smoking, physical activity level, weight, CVD	EXCLUSION	N/A	N/A	N/A			
Oluf M, Jørgensen NB, Oluf M, Jørgensen NB: The effect of a community-based cardiovascular disease prevention project in a Danish municipality. Danish Medical Bulletin 40:485-489, 1993	About 8000 inhabitants from a rural Danish municipality (Slangerup)	community	intervention NON EFFICIENT	control group ok	BAC and cross sectional study	smoking, eating and exercise behaviours	EXCLUSION	N/A	N/A	N/A			
Kottler TE, Hochstetler, Lopez-Zimmerer E, Brekke CK, Brekke WR, Wade LA, DeBoer SW, Hayes SN, Hoffman RS, Mangan MA, Menzel PA: CardioVital: 20-year program effectiveness and processes after 4 years	All Unimac County, Minnesota residents aged 50+ years	community	NO INTERVENTION (interviews)	CONTROL GROUP ABSENCE	cross sectional population	blood pressure, cholesterol levels, fruit and vegetable consumption, body mass index, participation in physical activity, smoking	EXCLUSION	N/A	N/A	N/A			
Nafziger AM, Erb TA, Jenkins PL, Lewis C, Pearson TA: The Otsego-Scholarie healthy heart program: prevention of cardiovascular disease in the rural US. Scandinavian Journal of Public Health 31:32-39, 2001	rural population of 158,000 located in New York state	community	intervention ok	control group ok	BAC, cross sectional population surveys	self-reported smoking status, blood pressure, BMI	Inclusion		June 1, 2001	<p>a multifaceted, multimedia 5-year educational program: a strategy using a combination of « macro » and « micro » approaches :</p> <p>« macro » approach: included formation of a two county-wide Advisory Council, risk factor-specific task forces, categorical programs (nutrition, physical activity, tobacco awareness), and mass media campaigns.</p> <p>« micro » approach: based on the community organization of rural villages, using media unique to these small, cohesive areas.</p> <p>Smoking: Smoking cessation education, Smoking cessation referrals, School-based smoking prevention programs, Home poster contests, Organization and promotion of local walking groups.</p> <p>Diet: Healthy diet education: Recipe contests, Supermarket tours, Listing of restaurants with heart-healthy menu choices, Schools.</p> <p>Risk factor screenings: Workplaces, Local health fairs (Healthy Heart Hometowns), Village festivals,</p> <p>Health education: Media efforts: Radio spots, Newspaper articles, Newspaper advertisements, Brochures, Healthy Heart Tips, Fact sheets for low literacy audiences, used for: Workplace postings, Psychcheck inserts, Grocery store postings, Medical clinic postings, Dental clinic postings, Schools.</p> <p>Professional education: Professional education materials, Risk factor intervention education, Tools and methods for improving compliance.</p>	screening + Diet + PA + smoking cessation	B5 + material + Follow up	
Ronda G, van AP, Candel M, Ruland E, Steenbakkers M, van Ri, Brug J: The Dutch Heart Health community intervention 'Hartslag Limburg': results of an effect study at individual level. Health Promotion International 19:21-31, 2004	N/A	N/A	NO INTERVENTION (process study)	N/A	N/A	N/A	EXCLUSION	N/A	N/A	N/A			

