

**Review of Public Health Research Projects
Financed under the Commission's Framework
Programmes for Health Research**

Subgroup 1

April 2013

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Preface

The next EU research and innovation framework programme 'Horizon 2020' will address a number of important societal challenges including health, demographic changes and well-being. To prepare the work in these areas, the Health Directorate of the European Commission's Research & Innovation Directorate General has set up an independent expert group. Its task was to take stock of the impacts, challenges and limitations of EU-funded public health research under the current and previous research framework programmes, and to identify priorities for future research. The experts, who worked in two subgroups from October 2012 to April 2013, represented a broad range of expertise and different regions of Europe.

Subgroup 1 assessed mainly the impact and the lessons learned from past framework programmes in the field of public health relevant for Horizon 2020.

Subgroup 2 was asked to address the following four questions: What should the thematic priorities for EU funded public health research under Horizon 2020 be? How to best structure European Public Health Research in the future? How to develop stronger links and synergies between EU funded research and national research activities, EU policy agendas and national policy agendas? How to improve the uptake of evidence generated from public health research in the development of public health policy?

This report summarises the recommendations from **Subgroup 1**.

The views expressed in this report is the sole responsibility of the expert group and do not necessarily reflect the views of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the information contained therein.

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Executive Summary

The next EU research and innovation framework programme 'Horizon 2020' will be required to address growing inequalities in health and important societal challenges, many of which stem from economic and fiscal policies. Subgroup 1 was asked to undertake a review of public health (PH) research to evaluate the impact of completed public health projects carried out under the 5th, 6th and 7th Framework programmes where final reports had been approved (n=70). The review was extended to include descriptive data from on-going projects (n=120). Particularly successful and under-performing projects were followed up with sixteen key informant interviews (KIs) who provided evidence of post-funding implementation of project outputs.

Impact: There were many examples of well-conducted projects that achieved intended outputs and impacts. Some projects achieved significant, additional unintended, impacts. None of the projects were terminated early or before completion. Only six of the seventy completed projects did not achieve the intended output. The majority of projects planned actions to inform policy makers, while a smaller number focused on producing outputs related to diagnostic tools. A few projects reported capacity building in the form of training of student and staff. KIs demonstrated important post-funding impacts and training not evident in the final reports including examples of transfer to practice and policy implementation, sustained pan-European, multidisciplinary and intersectoral networks and capacity building.

Knowledge transfer: There were many examples of well-conducted knowledge transfer with, for the 70 reviewed projects, large numbers of peer-reviewed articles (n=275), and other forms of publication and presentations at workshops and conferences. Five projects had not published in any category at the time of final reporting. KIs demonstrated that significant, additional post-funding knowledge transfer can occur.

Barriers and facilitators to uptake of evidence: Facilitators of uptake were active involvement of end-users in study design and implementation, pre-existing contacts between academic partners and end-users, well-constructed dissemination plans and stated intention to transfer to practice, and endorsement by politicians and policy makers. Thus, it may be deduced that barriers were: no involvement of end-users, poorly structured dissemination plans and operations, and lack of stated intention to transfer to practice and the absence of political support. Many project websites were not maintained post-project limiting access to outputs. Outputs are not routinely reviewed or validated by independent experts, which may limit uptake by policy making and implementation.

Descriptive data: The EU contribution to PH projects across the FPs, since 2000, was 425.5 Million Euro for 190 projects, including on-going projects. The amount of funding was significantly increased by FP7 (€ 31.4 M in FP5, € 29.6 in FP6 and € 364.5 in FP7). Research effort was evenly spread between Population Health and Health Systems Research in FP 5 and FP 6. In FP 7 Health System Research accounted for two thirds of the projects. Health promotion, improving health service delivery and governance were the most studied areas.

Coordinators from Northern and Western Europe, and participation of partners from Northern and Southern Europe predominated; Eastern European countries are underrepresented throughout. Universities and research centres predominate as coordinators and partners across FPs.

Under FP7 the number of female coordinators increased.

A minority of ongoing and completed studies (n=22) had the key word inequalities in the title. There were no studies evaluating the impact of policies on equity and redistribution and thus public health.

Recommendations for Horizon 2020 based on synthesis of projects and responses to key informant interview questions:

- **Recommendation 1:** Research on effect of economic policies on equity and inequalities in health, with specific reference to impact of changes in health and welfare provision and public health should be a priority.
- **Recommendation 2:** Public health research should be supported more strongly within the EU and nationally and must continue to be free of commercial conflicts.
- **Recommendation 3:** Priority setting must review and take into account the outcomes and recommendations of previous EU-funded public health research and focus, the European dimension of research as well as needs of Member States and global public health priorities.
- **Recommendation 4:** An international public health advisory board made up of public health research experts, user groups and health policy makers should be considered to assist DG RTD with priority-setting for calls and projects. It should have a strong governance structure.
- **Recommendation 5:** Public health capacity within DG RTD should be strengthened alongside strategies to facilitate greater synergy between it and DG SANCO, and other DGs, and National Research Institutes in setting priorities for research. A strong public health unit would facilitate project review, validation and knowledge transfer.
- **Recommendation 6:** Strategies should be developed to expand capacity for public health in southern and eastern countries and for those working with low and middle income countries outside of Europe.
- **Recommendation 7:** The active involvement of end users, robust dissemination plans with appropriate resources and mid-term reviews should be mandatory for all projects.
- **Recommendation 8:** A readily accessible, flexible, repository of outputs must be established and should incorporate long term follow-up.
- **Recommendation 9:** There is a need to develop a public health framework to evaluate EU funded research from the perspective of equity, universality and solidarity, and public health goals.

1. Introduction

1.1 Scope

The European Commission asked subgroup 1 to “Conduct an overall analysis of the impact of Community collaborative research activities in the field of public health carried out under the 5th Framework programme (FP5; 1998-2002) action 10 "Public-health and Health-services Research (including drug-related problems)" under the Quality of Life and Management of Living Resources programme; the 6th, Framework programme (FP6; 2003-2006) "Policy- Oriented Research – Specific Support to Policies (SSP)" under the thematic priority 1 "Life Sciences, Genomics & Biotechnology for Health" as well as under the third pillar “Optimising the delivery of health care to European citizens” under the Health theme of the current 7th Framework Programme (FP7; 2007-2013).”

Specifically we were asked to ‘focus on Past FP actions in the field of public health, their impacts, gaps in research and some of the lessons learnt in terms of knowledge translation. We were also asked to contribute to an overall analysis of the impact of Community collaborative research activities in the field of public health and draw lessons relevant for the future structuring of public health research under Horizon 2020 ‘

1.2 Analysis and Limitations

Analysis of impact was based on 70 projects completed by 31st July 2012, where final reports had been approved; this represented only 37% of the 190 funded projects. However, the review was extended to include descriptive data from the 120 on-going projects, all funded in FP7. The outputs described in interim and final reports and impact of the completed projects was assessed using projects objectives set out the Description of Work (annex I of the Grant Agreement) as the baseline. Collection of some data was hindered because reporting templates were not consistent within or across programmes. Extensive follow-up of the post-project impact of completed projects was not possible due to lack of time and we were unable to determine whether project deliverables were accessed and used by the relevant end users, nor could we examine possible effects on population health. Twelve key informant interviews were conducted to establish post-funding impact and outputs for their projects and a further four were conducted on EC officials from different DGs. Views on future priorities and structures were also gathered to assist the work of subgroup 2. However, the number of interviewees was small and may not be representative. The classification of projects was difficult as there is no validated typology in the literature. There is no framework for evaluating projects against broad public health principles. We used the Payback Framework¹ to describe impact (see below), this was developed for qualitative evaluation of a limited number of health services case studies, and not designed to be applicable to evaluating public health studies in relation to wider principles of equity and universality.

¹Buxton M and Hanney S. J. Health Serv. Res. Pol. (1996) 1:35-43

2. Methodology

2.1 Framework

The following areas were addressed:

1. Impact

Did projects deliver the results they promised?
Which research results/data have been generated in EU funded public health projects?
Have they been exploited /used (in particular for policy making)?
What worked well and what worked less well?
What has been the added value of EU funded public health research?

2. Knowledge transfer

How could the use of existing data be maximised?
What were the barriers to using evidence generated from EU public health research in development of public health policy?

3. Barriers and facilitators to implementation

What operational mechanisms within Framework Programs have facilitated use of results and where were the barriers?

4. Research Duplication

Has there been any overlap in the research activities? If so, how can this be avoided in the future?

5. Horizon 2020

What lessons are relevant for informing subgroup 2 deliberations on the future of public health research under Horizon 2020?

2.2 Sources of data

- Document review of completed projects: review of contracts, technical annexes, final and interim reports, activity and management reports, web-sites and other internet-available documents for 70 closed projects (22 FP5, 27 FP6, 21 FP7).
- Review of on-going projects: information from DG RTD data files, CORDIS (cordis.europa.eu), project and institutional web-sites and other internet available documents for 120 on-going FP 7 projects.
- Key informant interviews (12 project co-ordinators, 4 EC officers).

2.3 Data collection

2.3.1 Document review

The data collection form for the completed projects was adapted from the Payback Framework developed by Brunel University Health Economics Research Group (Buxton and Hanney 1996)² (Appendix I).

The dimensions used were:

- Knowledge production: peer reviewed publications, other publications, conference presentations, and patents.

²The Payback Framework is described in depth in Wooding et al. (2004). The Returns from Arthritis Research Volume 1: Approach, Analysis and Recommendations. RAND Europe, Cambridge, UK, MG-251-ARC. The data form was developed adapting the approach in the report "Primary Health Care Research Impact Project" Phase 2, PHC RIS (2009), <http://www-phcris.org.au/activities/rip>

- Research capacity building: courses, training and conferences; PhD students; temporary staff; staff development.
- Informing health policy: actions to inform policy makers, impact on change of EU/national policy.
- Health and health sector benefits: impact on health systems, on health service delivery, on health professionals, on end-user health.
- Economic and social impact: job creation, beneficial impact on SMEs, healthier workforce, implications for equity.
- Dissemination: identification of target groups, use of media.

Additional descriptive data collected both for completed and ongoing projects included:

- Framework programme, gender of coordinator, country of coordinating institution, countries of origin of other project participants, EU budgeted contribution, start and end years.
- Types of coordinating and other participating institutions. (*ad hoc* classification).
- Field of research, research methods used and target population groups in projects. Fields of research categories were adapted mostly from WHO classifications³.

Validation:

Prior to evaluation, the group of experts conducting the review of completed projects validated the data collection form by evaluating the same projects (one FP5, one FP6 and one FP7) and discussing the findings. The result of the discussion was a modified form (presented in Appendix I) and standardised assessment criteria. The criteria were refined and revised in working group meetings to facilitate collection of additional information.

2.3.2 Key Informant interviews

Framework

The results of the document review were used as a basis for selecting interviewees for key informant interviews and included notable successes and underperforming projects (Section 3.3.2). The semi-structured interviews were based on questions linked to the specific project and the period after the final report. The scope of the interviews was primarily to follow up the project and collect post-funding information about the impact.

Information collection

Interviews were conducted with 12 project coordinators and 4 EC officers. The following questions were addressed, related to their projects implementation and impact, in order to complete the missing information in the projects documents and to capture post-project impact:

- Knowledge production: number of peer-reviewed articles/citations/inclusion in systematic review or scientific guideline.
- Research capacity building: number of PhD and/or PhD student enrolments directly linked to the project.
- Uptake of results by policy makers and facilitators/barriers.
- Uptake of results by academics and facilitators/barriers.
- Impact on population/target group's health.
- Impact on health services with a particular focus on reducing inequalities and costs.

In addition, the 4 questions related to Horizon 2020 were asked:

- What should the future thematic priorities within Horizon 2020 be?
- How to better structure EU PH research in the future?
- How to develop stronger links and synergies between national and EU funded research?
- How to improve uptake of evidence by policy makers?

³<http://www.euro.who.int/en/what-we-do/health-topics>

3. Results: Document Review

3.1 Description of Project Portfolio

i) Field of research

Projects were categorised according to the main field of research (with limitations noted in the introduction to this report); some projects may have included elements pertinent to other fields (Table 1). In FP5 and FP6 effort was evenly spread between Population Health and Health Systems, while about 70% of FP7 projects were in Health Systems Research. Overall, Population Health projects represent 35% (Fig. 1), with Health promotion being more studied, whereas Health Systems Research represents 65% of projects (Fig. 2), with improving Health Service Delivery and Governance being the most studied areas. The lowest numbers of research projects were in the fields of Human Resources, Technologies, Information Systems, and in Secondary and Tertiary Prevention.

Table 1: Field of research for completed and ongoing projects – (n=190)

Framework Programmes						
Main Field	FP5		FP6		FP7-completed	
sub-field	N	%	N	%	N	%
Population Health						
Health promotion	5	23%	11	41%	2	10%
Disease prevention						
Primary	5	23%	2	7%	5	24%
Secondary	1	5%				
Tertiary			1	4%		
Population Health, total	11	50%	14	52%	7	33%
Health Systems Research						
Governance			3	11%	4	19%
Financing			3	11%	1	5%
Human resources	1	5%			1	5%
Information systems						
Technologies	3	14%	3	11%		
Service Delivery	7	32%	4	15%	8	38%
Health Systems Res., total	11	50%	13	48%	14	67%
Grand total	22	100%	27	100%	21	100%

* **Population health: health promotion** = "Health promotion is the process of enabling people to increase control over, and to improve their health." *WHO, Ottawa Charter 1986* (including healthy ageing); **disease prevention – I**="Primary prevention is directed towards preventing the initial occurrence of a disorder." *WHO, Health promotion Glossary, 1998* (including occupational health); **disease prevention – II** = 'Secondary prevention seeks to arrest or retard existing disease and its effects through early detection and appropriate treatment'. *WHO, Health promotion Glossary, 1998*; **disease prevention – III**="Tertiary prevention seeks to reduce the occurrence of relapses and the establishment of chronic conditions through, for example, effective rehabilitation." *WHO, Health promotion Glossary, 1998*.

Health systems research (adapted from *WHO classification and definitions*): **governance** (incl. benchmarking, marketisation, health research and networks) 'Health systems governance research supports decision makers at all level to strengthen their capacity to steer their health systems'; **financing** (including study of costs and efficiency) 'Research dealing with better and more equal mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system to ensure that all individuals have access to effective public health and personal health care'. *definition was adapted from WHO 2000*; **human resources** 'Research targeting health care employees'; **technologies** (incl. medicines, drug safety, HTA) 'Research aimed to invent or develop medical devices / medicines which are of good quality, safe and compatible with the settings in which they are used, as well as to ensure improved access, quality and safer use'; **information systems** (incl. improved access to databases like hospital or insurance companies); **service delivery** (incl. disease management, patient safety and medicine delivery, capacity building) 'Research aimed to improve the quality and safety of health care delivery as well as to increase patients' access so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, through the different levels and sites of care within the health system, and according to their needs throughout the life course'.

Figure 1: Sub-fields of Population Health for all evaluated projects (n=190)

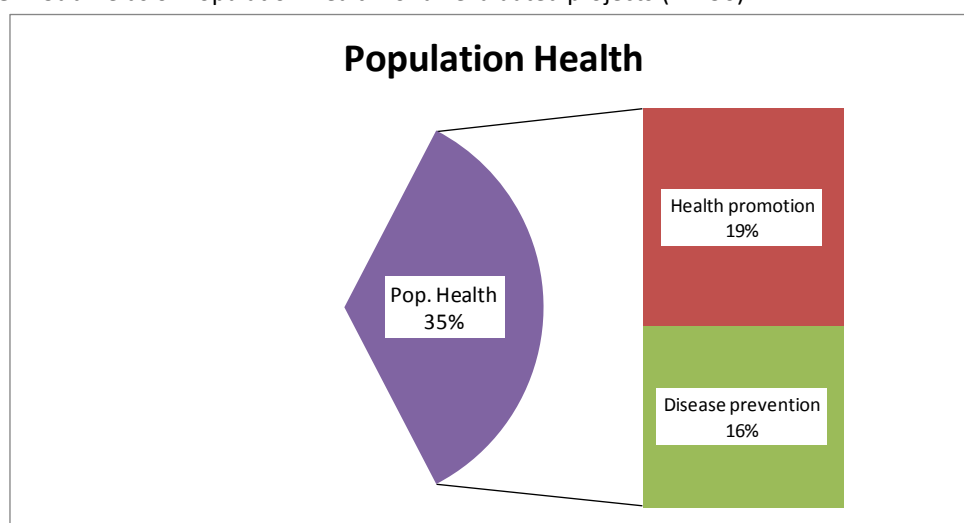
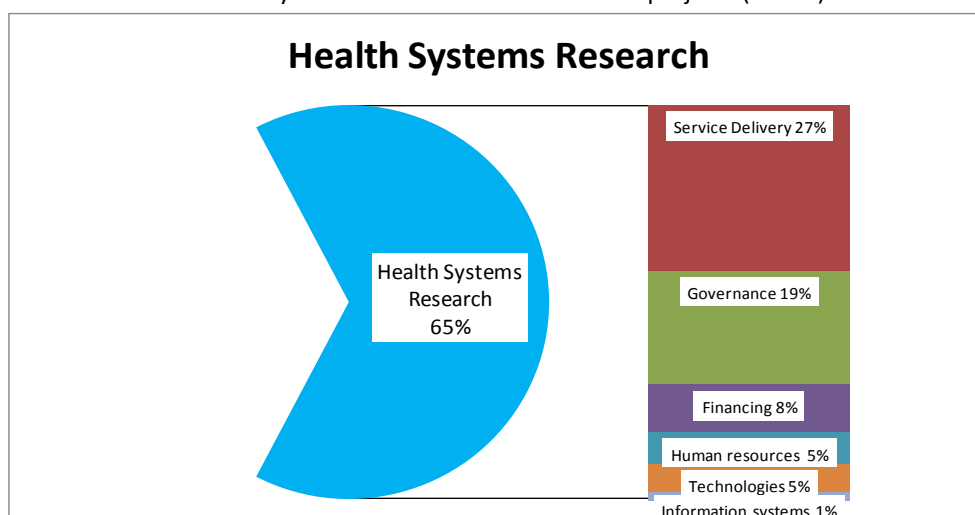