Goodman, R. M., Wheeler, F. C., & Lee, P. A. 1995. "Evaluation of the Heart To Heart Project: Lessons from a community-based chronic disease prevention project". American Journal of Health Promotion, vol. 9, no. 6, pp. 443-455	A random sample of 1642 persons in Florence, South Carolina	community	intervention ok	control group ok	BAC and cross-sectional study	hypertension, obesity, high cholesterol, smoking, and exercise. Physical assessments determined lipid, lipoprotein, apolipoprotein, and blood pressure levels	Inclusion	The Heart To Heart Project implemented two types of activities: 1) Community-wide campaigns that were time limited (generally not longer than 4 months) a month-long physical fitness campaign that provided opportunities for people to engage in a variety of physical activities and to commit to a fitness plan, with emphasis on walking a smoking cessation campaign designed to sign up at least 200 smokers to pledge to quit a campaign in which supermarkets allowed on-site educational activities designed to increase shoppers' awareness of the relationship of fat and sodium to heart disease and to give them an opportunity to taste low-fat, low-sodium foods a campaign that encouraged sedentary adults in Florence to walk 33,000 miles collectively, the equivalent of a round-the-world trip challenging Florence to log 221,000 fitness miles, the distance to the moon, by walking, running, swimming, biking, and using exercise equipment 2) Ongoing activities: - presentations by persons who volunteered for a project-sponsored speakers' bureau - development of a health promotion programs resource inventory that was distributed to local work sites; use of the electronic and print media, billboards, and church bulletins to impart heart health information; participation in local health fairs at which cholesterol and high blood pressure screenings were offered; distribution of education materials such as self-help kits for smoking cessation. - labeling of heart healthy foods on restaurant menus. - posting, seminars and training in monitoring blood pressure for church members. - presentations to health care providers to communicate the latest guidelines and referral procedures for cardiovascular conditions; and development of walking trails throughout Florence. The Heart To Heart staff implemented many of these activities directly but also contracted with other health and social agencies and enlisted an array of volunteers to organize other events.	August, 1995	Physical activity: a campaign that encouraged sedentary adults in Florence to walk 33,000 miles collectively, the equivalent of a round-the-world trip challenging Florence to log 221,000 fitness miles, the distance to the moon, by walking, running, swimming, biking, and using exercise equipment a month-long physical fitness campaign that provided opportunities for people to engage in a variety of physical activities and to commit to a fitness plan, with emphasis on walking Diet: a campaign in which supermarkets allowed on-site educational activities designed to increase shoppers' awareness of the relationship of fat and sodium to heart disease and to give them an opportunity to taste low-fat, low-sodium foods labeling of heart healthy foods on restaurant menus; provision of church-based cooking seminars and training in monitoring blood pressure for church members; Health education: a smoking cessation campaign designed to sign up at least 200 smokers to pledge to quit development of a health promotion programs resource inventory that was distributed to local work sites; use of the electronic and print media, billboards, and church bulletins to impart heart health information	Diet + PA + Smoking	BS + material
Belaçcair LM, Reboussin DM, Haffner SM et al. (2010) A 1-year lifestyle intervention for weight loss in individuals with type 2 diabetes reduces high C-reactive protein levels and identifies metabolic predictors of change from the Look AHEAD Action for Health in Diabetes study. Diabetes Care 33(11): 2297-303	2799 people from the Look AHEAD trial	CLINICS NOT COMMUNITY	intervention ok	control group ok	RCT	hs-CRP, weight, A1c, cholesterol levels, fitness, triglycerides	EXCLUSION	N/A	N/A	N/A		
Kerr J, Eves F, Carroll D. Encouraging stair use: stair-riser banners are better than posters. Am J Public Health. 2001;91:1192-1193.	shoppers from two shopping malls	community	intervention ok	control group ok	cross-sectional study	stair use	Inclusion	LOCATION: The study was conducted at 2 shopping malls; both sites had 28-step staircases with adjacent escalators. INTERVENTION: At the control site, a 2-week baseline period was followed by 4 weeks during which a poster that read "Stay healthy, use the stairs" was displayed. At the experimental site, 2 weeks of baseline observation and 2 weeks of the poster intervention were followed by 2 weeks during which banners, containing multiple messages, were placed on the stair risers. ASSESSMENT: an observer recorded the number of people using the escalators and stairs on alternate days at each location (between 11 am and 1 pm to include day and lunchtime shoppers)	August, 2001	Physical activity: stair use in malls, with a poster that read "Stay healthy, use the stairs," or with banners containing multiple messages, such as "Keep fit," "Be active," and "Free exercise."	PUBLIC Changes, signs and prompting	BA + material