Figure 2: Sub-fields of Health Systems Research for all evaluated projects (n=190)



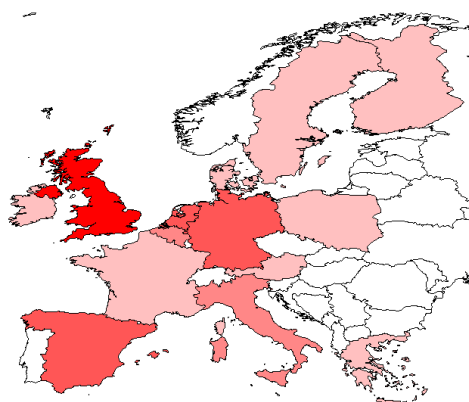
About 30% of projects focused on specific life stages: the elderly (14%), child health (7%), maternal and new-born health (6%); see table 1 in Appendix III.

About half of projects addressed issues related to specific population target subgroups, such as developing countries (21%; FP7 ongoing), people with chronic illnesses (10%), people with mental illnesses (7%); see table 2 in Appendix III.

ii) Project distribution across the EU by coordinating institution and country

When the crude numbers of coordinating institutions for each country in completed (n=70) and on-going (n=120) projects across framework programmes are mapped, a few countries stand out (Fig. 3: detailed data in Table 3 Appendix III). 60% of completed and on-going projects are coordinated by institutions from four countries: UK (44 projects), Netherlands (25 projects), Germany (23 projects) and Spain (21 projects).

Figure 3: Number of Coordinating Institutions by country for completed (n=70) and on-going projects. (n=120)

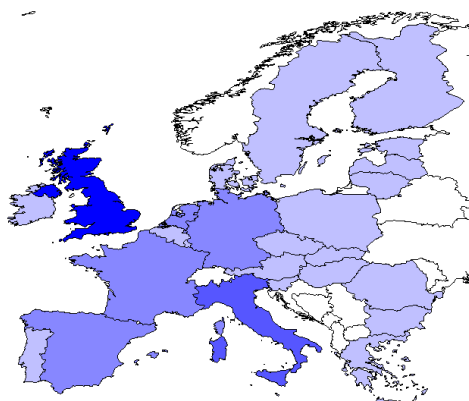


NOTES: Colour gradation based on blocks of 10 coordinating institutions;
5 Coordinating Institutions from non-Member States (MS) countries and 9 international organizations not shown.

iii) Project distribution across the EU for all participating institutions in completed projects

Figure 4 shows higher levels of participants from countries in Western (31%), Northern (29%) and Southern (25%) Europe (in Appendix III see Table 4 for individual countries and Table 5 for groupings). Participation for Eastern Europe slightly varied (FP5, 11%; FP6, 18%; FP7, 15%) across the Framework Programmes, but still remained very low. The participation of institutions in countries entering EU in 2004 and 2007 ranged from FP5, 11% to FP6 and FP7 (18% and 16% respectively) (also Table 5 Appendix III). Data for FP7 ongoing projects were not included because these data were not readily accessible.

Figure 4: Number of all participant institutions (for completed projects only, N=70) for MS only (1 from Cyprus is outside the map)

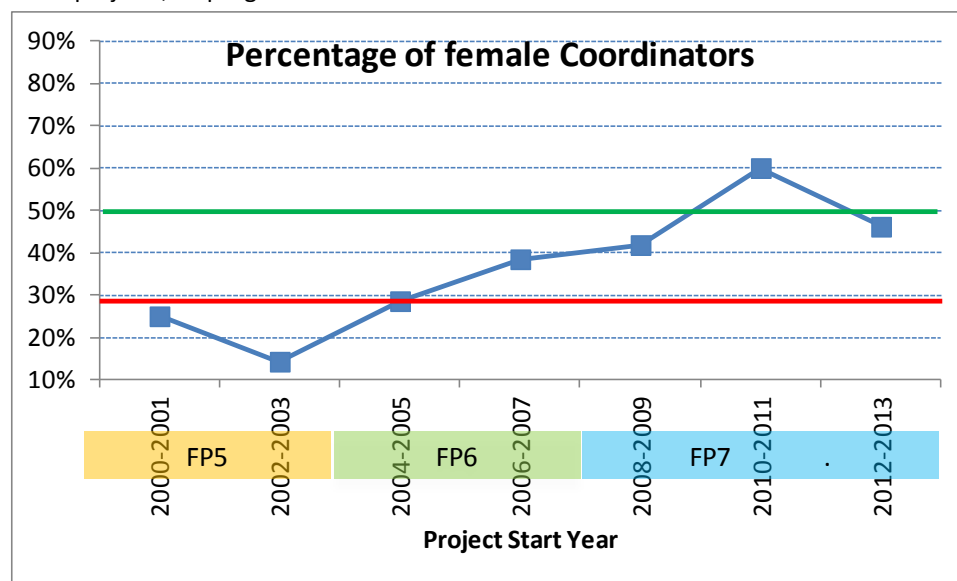


NOTES: Colour gradation based on blocks of 20 institutions;
83 participating institutions from non-MS and international bodies not included.

iv) Gender of project coordinators

Men accounted for 74% of Coordinators in completed projects (82% in FP5, 67% in FP6, 76% in FP7) For the 120 ongoing FP7 projects, the percentage of female project coordinators is 55%. The % female Coordinators by year of project start increases over time across the three FP programmes (Fig. 5).

Figure 5: Time series of percentage of female project Coordinators in Coordinating Institutions by start year of projects; FP programmes are indicated.



NOTE: green line indicates equal balance; red line indicates a percentage of 26-28% for females, previously reported in science settings (cfr. Quaglio et al. 2011⁴)

iv) Type of coordinating institutions in completed and ongoing projects

Academic institutions represent 59% of all coordinating institutions and, together with research centres, make up 83% of all projects. There were 7 (4%) private companies in a coordinating role (see Table 6 in Appendix III).

v) Type of all participating institutions in completed projects

Universities (34%) and research centres (24%) predominate. Clinical centres, foundations, authorities and the private sector account for 20%, 9%, 8% and 5%, respectively. The proportion of research centres and private institutions involved remained stable across framework programmes. Data for 120 ongoing FP7 projects were not available for this analysis. See Table 7 in Appendix III.

vi) EU funding

The amount of EU contribution to PH projects across the FPs, since 2000, was 425.5 Million Euro for 190 projects, including ongoing projects. The amount of funding had significantly increased by FP7 (€ 31.4 M in FP5, € 29.6 in FP6 and € 364.5 in FP7).

3.2 Impact Assessment

3.2.1 Knowledge production: peer reviewed publications, other publications, conference presentations, and patents

Table 2 provides a summary of reported publications and other production of knowledge, such as presentations in conferences. For the 70 completed projects reviewed, a total of 275 peer-reviewed publications were documented at the time of filing of final report, produced by 56% of projects. Additional 605 more other publications and 1646 presentations at meetings and conferences were reported by 74% and 69% of projects respectively. Numbers of publications by project are presented in Appendix II. Some projects reported publications by research group or department and not in

⁴Quaglio et al., The selection of experts evaluating health projects for the EU sixth Framework Programme (2011) Z. Gesundh. Wiss.-J. Public Health, 19(5):445-452

relation to the project. Reported peer-reviewed publications were verified where possible through internet searches. Key informant interviews revealed substantial post-project publication. It is likely that a larger number of publications might have been gathered if searching the publication databases within a lag time of 1-3 years after the end of project, as it has been observed at least for one project. Five out of 70 projects had not published in any category by the time of final report. Two patents were filed.

Table 2: Number of projects reporting production of peer-reviewed and other publications, and conference presentations for completed projects in FP5, FP6, and FP7 reported within the final report reporting period (n=70).

No. of peer-reviewed publications		None	From 1 to 5	More than 5
	FP5	7	11	4
	FP6	16	5	6
	FP7	8	6	7
	overall	31 (44%)	20 (29%)	19 (27%)
No. of other publications		None	From 1 to 10	More than 10
	FP5	6	11	5
	FP6	8	12	7
	FP7	4	13	4
	overall	18 (26%)	36 (51%)	16 (23%)
No. of conference presentations		None	From 1 to 10	More than 10
	FP5	4	11	7
	FP6	13	9	5
	FP7	5	6	10
	overall	22 (31%)	26 (37%)	22 (31%)

3.2.2 Research capacity building: courses, training, and conferences

Overall, 36% of projects organised conferences and/or workshops in line with project aims and results; the majority of projects presented at external conferences organised by others. Only 6 projects reported training of PhD students and 5 projects reported training/employment of additional post-docs but, since this information was not specifically requested across programmes, training opportunities in other projects cannot be discounted. Indeed, in post-project interviews some coordinators reported a high number of PhDs and Marie Curie Fellowships. Two projects reported staff training (Appendix II).

3.2.3 Informing health policy: actions to inform policy makers, impact on change of EU/national policy

Analysis of documents indicated that 76% of projects (n=53) planned actions to inform and engage policy makers. Table 3 shows that out of the 70 completed projects 61% provided outputs in the form of reports, models and predictive software; 26% of projects provided best practice recommendations and guidelines and 13% of completed projects were focused primarily on producing output and results concerning diagnostic tools, new treatment or conferences. Change to or evaluation of EU and/or national policy on public health was rarely stated as an intended project output. Outputs were primarily expressed in terms of provision of new knowledge, new tools and/or updated information. In several projects a change in policy was mooted as a possibility at the proposal stage but was not referred to in the final report.

Table 3: Main outputs of completed projects in FP5, FP6 and FP7

<i>Main output</i>	Framework programmes						Total	
	FP5		FP6		FP7			
	n	%	n	%	n	%	n	%
Evidence for informing policy: reports, models, predictive software	11	50%	17	63%	15	71%	43	61%
Evidence for informing policy: guidelines, best practice, recommendations, questionnaires	5	23%	8	30%	5	24%	18	26%
Diagnostic tool	4	18%	1	4%			5	7%
New treatment	2	9%					2	3%
Conference			1	4%	1	5%	2	3%
Total	22	100%	27	100%	21	100%	70	100%

3.2.4 Economic and social impact: job creation, beneficial impact on SMEs, healthier workforce, and implications for equity

Only 9 of the 70 completed projects (13%) provided data on job creation, namely research scientists and technicians, to assist with the conduct of research. One completed project (1%) stated beneficial impact on an SME. One project in FP5 was aimed at a healthier workforce.

Given the short timescale of projects it was not possible to look at length of employment or sustainability of employment and job security for project staff.

A sub-dimension for “implications for equity” had been added to the “Economic and Social Impact” dimension in the form (Appendix I and II). However, the group reviewing the project documents did not come across specific impacts expected or achieved, relating to addressing inequities or maintaining equity. Nevertheless, overall, 11 projects included addressing some inequality issues in the proposal (1 from FP5, 6 from FP6, 4 from the FP7 completed projects); among ongoing projects, where specific topics also mentioned inequalities, 11 projects seem to address inequality issues in title or abstract, but their results and impact are still to be evaluated as the projects are not completed.

3.2.5 Dissemination: identification of, and dissemination to, end users; use of media

Although the majority of consortia had well-prepared dissemination plans and used a wide range of measures (including press, TV, e-mail, leaflets, brochures, web-sites, presentations, etc.), dissemination was mainly passive with little active involvement of end users. In only 5 projects (7%) was there no evidence of dissemination or involvement of end user or target groups (Appendix II). Consortia varied in their efforts to disseminate outputs to policy makers and practitioners. Of the completed projects, 51 (73%) clearly identified the target groups for dissemination activities, whilst 12 (17%) did not explicitly state the target audience; 7 (10%) had not targeted a specific audience. We could not evaluate whether this made a difference to long-term policy impact. Five projects that did not list any publications did engage in some form of media dissemination. A few projects relied solely upon providing information and documents on a project website. On the basis of final reports, there was no clear-cut difference in the type and quality of dissemination across Framework Programmes.

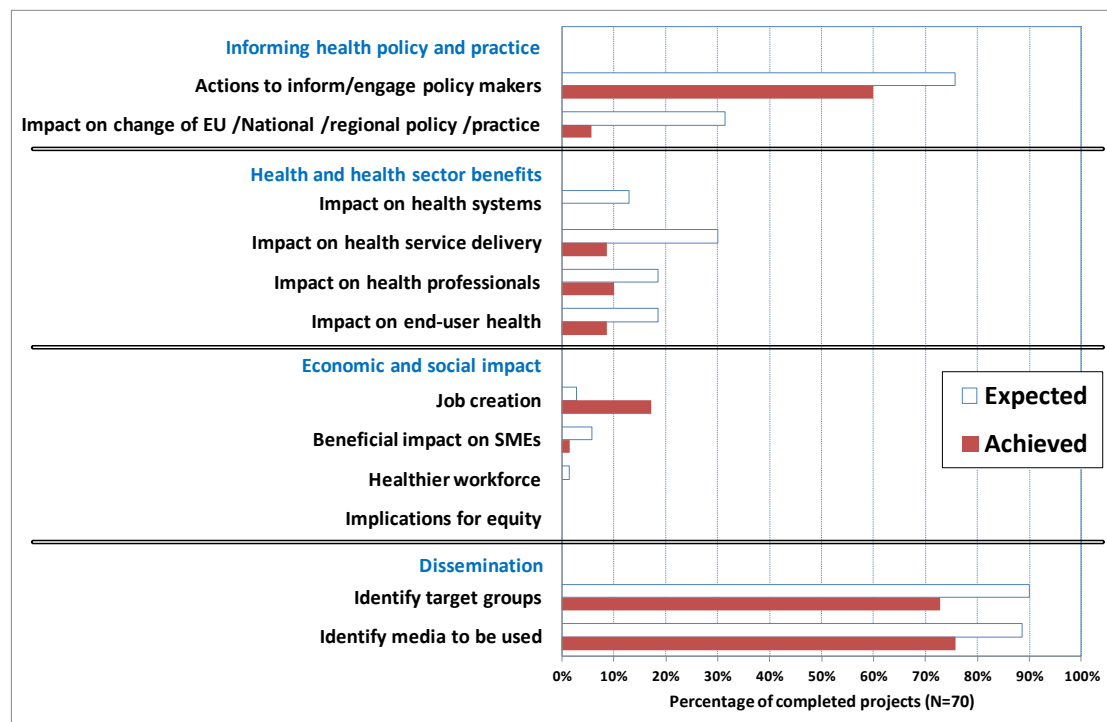
3.3 Overall impact

3.3.1 Outputs and impact elements in final reports

According to the Payback Framework model, as applied in previous instances to health services research, the intended outputs (including actions to inform policy makers; identification of, and dissemination to, end users using a variety of media) and impacts (including health benefits, economic impacts, change of policy or practice, or capacity building) were counted as expected and/or achieved, to complement data provided in the 6 dimensions of analysis (Appendix II). Figure 6 shows intended outputs/impacts (as per proposal) vs. reported outputs/impacts (as per final report and other documentation).

Out of 70 projects, 28 projects (40%) achieved or exceeded (8 projects, 11%) expectations. Projects that achieved intended outputs and impacts often had active end user involvement. Six projects (9%) substantially underperformed and 4 of these (6%) did not achieve any of the stated outputs or impacts. (Appendix II). Experts were not able to determine whether project results were accessed and used by the relevant end users.

Figure 6: Number of outputs/impacts intended and achieved, as reported at time of project end, in completed FP5, FP6 and FP7 projects (n=70)



3.3.2. Notable successes and underperformers

There were many examples of well-conducted impact projects with valuable outputs. Four examples are given.

- i) An intervention study on rehabilitation of respiratory disease patients produced 16 peer-reviewed papers, the coordinator was awarded a prestigious society award for the excellence of work conducted within the project and a national office was established in a participating country for the support of patients and families and the dissemination of

- information. An established scientific expert led the project with 12 partners, at a cost of around €1.6M.
- ii) An intervention study (RCT) on mental health demonstrated a significant reduction in suicide rate in adolescents over the period of intervention. The project was led by a scientist, had 12 partners, at a cost of around € 3M.
 - iii) A technology development project developed a new spinal endoscope for use in people with spinal cord injury; it was funded under research relating to persons with disabilities in FP5. Its cost was around € 1.2M.
 - iv) An observation study on tobacco pricing and control had a direct impact on policy making via WHO and Framework Convention on Tobacco Control. Furthermore, the model for trends in smoking prevalence was adapted for use in 15 Member States. Led by a scientist, 8 partners, cost around € 3M.

Only 6 of the 70 completed projects did not achieve the primary intended output. Of these, four projects were in the disability area (3 of these were related to building design and accessibility for disabled and 1 was related to increased employment of the disabled). Two projects in mental health under-performed: 1 was unable to recruit sufficient patients within the timeframe and the other failed to demonstrate the final product. The size and cost of the under-performing projects ranged from € 0.5 to 2M.