Narayan KM Hoskin M Kozak D Krishna AM Hanson RL Pettit DJ et al. Randomized clinical trial of lifestyle interventions in Pima Indians: a pilot study. Diabet Med 1998;15:6672	Ninety-five obese, ethnically diverse men and women, aged 55-64 years Pima Indians of Arizona	community	intervention ok	no control group	BAC	Adherence to interventions, self-reported activity and diet, weight, glucose concentrations, starch intake, BMI, blood pressure	Inclusion	1) Pima Action: A) increase energy expenditure over baseline by 700-1000 kcal per week through physical activity (e.g. 10-12 h of walking per month). Choice of an activity: (walking, water aerobics, softball, volleyball), and paid activities such as community farming/gardening, and cleaning the local cemetery) Choice of walking alone or in group. Each patient maintained a monthly activity log which was reviewed by staff. B) Nutrition intervention: to reduce fat and alcohol and increase fibre intake. Advised by a dietitian keeping with the recommendations of the American Diabetes Association, weekly group meetings, reinforced with home visits as warranted. Behavioural techniques were used. Classes consisted of modelling and role playing, group problem-solving, food preparation demonstrations, food tasting, and grocery store tours. 2) Pima Guide: self-directed learning, facilitated by an appellation of Pima culture. small groups Frequency approximately once a month to discuss their understanding and attitudes about current lifestyles of the community, and listened to local speakers on Pima culture and history. Each group was facilitated by a discussion leader who was a member of the community. Agenda cards for these meetings were maintained by staff members. Participant also received basic printed information on healthy eating and exercise habits. Pima Prides newsletters were used to facilitate communication between staff and group members, and among members themselves. Some members also contributed to these newsletters, which carried Pima poetry, stories, and folklore. Members also took part in a detailed interview , lasting between 40 min and 2 h, on their perceptions about health and lifestyle.	January, 1998	Physical activity: choice between activities (Walking, water aerobics, softball, volleyball, and paid activities such as community farming/gardening, and cleaning the local cemetery), choice to practice alone or in group Diet: advised by a dietitian: to reduce fat and alcohol and increase fibre intake Health education: monthly meetings, to understand the lifestyle in the community, using the local culture printed information + detailed interviews	Diet + PA + Health Education	BS
Hoffstad E, Robertson L. Physical activity is associated with weight loss and increased cardiorespiratory fitness in severely obese men and women undergoing lifestyle treatment. J Obes. 2012;2012	Seventy-one severely obese patients who chose lifestyle treatment over bariatric surgery, from Norway	HOSPITAL NOT COMMUNITY	intervention ok	NO CONTROL GROUP	BAC	weight, VO2 max, physical activity, cardiorespiratory fitness	EXCLUSION	N/A	N/A	N/A		
Aaro, L.E. (1991a). The cardiovascular intervention program in Oppland County, Norway. In Sport for All Proceedings of the World Congress on Sport for All (edited by P. Qv and R. Terama), pp. 194-195. Amsterdam: Elsevier.	N/A	N/A	NO INTERVENTION (book, not study)	N/A	N/A	N/A	EXCLUSION	N/A	N/A	N/A		
Aaro, L.E. (1991b). A campaign for the promotion of physical fitness in Segn Og Fjordane County, Norway. In Sport for All Proceedings of the World Congress on Sport for All (edited by P. Qv and R. Terama), pp. 194-195. Amsterdam: Elsevier.	N/A	N/A	NO INTERVENTION (book, not study)	N/A	N/A	N/A	EXCLUSION	N/A	N/A	N/A		
Abedi P, Lee MKS, Kandiah M, Yassin Z, Shajessade D, Hosseini M, et al. Diet intervention to improve cardiovascular risk factors among Iranian postmenopausal women. Nutrition Research and Practice 2010;4(4):22-7	64 healthy postmenopausal Iranian women	CLINIC NOT COMMUNITY	intervention ok	control group ok	RCT	weight, BMI, fasting blood sugar, daily intake of fiber, intake of sodium, consumption of fruit and vegetable	EXCLUSION	N/A	N/A	N/A		
Aggel Leijason D, Sariw, Wagnmakers A, Sander J, Van Baak M. Effect of exercise training at different intensities on fat metabolism in obese men. Journal of Applied Physiology 2002;93:3003-3009.	Twenty-four healthy male obese subjects	LABORATORY NOT COMMUNITY	intervention NON EFFICIENT	control group ok	RCT	fat metabolism, NOT ASSESSABLE IN USUAL PRACTICE, body composition, maximal aerobic capacity	EXCLUSION	N/A	N/A	N/A		
Nguru Collins TD, Kumanyika SK, Ten Have TL, Adams Campbell LL. A randomized controlled trial of weight reduction and exercise for diabetes management in older African American subjects: see comments. Diabetes Care 1997;20(10):1503-11	Overweight African Americans (n=64) ages 55-79 years with NIDDM	HOSPITAL NOT COMMUNITY	intervention ok	control group ok	RCT	weight, physical activity, dietary intake of fat-saturated fat, cholesterol, nutrition knowledge, HbA1c, blood pressure, blood lipids	EXCLUSION	N/A	October 1997	N/A		
Ahmad N, Eshaghtan S, Huzanga R, Sooini K, Ibrahim R, Siegel R. Effects of Intense Exercise and Moderate Calorie Restriction on Cardiovascular Risk Factors and Inflammation. Am J Med. 2011;124:978-982. PMID:21798505	Seventeen sedentary moderately obese contestants in the "Biggest Loser" television program	TV SHOW NOT COMMUNITY	intervention ok	NO CONTROL GROUP	BAC	carotid artery distensibility index (cADI), and carotid intima media thickness (cIMT), Serum insulin level, glucose, lipid profile, high-sensitivity C-reactive protein (CRP), hemoglobin A1c (HbA1c), resistin, adiponectin, plasminogen activator inhibitor-1 (PAI-1), tumor necrosis factor receptor 1 (TNFR1), lipoprotein a (Lp(a)), sex hormone binding globulin (SHBG), blood pressure, body fat, weight	EXCLUSION	N/A	N/A	N/A		
Albright CL, Florio JA, Fortmann SP. Restaurant menu labeling: impact of nutrition information on entree sales and patron attitudes. Health Educ Q. 1990;17:157-167.	patrons of four restaurants	community	intervention not assessable, no statistic available	NO CONTROL GROUP	cross-sectional study	Sales of labeled items	EXCLUSION	N/A	N/A	N/A		
Alcott R, DeCindri M. Clean Air Force Campaign 1989-1990: programs, attitudes, and commute behavior changes. Transport Res Res. 1991; 13(1): 14-44.	inhabitants of Phoenix, Arizona	community	intervention ok	NO CONTROL GROUP	cross-sectional study	travel behavior, air pollution awareness, traffic count: NOT RELATED TO CV PREVENTION	EXCLUSION	N/A	N/A	N/A		
Milic C, Avramiti F, Bettelli G, Bonati M, Colombi F, Carso R, et al. Feasibility of long term low-sodium diet in mild hypertension. J Hum Hypertens 1992; 6:281-286	77 previously undiagnosed mildly hypertensive patients	community	intervention NON EFFICIENT	control group ok	RCT	sodium from the 24 hour urine, blood pressures, heart rate, weight	EXCLUSION	N/A	N/A	N/A		