Successful and under-performing projects were used to follow up with key informant interviews.

4. Results: Key Informant Interviews

The interviews are presented in two parts; with reference to impact (4.1-4.6) and with reference to Expert sub group 2 questions (4.7)

4.1 Knowledge production

Usually projects had additional publications after filing the final reports, as detailed in Appendix IV. As an example, for a completed project from FP6 (Box 1), some papers are reported still being worked up for publication.

4.2 Research capacity building

Number of PhD and/or PhD student enrolments directly linked to the project. Six projects stated capacity building in terms of PhD research training that was not always apparent in the final report. See Appendix IV. The issue of more support to southern and eastern countries was raised as was working with low and middle income countries outside of Europe.

4.3 Uptake of results by policy makers and facilitators/barriers

All projects were associated with additional, post-funding impact, including transfer to practice of tools, recommendations, methodologies, action plans, policy implementation, standardisation of evaluation and consensus on aspects of clinical management. See Appendix IV.

KIs recognised the need for a central data repository on projects. "Requiring integration of all data produced in EU funded projects into central data banks, which have to become public domain after a while, will be an important step forward (and providing own budgets to build and administer them). Furthermore, all publications based on EU funding should become public domain, i.e. publishers should be forced to accept that without further costs. The structure and details of already funded studies (ongoing or completed) should be listed in a well searchable, comprehensive, and easily accessible data bank (like trial.gov)."

Also it was stated that there is need for more and better data on research programmes to ensure that there is no duplication with national research. "It would be extremely important to create a harmonized communication strategy and DG RTD and DG SANCO would disseminate the same messages to Member States. Key priorities should be set up at EC level by a high level coordination group. A joint project database should be set up by these 2 DGs."

Crucially it is important to recognise that researchers are themselves constricted and conflicted in the role they can play. It is hard for researchers enshrined in career priorities and the permanent competition for funds to take a holistic approach: "Researchers are cautious, they don't want a high political profile and many are candid and inexperienced and unaware of the high level of negotiation that it takes to change things. Self-censorship, self-interest and lack of understanding and lack of experience beset the community". "The orientation of researchers is not generally towards policy impact especially where academic output is critical criteria for success." "Research teams won't lobby the policy making process and support communities. For this reason alone, impact of research on policies is limited and evaluations based on core business of programme and are not reliable, people are biased and overly positive about their impact. Researchers are increasingly divorced from service and practical issues and are not doing enough practice and can't unite in an integrated manner."

4.4 Uptake of results by academics and facilitators/barriers

Seven of the projects stated significant uptake by academics in the form of creation of sustained (and expanded) networks of excellence, new grants, citations of research and publication and conference invitations. See Appendix IV.

4.5 Impact on population/target group's health

The European Disability Forum took into account policy recommendation arising from one project. Measures arising from another project have been used to evaluate health services in England, Australia and Uruguay to measure impact on health. In another project there was a significant rise in awareness of, and reduction in, the rate of adolescent suicide in a large intervention group. Outputs of another project have been used as part of the global effort on increased awareness of maternal outcomes and a project on tobacco pricing could have substantial implications through smoking prevalence reduction. See Appendix IV.

4.6 Impact on health services with a particular focus on reducing inequalities and costs

Although there were few responses to this question, all interviewees articulated a general view of the importance of the biosocial model over the medical model and the need to understand the impact of intersectoral policies on public health through multidisciplinary research. One interviewee summarised the concerns as follows: "policy focus on affordability and scarcity is taking place in a public health vacuum and without proper consideration of the evidence and impact, including intergenerational damage (damages accumulating to children and future generations) of current policies."

4.7 Questions related to Horizon 2020

(i) **What should the future thematic priorities within Horizon 2020 be?** In relation to public health capacity all interviewees stated that public health research is essential and should be supported more strongly in Horizon 2020 and that a stronger focus on equity and the biosocial was required.

According to one KI "Public Health Research was of no interest in the programme and it has been a fight to keep it in every framework programme: the only way to get round it was to link it to topical themes, e.g. Framework 4 social impact and aging, FP 5 PH 'added' to genomics FP6 etc." and according to another "Public Health has always been the orphan area"; "Very disease oriented advisors in the advisory group where public health wasn't their competence."

Two aspects were highlighted as potential strengths of DG RTD in setting priorities: the importance of tackling big issues and its ability to facilitate research evidence and researchers free from commercial conflicts. "We have an opportunity to create a new generation of identifiable leaders that aren't bought up by the pharmaceutical industry and commercially conflicted."
"Public health should not be lost to establish trivialities."

The tensions between DGs and their different responses to commercial and industry conflicts were illustrated using the example of DG SANCO Healthy Aging partnership where DG RTD is currently negotiating it into Horizon 2020. "the Healthy Aging partnership should not address aging health care from a technological perspective simply as a means of involving industry to produce more technological gadgets without understanding that the basis is care and integration of care into medical services or the need to deal with poverty and entitlements."

(ii) **How to better structure EU PH research in the future?** In relation to priority setting some interviewees stated that the process of setting priorities needs more reflection.

According to one interviewee, "Priorities are set by project officers who follow literature, workshops on topics and scientific officers who reflect about topics and respond to positive lobbying (mostly very helpful – e.g. through conferences). There are many channels of influence but no formal mechanism." In KI responses there was agreement that policy makers should be involved in research priorities but views on whether national research councils should be involved were mixed due to the possible strategic power and influence of some over others.

Another problem was a perception that research is too fragmented and piecemeal and some concern about being too reactive, "Problem for staff with being reactive, e.g. SARS drove everything out of the way". If something comes up then the manpower has to focus on the crisis and is diverted from other areas.

Some interviewees recommended having a structured advisory body to set vision and decide on priorities, "Need a stable set of people who understand what public health is about and not change themes after a few months. Need to organize a specific board and expert group (or something of the kind) to establish stability and influence decision making." "Suggest having a Board of public health researchers and influential top scientists in a group with other peers and responsible for setting the agenda and coming up with the decision and feedback to scientists in country. How to organise is difficult because what happens is the representatives who come to meetings and programme committee are technical experts or civil servants from public health ministries."

Another suggestion was to improve the pool of evaluators "People don't want to come as too much paper work, expertise lacking and not interested. So need to change that by having good priorities and good evaluators and be prepared to duly select and reject projects." "Future calls might use top institutions and then allow them to build a network necessary to "revalidate" public health – needs action from important key people in public health who set up a vision, the strategic research agenda - where are we going, what are the main topics and what should be done e.g. advise on four or five main lines of research action and focus on them to have an impact." On the other hand it was recognised that "We should not create a public health aristocracy or return to a feudal system of public health."

One KI within the EC stressed the unique position of DG RTD to set priorities, a view echoed by some of the PC. "DG RTD is in a unique position to make pure research which is free from the influence of the industry or political will. Thus, results can be a real evidence-based policy at the end." "DG RTD allows cross-sectoral approaches and builds bridges between DGs and gives more flexibility to work with several stakeholders. DG RTD is the only DG that allows this sort of innovation. It allows/facilitates the development of scientific networks and should be used to influence European social policy from a strong scientific base."

There was a strong consensus among interviewees that DG RTD needs to be strengthened with many advocating the creation of a public health unit within DG RTD with project officers who have strong backgrounds in public health and not only basic science. PCs thought that there was a need to redistribute resources internally to give more support to PH so that more project officers could be employed and give more support to dissemination and implementation.

In relation to the question of structuring public health research, one interviewee offered the advice that the concept of Networks of Excellence as a funding instrument should not be revisited. "Horizon 2020 is fixed and the mechanisms and instruments will be there (don't reopen debate and clash: be creative over priority setting and work within instruments that are on the table). Networks of excellence were killed in 6th FP - don't try to revive but if you want to recreate a large programme within a common view we need some common denominator."

(iii) How to develop stronger links and synergies between national and EU funded research? In relation to DGs working in synergy the following statements were made: "Public health research in DG RTD should be the leader and at the forefront of all intersectoral research areas i.e. ICT, (why is a "DG public health" not part of the tools for health) and why is public health constrained in informing information technology and bioengineering?" "The most important thing is that DG SANCO is ready to

discuss strategies with DG RTD during the planning phase to strengthen coherences and synergies and to lower duplications. Currently the work plan of DG SANCO is very close to DG RTD in the area of PH, so there are overlaps among the funded projects. To avoid this issue work could be divided as follows: DG RTD should create new knowledge as well as pilot testing and disseminating and evidence should be translated into actions and policies by DG SANCO. DG RTD is in a unique position to conduct pure research that is free from the influence of the industry or political will.”

Involving member states in the legitimization of EU research was also raised in one interview. “We need more real input from Member States and to serve the real needs of the Member States in a European setting and try to resolve an answer on a European basis, i.e. comparing and contrasting. We must organise contribution of member states to influence Horizon 2020 portfolio and get a feedback mechanism for evaluation. We need to draw attention of member states to public health research at European level. They have to be in agreement because they need to implement. The EU has only a tenth of money that national research bodies have and so needs to have a path-finding and setting role. Legitimation of effort is important and needs to prove itself to have sufficient impact on public health and quality and medical knowledge.”

(iv) How to improve uptake of evidence by policy makers? There was little response to this aspect but the issue of sustainability was raised, which may have implications with regard to continued support for pursuing important lines of investigation and facilitating transfer to practice. One interviewee stated “Give those projects and/or networks that are particularly effective and successful a chance to continue their work. 3-5 years are not enough while it takes a long time to build up a new network. It would be necessary to be able to get funding for follow-up.”

5. Conclusions and Recommendations

5.1 Summary of findings and conclusions

5.1.1 Portfolio- Descriptive data: Several features of funded projects across Framework Programmes deserve some consideration. Health Service Delivery, Governance and Health Promotion were the most studied areas. There has been a shift to more support for health services research. There was a paucity of research on interventions and policy evaluations to promote equity and reduce inequalities. There was no research into the impact of social and economic policies on equity and redistribution.

The gender balance has improved, as intended by Council of Europe, indicating a significant increase in the research leadership role of women in public health research.

Most projects have been coordinated by academic institutions; universities and research centres predominate as partners across framework programmes. In line with findings for other research programmes, project coordinators from Northern and Western Europe predominated with institutions from four countries coordinating almost 60% of all projects. There was a small increase in the participation of Eastern European countries after FP5.

Actions and measures to increase the participation and develop the capacity of other countries should be developed in southern and eastern countries and should also be mindful of the needs of Low and Middle Income Countries outside of Europe.

5.1.2 Impact: There were many examples of well-conducted projects with valuable outputs and several projects achieved significant, additional unintended, beneficial impacts. Furthermore, KI demonstrated post-funding impacts that were not evident in the final reports including examples of transfer to practice and policy implementation, sustained pan-European, multidisciplinary and intersectoral networks and capacity building. None of the projects reviewed were terminated early. Only 6 projects (9%) did not achieve the intended output on the basis of the final report. 76% of projects planned actions to inform and engage policy makers, 61% of all completed projects provided outputs in the form of reports, models and predictive software; 26% of projects provided best practice recommendations and guidelines and 13% of completed projects were focused primarily on producing outputs and results related to diagnostic tools or new treatments. 6 projects reported training of PhD students and 5 projects reported training/employment of additional post-docs but, since this information was not specifically requested across programmes, training opportunities in other projects cannot be discounted. Indeed, additional training of PhDs was identified through KIs.

5.1.3 Knowledge transfer: There were many examples of well-conducted knowledge transfer. Furthermore, KI demonstrated significant post-funding knowledge transfer that was not evident in the final reports. For the completed projects, a total of 275 peer-reviewed publications were documented, with 605 more other publications and 1646 presentations at meetings and conferences. Five projects had not published in any category at the time of final reporting. 36% of projects organised conferences and/or workshops to disseminate project aims and results and the majority of other projects presented at conferences organised by others.

5.1.4 Barriers and facilitators to uptake of evidence: Facilitators of uptake were found to be active involvement of end-users in the project, pre-existing contacts between consortia academic partners and end users, determined and enthusiastic dissemination to appropriate audiences in a variety of languages and stated intention to transfer to practice. Thus it may be deduced that barriers to uptake were no involvement of end users (wholly academic partnerships), poorly structured dissemination plans and operations and lack of stated intention to transfer to practice. Other barriers were the politicians and policy makers themselves. Many project websites were not maintained post project, thus limiting access to outputs. KIs recognised the need for central data repositories on projects. Outputs are not always reviewed or validated by independent experts before dissemination, which may limit uptake of evidence. Also, it was noted that in a small number of projects the disparity between public health systems and practice in different EU countries was a barrier to successful implementation of the proposed research and to the general utility of outputs. Furthermore, the impact group considered that the cost implications of research recommendations were not always

properly appreciated and could be a barrier to implementation. The involvement of policy makers in research priority setting was considered as a possible facilitator to implementation. However lack of political support is not a reason not to do research. In KI responses there was agreement that policy makers should be involved in research priorities but views on whether national research councils should be involved were mixed due to the possible strategic power and influence of some over others.

5.1.5 Research Duplication: There was little evidence of research duplication in the EU public health projects and, where there was some overlap, coordinators made appropriate effort to liaise and consult with relevant research projects. However, it was stated in KIs that there is need for more and better data on research programmes to ensure that there is no duplication with national research. "It would be extremely important to create a harmonized communication strategy and DG RTD and DG SANCO would disseminate the same messages to Member States. Key priorities should be set up at EC level by a high-level coordination group. A joint project database should be set up by these 2 DGs."

5.1.6 Lessons relevant for Horizon 2020 from key informant interviews:

(i) *What should the future thematic priorities within Horizon 2020 be?* In relation to public health capacity all interviewees stated that public health research is essential and should be supported more strongly in Horizon 2020, free of commercial interests. More consideration needs to be given to the impact of economic and fiscal policies on equity, welfare and public health, and health systems and equity.

(ii) *How to better structure EU PH research in the future?* Some interviewees stated that the process of setting priorities needs more/better reflection. Some interviewees recommended having a structured advisory body to set vision and decide on priorities, whilst not creating a public health 'aristocracy'. Another suggestion was to improve the pool of evaluators. A further suggestion was to have greater involvement of Member States in priority setting. All interviewees agreed that public health capacity within DG RTD should be strengthened: some proposed that there should be a public health unit within DG RTD with project officers who have strong backgrounds in public health and some thought that there was a need to redistribute resources internally to give more support to PH so that more project officers could be employed and give more support to dissemination and implementation. One interviewee offered that in relation to the structure concept of Networks of Excellence as a funding instrument should not be revisited in the new programme.

(iii) *How to develop stronger links and synergies between national and EU funded research?* There were clear overlaps between DGs and a clearer delineation of roles was suggested along the lines that DG RTD should create new knowledge as well as pilot testing and disseminating, whilst evidence should be translated into actions and policies by DG SANCO.

(iv) *How to improve uptake of evidence by policy makers?* There was little response to this aspect but the issue of continued funding of successful projects was raised, which may have implications with regard to continued support for pursuing important lines of investigation and facilitating transfer to practice.

5.2 Recommendations for Horizon 2020 based on synthesis of projects and responses to key informant interview questions:

- **Recommendation 1:** Research on effect of economic policies on equity and inequalities in health, with specific reference to impact of changes in health and welfare provision and public health should be a priority.
- **Recommendation 2:** Public health research should be supported more strongly within the EU and nationally and must continue to be free of commercial conflicts.
- **Recommendation 3:** Priority setting must review and take into account the outcomes and recommendations of previous EU-funded public health research and focus, the European dimension of research as well as needs of Member States and global public health priorities.

- **Recommendation 4:** An international public health advisory board made up of public health research experts, user groups and health policy makers should be considered to assist DG RTD with priority-setting for calls and projects. It should have a strong governance structure.
- **Recommendation 5:** Public health capacity within DG RTD should be strengthened alongside strategies to facilitate greater synergy between it and DG SANCO, and other DGs, and National Research Institutes in setting priorities for research. A strong public health unit would facilitate project review, validation and knowledge transfer.
- **Recommendation 6:** Strategies should be developed to expand capacity for public health in southern and eastern countries and for those working with low and middle income countries outside of Europe.
- **Recommendation 7:** The active involvement of end users, robust dissemination plans with appropriate resources and mid-term reviews should be mandatory for all projects.
- **Recommendation 8:** A readily accessible, flexible, repository of outputs must be established and should incorporate long term follow-up.
- **Recommendation 9:** There is a need to develop a public health framework to evaluate EU funded research from the perspective of equity, universality and solidarity, and public health goals.

Acknowledgements and authors' contributions

The impact review on documents was done by Susan Southon, Silvia Gabriela Scintee and Vincenzo Guardabasso. The interviews of key informants were undertaken by Allyson Pollock, Viktória Anna Kovács and Göran Tomson. Ongoing projects were analysed by Viktória Anna Kovács, Silvia Gabriela Scintee and Vincenzo Guardabasso. Data analysis and tables were prepared by Vincenzo Guardabasso. The report was drafted by Susan Southon, with analysis of Key Informant Interviews by Allyson Pollock with contributions from all others. All authors read and approved the final manuscript.