Al-Solaiman Y, Jori A, Mountford WK, Lackland DT, Zhao Y, Egan RM. DASH lowers blood pressure in obese hypertensives beyond potassium, magnesium and fibre. J Hum Hypertens. 2010;24(6): 237-246.	DASH diet, duplicate? / abnormally obese individuals with metabolic syndrome with pre-hypertension to stage 1 hypertension	community	intervention-NON APPLICABLE IN COMMON PRACTICE	control group ok	RCT	blood pressure, small artery elasticity, urine composition (sodium and potassium)	EXCLUSION	N/A	N/A	N/A		
Kimmelman AS, DeWells BM, Haines P, et al. Nutrition education for cardiovascular disease prevention among low-income populations— description and pilot evaluation of a physician based model. Patient Educ Counsel. 1992;19:3-18.	79 + 59 patients from outpatient clinics	community	intervention not assessable, no statistic available	control group ok	RCT	behavior changes, reaction to the physician dietary counseling	EXCLUSION	N/A	N/A	N/A		
Andersen RE, Frankowski SC, Snyder J, Bartlett SJ, Fontaine KR. Can in-person weight gain be prevented? Results from a community intervention. Ann Intern Med. 1996;129:363-369.	17901 shoppers	community	intervention ok	control group ok	BAC	use of stairs	Inclusion	<p>INTERVENTION</p> <p>1) Initial baseline phase: frequency of stair use compared with use of the adjacent escalator</p> <p>2) First interventional phase: a 22" x 28" sign with the caption "Your heart needs exercise, use the stairs". The sign featured a caricature of a heart at the top of a flight of stairs and the statement, "Your heart needs exercise, use the stairs."</p> <p>3) Second interventional phase: a similar sized sign was placed on an escalator. The sign featured a caricature of a woman at the top of a flight of stairs; she had thin waistline and was wearing pants with a waist that was too large. The caption on the sign read, "Improve your waistline, use the stairs."</p> <p>ASSESSMENT: between 9:30 a.m. and 9:00 p.m. on all days of the week, by one of the authors. Before the study began, the observer and the senior author spent one full day in the mall classifying shoppers by age and weight status to be sure that observations were as accurate as possible. The observer sat in an inconspicuous spot at the foot of the stairs that allowed for clear observation. Frequency of stair use was recorded in the same way during each of the three phases. Each person's sex and ethnicity was recorded. In addition, persons were judged to be 40 years of age or older or younger than 40 years of age. Finally, the observer noted whether the person appeared overweight.</p>	September, 1998	Physical activity: stair use in a mall, with a poster that read: "Your heart needs exercise, use the stairs" or "Improve your waistline, use the stairs".	Public changes, signs	BA
Anderson N, Bybee DL, Brown RM, et al. Is a 4 day fruit and vegetable intervention improves consumption in a low income population. J Am Diet Assoc. 2003;101:195-202.	Women under poverty threshold	community	Education only VS farmer's market coupons VS coupon and education VS no intervention EVERY GROUP IS GIVEN CASH INCENTIVE. Coupons is different	control group ok	RCT	COUPONS were effective for Self reported fruit and vegetable consumption, EDUCATION was effective for attitudes and beliefs	Inclusion	<p>PROJECT FRESH (also known as WIC MONEY INCENTIVES 20 project FRESH coupons that can only be used to buy eligible, locally grown, fresh, unprepared fruits and vegetables from authorized farmers, farmer's markets and roadside stands</p> <p>EDUCATION 20 minutes education session (project FRESH)</p> <p>WHAT: benefits of purchasing eligible, locally grown, fresh, unprepared fruits and vegetables at farmers' markets/ roadside stands. information on the seasonality, characteristics, and nutritional value of fresh fruits and vegetables.</p> <p>HOW: use of displays, exhibits, food demos, nutrition education activities, taste testing, handouts and group discussions</p>	2001	Community engagement, DIET Education session Money incentives PUBLIC INFORMATION: Use of displays, exhibits, taste testing	Healthy DIET, Community engagement	BS
Anderson JW, Brinkman-Kaglan VL, LeH, Wood CL. Relationship of weight loss to cardiovascular risk factors in obese individuals. J Am Coll Nutr. 1994;13: 256-261. PMID:8077574												
Anderson P, Scott E. The effect of general practitioners' advice to heavy drinking men. Br J Addict. 1992; 87: 891-900.	Heavy drinkers men		Advice after assessment VS usual care		RCT	Self reported reduced alcohol consumption	Inclusion	<p>The general practitioners received one 15-minute group training session and one 15-minute individual training session.</p> <p>GP advice lasted 10 minutes and consisted of feedback of the assessment interview and results of blood tests, information on the risks of excessive drinking, information on the benefits of drinking less, information on how the patient's weekly alcohol consumption compared with that of the general population using a histogram, and advice to reduce alcohol consumption to below 210 g per week.</p> <p>Advice was supplemented with a self-help booklet the "Cut Down on Drinking" booklet designed for the study</p>	1992	ALCOHOL Trained GP advice (one session: 10 minutes) Feedback on assessment of consumption Information of risk and on difference vs general population Reduce alcohol consumption to below 210 g per week (based on target) Intervention Patients in the control group received no advice from their general practitioner about drinking except at their own request. Patients randomized to the treatment group were asked at the end of the assessment interview to make an appointment with their own general practitioner. The components of the advice which have been described in more detail elsewhere, lasted 10 minutes and consisted of feedback of the assessment interview and results of blood tests, information on the risks of excessive drinking, information on the benefits of drinking less, information on how the patient's weekly alcohol consumption compared with that of the general population using a histogram, and advice to reduce alcohol consumption to below 210 g per week. Advice was supplemented with a self-help booklet the "Cut Down on Drinking" booklet designed for the study. The general practitioners received one 15-minute training session in a group and one 15-minute training session as an individual prior to their first patient interview. The practitioners were given the results of the assessment interview and a written summary of the intervention strategy for each patient. And printed material	Alcohol	BA
Anderson R, Wadden T, Bartlett S, Zemel B, et al. Effects of lifestyle activity vs structured aerobic exercise in obese women: A randomized trial. Journal of the American Medical Association. 1999;281(4):315-320.												
Annez JJ, Gorjao S. Changes in theory based psychological factors predict weight loss in women with class II obesity initiating supported exercise. J Obes. 2010;2010: 1-4	overweight and obese adults			no control	Before after non controlled trial	BMI, waist.	INCLUSION	<p>Exercise support based on social cognitive and self-efficacy theory and group-based nutrition information.</p> <p>Instruction in self-regulatory methods (eg, long and short-term goal setting, annotating incremental progress, cognitive restructuring, stimulus control, preparing for barriers, recovery from lapses)</p> <p>Exercise plans were based on each subject's preference and tolerance, but uniformly progressed from 20 minutes of cardiovascular exercise.</p> <p>The nutrition education segment consisted of 6 one-hour sessions over the initial three months.</p> <p>group format led by a wellness specialist: understanding macronutrients, developing a plan for meals and snacks, and self-management.</p>	2010	Exercise and DIET Computerized feedback monthly meeting group or individual	Diet PA	BS individual FUP, individual and groups
Annez JJ, Gorjao S. Relationship of exercise program participation with weight loss in adults with severe obesity: assessing psychologically based mediators. Southern Med J. 2010;103: 1119-1123. PMID:20890247												
Annez JJ, Whitaker AC. Psychological factors associated with weight loss in obese and severely obese women in a behavioral physical activity intervention. Health Educ Behav. 2010;37: 593-606. PMID:19225071												
Annez JJ. Relations of mood with body mass index changes in severely obese women enrolled in a supported physical activity treatment. Obes Facts. 2008;1: 88-92. PMID:20054167												
Annez JJ. Self-regulatory skills usage strengthens the relations of self-efficacy for improved eating, exercise, and weight in the severely obese: toward an explanatory model. Behav Med. 2011;37: 73-76. PMID:21895423												
Annez JJ. Supported exercise improves controlled eating and weight through its effects on psychological factors: extending a systematic research program toward treatment development. Penn J. 2012;16: 7-18. PMID:22529754												
Appel LJ, Champagne CM, Harsha DW, et al. Effects of comprehensive lifestyle modification on blood pressure control: Main results of the PREMIER clinical trial. JAMA. 2009;301(18):2203-2093.	810 adults with optimal BP, stage 1 hypertension (120-159 mm Hg systolic and 80-105 mm Hg diastolic), and not taking antihypertensive medications.	diet		yes	RCT	blood pressure	Inclusion	<p>An interventionist (dietitian) discussed nonpharmacological factors that affect BP and provided printed educational materials. A single 30-minute individual session. Counseling on behavior change was not provided. No further contact with the interventionist occurred until after completion of the data collection visits at 6 months.</p> <p>The intervention: increased consumption of fruits and vegetables (9-12 servings/d) and low-fat dairy products (2-3 servings/d), and reduced intake of saturated fat (6% and total fat (65% of energy).</p> <p>In the initial 6 months, there were 18 face-to-face intervention contacts (14 group meetings and 4 individual counseling sessions). Participants kept food diaries, recorded physical activity, and monitored calorie and sodium intake. Monitored intake of fruits, vegetables, and dairy products and monitored their intake of fat.</p>	2003	DIET: dietitian discussion and leaflet (individual 30 minutes). No further contact with dietitian.		BS