Appendix I – Form used for data gathering based on 6 dimensions in Payback Framework

		Info	notes
	Project number		
	Acronym		
	year completed		
	Total cost (M Euro, with decimals)		
	Field (1)		
	Main approach (2)		
	Main results (3)		
Knowledge Production	No. of peer-reviewed publications (4)		
	No. of other publications (5)		
	No. of conference presentations		
	No. of patents /Intellectual Properties		
Research capacity building	No. of courses/training/conferences		
	No. PhD students directly linked to project (6)		
	No. Postdocs or other temp staff (7)		
	Staff development (8)		
Informing health policy and practice	Actions to inform/engage policy makers (8b)		
	Impact on change of EU /National /regional policy /practice (9)		
Health and health sector benefits	Impact on health systems (10)		
	Impact on health service delivery (11)		
	Impact on health professionals (12)		
	Impact on end-user health (13)		
Economic and social impact	Job creation (14)		
	Beneficial impact on SMEs		
	Healthier workforce		
	Implications for equity		
Dissemination	Identify target groups		
	Identify media to be used		
	Other unexpected impacts/notes		
Totals	No. impacts expected	0	
	No. impacts achieved	0	

NOTES	COMMENTS
1 Publ Health res/mental health/disabilities/Ageing/CVD/Health Services/Occupat Health/Transplants/ChildHealth 2 survey/observational/intervention/Quasi-experiment/RCT/Technollevel/Diagnostic tool/Instrument 3 Database/guideline/toolkit/Policy/Best practice/New treatment/Evidence for policies 4 only if published or in press, as stated by report 5 other articles, books, chapters, 6 PhD students doing research for their PhD or not 7 Postdocs and temp staff 8 training to temp and/or perm staff 8b policy-makers members of the Consortium/via health committee/face-to-face meeting/presentation 9 new policy/changes in existing policy/adopt existing policy in other MSs/delete existing policy 10 impact on governance/financing/technologies/human resources 11 impact on cost reduction/increased effectiveness/improved allocation of resources 12 better trained workers/new guideline/new treatment 13 even if only those significantly involved by project 14 overall number of perm or temp positions created PLEASE use o (small O) for expected outcome; x (small X) for expected and achieved; ! for unexpected	

NOTE: some descriptions were integrated and revised in subsequent workgroup meetings

Appendix II – Document review scoring using agreed 6 dimensions

		Knowledge Production				Research capacity building				Informing health policy and practice	Health and health sector benefits				Economic and social impact				Dissemination					
FP	Project number	No. of peer-reviewed publications (4)	No. of other publications (5)	No. of conference presentations	No. of patents /Intellectual Properties	No. of courses/training/conferences	No. PhD students directly linked to project (6)	No. Postdocs or other temp staff (7)	Staff development (8)	Actions to inform/engage policy makers (8b) Impact on change of EU/National /regional policy /practice (9)	Impact on health systems (10)	Impact on health service delivery (11)	Impact on health professionals (12)	Impact on end-user health (13)	Job creation (14)	Beneficial impact on SMEs	Healthier workforce	Implications for equity	Identify target groups	Identify media to be used	Other unexpected impacts/notes	No. impacts expected	No. impacts achieved	% Expectations fulfilled
FP5	1	5	25	12		1				●									●	●		3	3	100
FP5	2	16	0	8	0					●				!					●		!	2	4	200
FP5	3	0	3	4		3				●									●	●		3	3	100
FP5	4	2	21	8						●									●	○		3	2	67
FP5	5	0	0	5						●									○	●		3	2	67
FP5	6	2	0	6						●									●	○		3	2	67
FP5	7	0	23	4		2				●									●	●		3	3	100
FP5	8	3	4							●									●	●		3	3	100
FP5	9	15	1	7																		0	0	
FP5	10		4	5	1							●		●	●	●				●		5	5	100
FP5	11	8	122	201						●									●	●		3	3	100
FP5	12			12							○	●	!	●					○	○		5	3	60
FP5	13	1	6										●						●	●		3	3	100
FP5	14		1	12		1				●	○	○								●		4	2	50
FP5	15	1	4	0		1				○			○						○	○		4	0	0
FP5	16	5		9		1				○		○	○	○		○			○	●		7	1	14
FP5	17	4				1						○							○	○		3	0	0
FP5	18	2	2	6						○		○		○					○	●		5	1	20
FP5	19	13	11	65	1							●							●	●		3	3	100
FP5	20	0	1	22						○	○	○	○						●			5	1	20
FP5	21	1	6	47										●					●	●		3	3	100
FP5	22	1	5	6		1		●	○				●	●					●	○		6	4	67
FP6	23	0	22	0		3				●									●	●		3	3	100
FP6	24	0	0	0						○									●	●		3	2	67
FP6	25	0	4	8						●									●	●		3	3	100
FP6	26	0	7	9						●									●	●		3	3	100
FP6	27	2	10	9						●	●								●			3	3	100
FP6	28	2	17	43		1				●									●			2	2	100
FP6	29	0	0	0		1				○									○	○		3	0	0
FP6	30	0	1	0		1				○									●	●		3	2	67
FP6	31	0	7	0						●									●	●		3	3	100
FP6	32	0	0	6						○									●			2	1	50
FP6	33		15	2		1				●									●	●		3	3	100
FP6	34	25	15							●									●	●		3	3	100

		Knowledge Production				Research capacity building				Informing health policy and practice		Health and health sector benefits				Economic and social impact				Dissemination																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Project number	No. of peer-reviewed publications (4)			No. of other publications (5)	No. of conference presentations			No. of patents /Intellectual Properties			No. of courses/training/conferences			No. PhD students directly linked to project (6)			No. Postdocs or other temp staff (7)			Staff development (8)			Actions to inform/engage policy makers (8b) Impact on change of EU/National /regional policy /practice (9)		Impact on health systems (10)		Impact on health service delivery (11)		Impact on health professionals (12)		Impact on end-user health (13)		Job creation (14)		Beneficial impact on SMEs		Healthier workforce		Implications for equity		Identify target groups		Identify media to be used		Other unexpected impacts/notes		No. impacts expected		No. impacts achieved		% Expectations fulfilled																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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FP6	39	2	2	1							●	○	○	○									●	●		6	3	50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
FP6	40	9	27								○	○											○	●		4	1	25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
FP6	41	1	2								●	○	○	○										●		5	2	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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FP7	67	6	24	79		1	6	27															○	●		2	1	50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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	Knowledge Production				Research capacity building				Informing health policy and practice			Health and health sector benefits				Economic and social impact				Dissemination		
FP	Project number																					
	No. of peer-reviewed publications (4)				No. of courses/training/conferences				Actions to inform/engage policy makers (8b)			Impact on health systems (10)				Job creation (14)				Identify target groups		
	No. of other publications (5)				No. PhD students directly linked to project (6)				Impact on change of EU/National /regional policy /practice (9)			Impact on health service delivery (11)				Beneficial impact on SMEs				Identify media to be used		
	No. of conference presentations				No. Postdocs or other temp staff (7)							Impact on health professionals (12)				Healthier workforce				Other unexpected impacts/notes		
	No. of patents /intellectual Properties				Staff development (8)							Impact on end-user health (13)				Implications for equity						
					expected				2			n/a				4				63		
% > 0	56	74	68	3	41	achieved	2	42	4	0	6	7	6	n/a	1	0	0	51	53			
					% fulfill.				100%	79%	18%	0%	29%	54%	46%	25%	0%	81%	85%			

Appendix III – Tables of Additional Descriptive Data

Table 1 – Specific life stages

	FP5		FP6		FP7-completed		FP7-ongoing		Total	%
Specific Life Stage	N	%	N	%	N	%	N	%		
Elderly & healthy aging	5	23%	2	7%	4	19%	15	13%	26	14%
Child health	3	14%					10	8%	13	7%
Maternal and New-born health	1	5%					10	8%	11	6%
Adolescents health	1	5%			1	5%	5	4%	7	4%
Sexual & Reproductive health							2	2%	2	1%
(general or not applicable)	12	55%	25	93%	16	76%	78	65%	131	69%
Total	22	100%	27	100%	21	100%	120	100%	190	100%

classification adapted from WHO <http://www.euro.who.int/en/what-we-do/health-topics>

Table 2 – Specific target groups

	FP5		FP6		FP7-completed		FP7-ongoing		Total	%
Specific target group	N	%	N	%	N	%	N	%		
Developing countries							39	33%	39	21%
Patient with chronic illness	3	14%			3	14%	13	11%	19	10%
Mentally ill	4	18%	2	7%	2	10%	6	5%	14	7%
Disabled			8	30%					8	4%
Health professionals	1	5%			1	5%	4	3%	6	3%
Migrants							3	3%	3	2%
Young at risk					1	5%	2	2%	3	2%
(general or not applicable)	14	64%	17	63%	14	67%	53	44%	98	52%
Total	22	100%	27	100%	21	100%	120	100%	190	100%

classification adapted from WHO <http://www.euro.who.int/en/what-we-do/health-topics>