Appel LJ, Clark JM, Yeh HC, et al. Comparative effectiveness of weight-loss interventions in clinical practice. <i>N Engl J Med</i> 2011;365:1959-68	415 obese patients with at least one cardiovascular risk factor	ok	diet	yes	RCT	weight loss	Inclusion	remote sources of support but reflected common practice in efficacy trials by also providing face-to-face group and individual sessions conducted by health coaches. Participants were encouraged to log on to the study-specific Web site weekly; learning modules; opportunities for self-monitoring of weight, calorie intake, and exercise; and feedback on progress in these key behaviors. Received automated monthly e-mail messages summarizing his or her progress. Automated re-engagement e-mail messages were sent to participants who had not logged on to the Web site in the preceding 7 days. Weight-loss coaches encouraged participants to complete the learning modules and provided positive reinforcement of key behaviors, with an emphasis on self-monitoring of weight, calorie intake, and exercise. Individual sessions: 20 minutes long; group sessions: 90 minutes. Weekly contact with coaches during the first 3 months [nine group sessions and three individual sessions for participants receiving in-person support, and 12 weekly calls for those receiving only remote support]. During the next 3 months, three monthly contacts (one group session and two individual sessions), for the remainder of the study, two monthly contacts (one group session and one individual session, with the latter conducted either in person or by telephone). Coaches were trained before enrollment of the first participant and on a quarterly basis thereafter. The topics covered included behavioral theory and strategies, basic nutritional and exercise guidelines, motivational interviewing techniques, and study procedures, including use of the intervention Web site.	2011	WEIGHT LOSS: individual and group session Weekly contact with coaches. Web supports. Recal when not logged e-mail summarizing progress.	weight loss, diet + PA	BS + material + F UP. Individual and groups	
Applegate WB, Miller ST, Elam JT, et al. Nonpharmacologic intervention to reduce blood pressure in older patients with mild hypertension. <i>Arch Intern Med</i> 1992; 152(6):1162-1166. 12. Applegate WB, Miller ST, Elam JT, et al. Nonpharmacologic	persons aged 60 to 85 years with diastolic blood pressure of 85 to 100 mm Hg	ok	combining weight reduction, sodium restriction, and increased physical activity	yes	RCT	blood pressure	Inclusion	calories: weight loss goal was 4.5 kg. The women were encouraged to consume no less than 1200 calories per day and the men no less than 1500 calories per day Sodium reduction: 2400 mg Physical activity (primarily slow walking) to 120 minutes each week (four 30-minute sessions) participants to attend eight weekly group sessions and two individual sessions during the first 10 weeks and then four monthly group sessions for a total of 6 months' involvement. If cannot be a group session participants were seen individually.	1992	LDW calories diet: weight loss 4.5 kg Sodium reduction: 2400 mg Physical activity: 120 minutes each week (four 30-minute sessions) Group and individual sessions Recal when not logged Self-Monitoring diet and activity Dietitian	weight loss, diet + PA	BS + material + F UP. Individual and groups	
Arentze T, Borgers A. Assessing urban context-induced change in individual activity travel patterns: case study of new railway station. <i>Transport Res Rec</i> 2001; 1732: 47-52.													
Arroll 1995 (published data only) Arroll B, Beaglehole R. Salt restriction and physical activity in treated hypertensives. <i>New Zealand Medical Journal</i> 1995;108:266-8.	Community setting hypertensive patients		Exercise and sodium reduction		RCT	blood pressure	Inclusion	The participants in the two exercise subgroups were asked to brisk walk for 40 minutes (in two periods if they wished) three times per week. Equivalent activities such as golf, table tennis or swimming were accepted if there was a particular resistance to brisk walking. appropriate build up period if necessary Suggestions were provided in a written form for the doctor (appendix D). Patients were given a copy of the National Heart Foundation of New Zealand pamphlet "Exercise and your Heart" SALT: available 24 hour urine sample for estimation of the sodium content to give feedback. The salt intervention involved the participants being asked to decrease their use of: high salt foods; salt added at the table and salt added to cooking. 1) Sample one page which could be pinned on a refrigerator door 2) a general article about salt and salt restriction and 3) an in depth "encyclopedia" on food and salt Monitor and feedback at 3 months with urine sample	1995	ADVICE and written information counselling on exercise and SODIUM Moderate intensity PA: 3/week, brisk walking or other BA + written counsel from GP + written material	diet (exclusive sodium intake) + exercise	BA + material	
Ashley JM, St Jeor ST, Schrage JP, et al. Weight control in the physician's office. <i>Arch Intern Med</i> 2001;161:1599-1604.													
Aitken Graham C, John C, James B, Brog W, Gray Smith H. Increasing cycling through 'soft' measures (Travelsmart) - Perth, Western Australia. In: McClintock H, editor. Planning for cycling: principles, practice and solutions for urban planners. Cambridge, Woodhead, 2002													
Department for Planning and Infrastructure. South Perth large scale evaluation report. Perth: Government of Western Australia, 2001.													
Aiskainen T, Mirlunpalo S, Oja P, et al. Randomised, controlled walking trials in postmenopausal women: the minimum dose to improve aerobic fitness? <i>British Journal of Sports Medicine</i> 2002;36(3):189-194. doi: 10.1136/bjsm.36.3.189.													
Aiskainen, Mirlunpalo, Oja, M, Rinne, M, Pasanen, I, Vuori. Walking trials in postmenopausal women: effect of one vs two daily bouts on aerobic fitness. <i>Scand J Med Sci Sports</i> 2002, Pages 99-105													
Australian National Health and Medical Research Council Dietary Salt Study Management Committee. Effects of replacing sodium intake in subjects on a low sodium diet: a crossover study. <i>Clin Exp Hypertens</i> 1989; A11:1011-1024													
Australian National Health and Medical Research Council Dietary Salt Study Management Committee. Fall in blood pressure with modest reduction in dietary salt intake in mild hypertension. <i>Lancet</i> 1989; 1:399-402													
Aulita P, Hovell MF. Physical activity training for weight loss in Latinos: a controlled trial. <i>Int J Obes Relat Metab Disord</i> 1994;18:476-82.													
Azadbakht L, Mirmiran P, Esmailzadeh A et al. (2007) Better dietary adherence and weight maintenance achieved by a long term moderate-fat diet. <i>Br J Nutr</i> 97(2): 399-404.													
Azadbakht L, Mirmiran P, Esmailzadeh A, Azizi T, Azizi F. Beneficial effects of a Dietary Approaches to Stop Hypertension eating plan on features of the metabolic syndrome. <i>Diabetes Care</i> 2005;28(12): 2823-2831.	patients with metabolic syndrome	ok	a control diet, a low-calories diet and the DASH diet with reduced calories.	control diet	RCT	BP Weight loss, serum lipids, glycemic control. Relative to the control diet, the DASH diet resulted in higher HDL cholesterol (7 and 10 mg/dL), lower triglycerides (1.8 and 1.4 mg/dL), systolic blood pressure (BP) (-12 and -11 mmHg), diastolic blood pressure (-6 and -7 mmHg), weight (-1.6 and -1.4 kg), fasting blood glucose (FBG) (-1.5 and -8 mg/dL), and weight (-1.5kg)	Inclusion	DASH 500 kcal less than their caloric needs, which was increased in fruit, vegetables, and low fat dairy products and lower in saturated fat, total fat, and cholesterol, containing more whole grains and fewer refined grains, sweets, and red meat. The calcium, potassium, and magnesium of the DASH diet were higher. The DASH diet contained 2,400 mg Na per day. Lower consumption of meat and higher consumption of low fat dairies, vegetable, fruit, whole-grain cereals, and legumes distinguish between the DASH trial and the weight-reduction diet. The patients had been visited monthly, each session for a patient was 45-60 min. Individual and group sessions. They were in touch with the nutritionist by phone every day. Behavioral and psychological counseling was offered. The nutritionist explained the benefits of each diet for patients and told them if they continued these diets, related metabolic abnormalities might be controlled. group discussions were conducted monthly. First determined the caloric needs for each person -> The diets were individually prescribed using a calorie count system, and an exchange list was given to each patient for exchanging food items and counting the calories. SELF MONITORING: Subjects were asked to write food diaries -> used for feedback at monthly meeting.	2005	DIET: Low calories DASH diet nutritionist Individualized diet program based on caloric calculation. Behavior change program. Individual and group discussions monthly Self monitoring with food diaries and feedback by nutritionist	WEIGHT LOSS, DIET	BS + F UP. Individuals and groups.	
Baldacci S, Zanuso S, Cardelli P, Sakvi L, Bazzaro A, Pugliese L, et al. Effect of high- versus low-intensity supervised aerobic and resistance training on metabolic cardiovascular risk factors in type 2 diabetes: the Italian Diabetes and Exercise Study (IDES). <i>PLoS One</i> 2012;17(11):e99297													
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Baron JA, Gleason R, Crowe R, Mann JI. Preliminary trial of the effect of general practice based nutritional advice. <i>Br J Gen Pract</i> 1989 Apr;39(331):337-41.													

Blumenthal JA, Babyak MA, Hinderliter A, Watkins LL, Craighead L, Lin PH, et al. Effects of the DASH diet alone and in combination with exercise and weight loss on blood pressure and cardiovascular biomarkers in men and women with high blood pressure: the ENCORE study. <i>Archives of Internal Medicine</i> 2010;170(2):126-35	ENCORE study														
Bonfils 2013 published data only Bonfils PK, Taskiran M, Damgaard M, Goetze JP, Floyd AK, Funch-Jensen P, et al. The influence of high versus low sodium intake on blood pressure and hemodynamics in hypertensive patients with mild obesity. <i>Journal of Hypertension</i> 2013;31:2220-9.															
Booth, M., Bauman, A., Odenburg, B., Owen, N. and Magnus, P. (1992). Effects of national mass-media campaign on physical activity participation. <i>Health Promotion International</i> , 7, 241-247.	General population	Mass media campaign	National Australian campaign for exercise (mass media, commercials,	no	Before after uncontrolled trial	significant for self reported walking (from 70 to 74%) no differences for moderate and vigorous PA	Inclusion	The Heart Week 1990 campaign was an Australiawide, mass-communications campaign conducted by the National Heart Foundation of Australia: 'Exercise: Make It Part Of Your Day'. The campaign were designed to stimulate physically-inactive people to take part in some modest form of physical activity, emphasized the integration of walking into daily routines, paid television and radio advertisements, papers on the relationship between exercise and heart disease, posters, leaflets and stickers, T-shirts, publicity tours by experts in physical activity, and special scripting of two episodes of nationally-broadcast television soap operas. The television message was shown 2 065 times on television stations across the country; radio messages were played on 63 stations, and 202 newspaper articles appeared relating to the campaign. Each state capital city organized a major media launch for the campaign, with the theme centred on walking as a daily activity. In most cases, local politicians, sporting stars and other well known personalities were involved in the launches and the associated activities. Local level activities, such as 'community walking events' (Dowling, 1986) were also held in many regions.	1992	Mass media information campaign focused on one message Walking as daily routine Involving celebrities/politicians/already present local realities	Physical activity	PUBLIC CHANGES Mass media television, newspapers, BA			
Borhani NG, Tonascia J, Schlandt DG, Prinsas RJ, Jeffery JL. Recruitment in the Hypertension Prevention Trial. <i>Hypertension Prevention Trial Research Group. Controlled Clin Trials</i> 1989;10(3 Suppl):305-305.	HPT/41 healthy men and women aged 25 to 49 years, with diastolic blood pressures of 78 to 89 mm Hg.	advice	dietary counselling treatment groups	yes	RCT	Calories intervention is the only effective for BP and weight loss	Inclusion	STAFF: nutritionists and behavioral scientists acting as educators (teaching) and as behavioral counselors (maintenance of change) 3 counselling groups, from 7 to 22 individuals; group education sessions were held weekly for 10 weeks, and then every other week for the next month. Each session was devoted to a particular topic (details in text). Session begun with time for participants to practice skills related to the topic (e.g., planning a low-sodium menu), to sample foods, and to ask questions. Content: • translate the nutrient goals into a set of food selection principles that could be used by study participants: "do eat" and "Don't eat" rules (DETAILS in column 1) • list of recommended behavioral strategies: regular self-assessment, goal setting, dealing with family and friends, problem solving. • eating of commercial products (reduced use of pastries, cakes, and cookies. • Choose food without added cheese or cream sauce. • Increase use of green vegetables and fruits. • Use starchy vegetables and grains instead of meats. • Limit use of alcohol. • Use fruits and fruit juices as drinks, desserts, and in cooking. PRINTED MATERIAL: a food counter (list of the nutrient values for common food) and cookbook (recipes). SELF MONITORING: participants were asked to complete daily food records; to help participants become knowledgeable about their own diets MAINTENANCE PHASE: compliance counselling Group education sessions were held every other month and newsletters were mailed to participants in alternate months when group sessions were not held. The type of contact was "negotiated" with the participant, (phone, mail, face-to-face. ...) [Patients who missed a session were contacted: "missed visit contacts" -> individual counselling (either face-to-face or by telephone) was reserved for making up missed visits or dealing with special needs. Newsletters Each issue had a feature article devoted to a specific topic, accompanied by recipes that could be added to the HPT cookbook and local clinic announcements about upcoming meetings. Goals setting for next period -> breaking down large tasks into a series of smaller, more manageable steps. AWARDS: Regular distribution of tangible "tokens of accomplishment" (such as coffee cups, T-shirts, lunch bags, food cutting boards, and thermos bottles); points for attending a group session, points for completing a food record, etc. Social support: participants were encouraged to invite partners and other interested family members to group sessions. Emphasized the value of participants' contributions to scientific research and public health. Participants were kept informed of relevant new reports in the area of diet and hypertension. The importance of the HPT as a scientific project and of participants as collaborators was emphasized	1989	Intensive then maintenance Adapt to patient. Educational techniques used to teach dietary principles Behavioral strategies -> 3 counselling groups, from 7 to 22 individuals, weekly for 10 weeks, and then every other week for the next month. Self monitoring Awards. Social Support Emphasize the scientific importance of the trial. nutritionists and behavioral scientists	Diet	BS			
Boudelle KH, Jeffery RW, Murray D, Schmitz MBH. Using signs, artwork, and music to promote stair use in a public building. <i>Am J Public Health</i> . 2001;91:2004-2006.															
Brankstrom I, Weinshall L, Persson LU, et al. Changing social patterns of risk factors for cardiovascular disease in a Swedish community intervention program. <i>Int J Epidemiol</i> . 1993;22:1029-1037.															
Bredow C, Fiedling J, Hartman AA, Wilbur CS. Worksite health promotion: Its evolution and the Johnson & Johnson experience. <i>Prev Med</i> 1990;19:13-21.															

Serment d'Hippocrate

Au moment d'être admise à exercer la médecine, je promets et je jure d'être fidèle aux lois de l'honneur et de la probité.

Mon premier souci sera de rétablir, de préserver ou de promouvoir la santé dans tous ses éléments, physiques et mentaux, individuels et sociaux.

Je respecterai toutes les personnes, leur autonomie et leur volonté, sans aucune discrimination selon leur état ou leurs convictions. J'interviendrai pour les protéger si elles sont affaiblies, vulnérables ou menacées dans leur intégrité ou leur dignité. Même sous la contrainte, je ne ferai pas usage de mes connaissances contre les lois de l'humanité.

J'informerai les patients des décisions envisagées, de leurs raisons et de leurs conséquences. Je ne tromperai jamais leur confiance et n'exploiterai pas le pouvoir hérité des circonstances pour forcer les consciences.

Je donnerai mes soins à l'indigent et à quiconque me les demandera. Je ne me laisserai pas influencer par la soif du gain ou la recherche de la gloire.

Admise dans l'intimité des personnes, je tairai les secrets qui me seront confiés. Reçue à l'intérieur des maisons, je respecterai les secrets des foyers et ma conduite ne servira pas à corrompre les mœurs.

Je ferai tout pour soulager les souffrances. Je ne prolongerai pas abusivement les agonies. Je ne provoquerai jamais la mort délibérément.

Je préserverai l'indépendance nécessaire à l'accomplissement de ma mission. Je n'entreprendrai rien qui dépasse mes compétences. Je les entretiendrai et les perfectionnerai pour assurer au mieux les services qui me seront demandés.

J'apporterai mon aide à mes confrères ainsi qu'à leurs familles dans l'adversité.

Que les hommes et mes confrères m'accordent leur estime si je suis fidèle à mes promesses ; que je sois déshonorée et méprisée si j'y manque.

Serment prononcé par le Docteur GUERIN Cécile

Le 11 Avril 2019

Pour l'Ordre National des Médecins

Le Médecin

IMPRIME 4 – AUTORISATION D’IMPRIMER

THESE DE DOCTORAT EN MEDECINE

INTERNE

Madame / Monsieur Cécile Guerin
Inscrit-e en DES de Médecine Générale

Titre définitif de la thèse soutenue :

Interventions efficaces dans la prévention des maladies cardio-vasculaires et réalisables en soins primaires,
extraites de l’analyse des références (partie 3) issues des recommandations de bonne pratique étudiées dans le cadre
du projet international SPICES.

ACCORD DU PRESIDENT DU JURY DE THESE SUR L’IMPRESSION DE LA THESE

OUI :

La présente autorisation d’imprimer sa thèse est délivrée à l’interne susmentionné.

Brest, le 17 mars 2019

Le président du jury de thèse

Dr Jean Yves Le Resto
N° de matricule 29620
29 1 03200 0

Le directeur de l’UFR de médecine et des
sciences de la santé de Brest

C. BERTHOU

GUERIN (Cécile) – Interventions efficaces dans la prévention des maladies cardio-vasculaires et réalisables en soins primaires, extraites de l’analyse des références (partie 3) issues des recommandations de bonne pratique étudiées dans le cadre du projet international SPICES.

RESUME

Introduction : Les maladies cardio-vasculaires sont la première cause de mortalité mondiale. Plus de trois quarts des décès ont lieu dans des pays à revenu faible ou intermédiaire. La diminution des facteurs de risque cardio-vasculaire modifiables permet de réduire la morbidité et la mortalité cardio-vasculaires. Le projet international SPICES a pour but de mettre en place des stratégies innovantes de prévention des maladies cardio-vasculaires en soins primaires, dans 5 pays au profil socio-économique différent. L’objectif de ce travail était d’identifier parmi les références (partie 3) issues des Recommandations de Bonne Pratique (RBP) analysées dans le projet SPICES les interventions réalisables en soins primaires et efficaces dans la prévention des maladies cardio-vasculaires.

Méthode : L’accès aux articles permettait de retenir les interventions efficaces dans la prévention des maladies cardio-vasculaires et réalisables en soins primaires. Les critères d’exclusion étaient une population spécifique ou en prévention secondaire, un contexte de réalisation hospitalier, une intervention non efficace ou une absence d’intervention, une intervention médicamenteuse, un critère de jugement non courant.

Les critères d’inclusion étaient une population présentant des facteurs de risque cardiovasculaire, un contexte de mise en place au sein de la communauté, une intervention non médicamenteuse efficace, un critère de jugement d’usage courant.

Les références étaient ensuite classées par type d’intervention et la description précise de l’intervention était notée.

Résultats : Sur 150 références, 33 étaient inaccessibles, 70 ont été exclues, 47 ont été incluses. Parmi les références incluses 26 concernaient l’alimentation, 25 l’activité physique, 10 le tabagisme, 1 l’intoxication éthylique, 11 l’éducation à la santé et le mode de vie.

Conclusion : Il existe des interventions efficaces dans la diminution des facteurs de risque cardio-vasculaire modifiables et réalisables en soins primaires. La poursuite du projet SPICES permettra la mise en place d’interventions novatrices dans la prévention des maladies cardio-vasculaires en soins primaires.

MOTS CLEFS :

MALADIES CARDIOVASCULAIRES
PREVENTION CARDIOVASCULAIRE
PROJET SPICES

JURY :

Président : Pr LE RESTE Jean-Yves

Membres : Pr CHIRON Benoît

Dr LALANDE Sophie

Dr LE GOFF Delphine

Dr NABBE Patrice

DATE DE SOUTENANCE : 11 Avril 2019

ADRESSE DE L’AUTEUR :

32 rue Chanoine Kerbrat, Landerneau