Table 3 – Number and percentage of coordinating institution for each country for all projects
(completed FP5, FP6 and FP 7 projects n=70; ongoing FP7 projects n=120; total n=190)

Country of Coord. Institution	FP5		FP6		FP7-completed		FP7-ongoing		Total	%
	N	%	N	%	N	%	N	%		
UK	4	18%	8	30%	3	14%	29	24%	44	23%
Netherlands	2	9%	5	19%	2	10%	16	13%	25	13%
Germany	6	27%	2	7%	3	14%	12	10%	23	12%
Spain	1	5%	5	19%			15	13%	21	11%
Belgium	1	5%			1	5%	8	7%	10	5%
Italy	4	18%	1	4%			5	4%	10	5%
Sweden					1	5%	8	7%	9	5%
France	2	9%	1	4%	1	5%	3	3%	7	4%
Ireland					1	5%	6	5%	7	4%
Greece			1	4%	2	10%	3	3%	6	3%
Austria	1	5%	1	4%	1	5%	2	2%	5	3%
Finland	1	5%			1	5%	2	2%	4	2%
Denmark					1	5%	2	2%	3	2%
Poland					1	5%	1	1%	2	1%
Norway							3	3%	3	2%
Switzerland							2	2%	2	1%
Intl. Bodies			3	11%	3	14%	3	3%	9	5%
Total	22	100%	27	100%	21	100%	120	100%	190	100%

Table 4 – The number and percentage of participating institutions for each country for completed projects (n=70) across framework programmes

	Framework Programmes (completed projects)			
	FP5	FP6	FP7	Total
Country	n %	n %	n %	n %
Austria	6 2%	9 3%	6 3%	21 3%
Belgium	12 5%	7 2%	8 4%	27 4%
Bulgaria	1 <1%	2 1%	3 1%	6 1%
Cyprus			1 <1%	1 <1%
Czech R	5 2%	6 2%	3 1%	14 2%
Denmark	9 4%	8 3%	11 5%	28 4%
Estonia	3 1%	4 1%	2 1%	9 1%
Finland	7 3%	6 2%	6 3%	19 3%
France	24 10%	16 5%	12 6%	52 7%
Germany	20 8%	20 7%	15 7%	55 7%
Greece	9 4%	6 2%	8 4%	23 3%
Hungary	2 1%	7 2%	3 1%	12 2%
Ireland	2 1%	6 2%	3 1%	11 1%
Italy	31 13%	30 10%	13 6%	74 10%
Latvia		2 1%	2 1%	4 1%
Lithuania		3 1%		3 <1%
Luxembourg		1 <1%		1 <1%
Malta		1 <1%	1 <1%	2 <1%
Netherlands	15 6%	21 7%	18 9%	54 7%
Poland	10 4%	12 4%	6 3%	28 4%
Portugal	5 2%	4 1%	1 <1%	10 1%
Romania		1 0%	4 2%	5 1%
Slovakia	2 1%	3 1%	2 1%	7 1%
Slovenia	3 1%	7 2%	2 1%	12 2%
Spain	14 6%	27 9%	14 7%	55 7%
Sweden	10 4%	8 3%	9 4%	27 4%
UK	37 15%	45 15%	25 12%	107 14%
International	2 1%	20 7%	11 5%	33 4%
non MS	12 5%	24 8%	14 7%	50 7%
Total	241 100%	306 100%	203 100%	750 100%

International organizations are: CEPS, WGDF, WHO, EFNA, EPR, ARC, OSE, OBS, AIM, EHMA, IOFT/IASO, SQH, HOPE, EUPHA, EPHC-NRW, EPHA, MHE, Eurotransplant, ECSWPR, OPP(AGE), WONCA Trust, IOM, JRC, ECRIN, EHNET. Non-member states are: Bosnia, Croatia, Iceland, Israel, Japan, Norway, Palestine, Philippines, Switzerland, Turkey, USA

Table 5 – The number and percentage of participating institutions in completed FP5, FP6, FP7 projects (n=70) by region and EU-phases

	FP5		FP6		FP7-completed		Total	%
Region	N	%	N	%	N	%		
Northern EU ¹	65	29%	73	28%	54	30%	192	29%
Western EU ²	77	34%	74	28%	59	33%	210	31%
Eastern EU ³	26	11%	47	18%	27	15%	100	15%
Southern EU ⁴	59	26%	68	26%	38	21%	165	25%
Total	227	100%	262	100%	178	100%	667	100%
EU Phases	N	%	N	%	N	%		
EU-15 ⁵	201	89%	214	82%	149	84%	564	85%
New in EU-25 ⁶	25	11%	45	17%	22	12%	92	14%
New in EU-27 ⁷	1	<1%	3	1%	7	4%	11	2%
Total	227	100%	262	100%	178	100%	667	100%

¹Northern EU: Denmark, Finland, Ireland, Sweden, United Kingdom;

²Western EU: Austria, Belgium, France, Germany, Luxembourg, Netherlands;

³Eastern EU: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia;

⁴Southern EU: Cyprus, Greece, Italy, Malta, Portugal, Spain;

(adapted from UN Statistics Division: <http://unstats.un.org/unsd/methods/m49/m49regin.htm#europe> accessed on April 2, 2013).

⁵EU-15: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and UK.

⁶New in EU-25 (2004): Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

⁷New in EU-27 (2007): Bulgaria, Romania.

Table 6 – The numbers and percentages of types of coordinating institution for all available projects

type	Framework Programmes									
	FP5		FP6		FP7-completed		FP7-ongoing		Total	
	N	%	N	%	N	%	N	%	N	%
University/Higher Education	12	55%	12	44%	9	43%	79	66%	112	59%
Research Centre (public or non-profit)	3	14%	7	26%	7	33%	28	23%	45	24%
Clinical Setting, including social services and teaching hospitals	6	27%	1	4%	1	5%	3	3%	11	6%
Foundation/Not for profit			3	11%	2	10%	3	3%	8	4%
Public body			1	4%	1	5%	5	4%	7	4%
Private company, SME or Res. Centre - for profit	1	5%	3	11%	1	5%	2	2%	7	4%
Insurance agency										
Total	22	100%	27	100%	21	100%	120	100%	190	100%

Table 7 – The numbers and percentages of types of participating institutions in the completed projects only (n=70)

<i>type</i>	Framework Programmes					
	FP5		FP6		FP7-completed	
	N	%	N	%	N	%
University/Higher Education	67	28%	107	35%	83	41%
Research centre (public or non-profit)	51	21%	84	27%	46	23%
Clinical Setting, including social services and teaching hospitals	99	41%	23	8%	24	12%
Foundation/Not for profit	7	3%	36	12%	21	10%
Public body	5	2%	38	12%	18	9%
Private company, SME or Res. centre - for profit	11	5%	18	6%	10	5%
Insurance agency	1	<1%			1	1%
Total	241	100%	306	100%	203	100%

Appendix IV – Project Interviews- notes by interviewers

Box 1

Project A (FP6) undertook surveys on disability, findings were used to inform other Directorates General (SANCO, JUST, EMPL) and was catalyst for two other projects

1. Knowledge production: 29 publications, special issue with one journal and papers are still being worked up for publication. Led to a second and a third project under FP7 which included a national survey in Poland, Spain and Finland and ensuing Marie Curie fellowships.

2. Capacity Building: PhDs and Masters students: 8 in all (may be more?) and more than 20 PhDs from Marie Curie all over Europe doing the work.

3. Uptake of results.

Three products are used for public health.

- i) a tool used by Swiss government as national education resource for children
- ii) in Latin America (Brazil) WP coordinator is consulting and proposing matrix for developing education policies for children with disabilities
- iii) Chronic patients: too innovative to make a difference to target group's health and system couldn't absorb it. DG research should use it.
- iv) When the project finished it was presented to parliament research supporting policy. The project worked with WHO and the results were used by Commission and WHO at international level.
- v) Biosocial model was used in disability and the survey methods were adopted by EUROSTAT. Developing questions for survey had a big impact. DG RTD developed survey for a European survey of disability, this contribution is underrecognised as is its innovation.

4. Impact on population/target groups: First time DG RTD had actively worked with NGOs for disability and patients, organisations and people with disabilities. Horizon 2020 perspective includes full involvement of civil society in process of research.

European disability forum took into account policy recommendation

5. Impact on health services and inequalities and costs: no results on health services project as there would be need for an intersectoral approach.

Box 2

Project B was designed to investigate the quality of care and quality of life of people with disabilities in relation to developments in social policy and typical examples of service practice, and focused on the subjective experience of individuals with disabilities within these frameworks.

The project aims were to investigate the extent to which typical care and support options promote integrated living, social inclusion and service user participation; the role of attitudes to disability and persons with disabilities in relation to the delivery of care and service users' experience of social justice; and the impact of different service models and care practices on the quality of life of individuals with disabilities.

1. **Knowledge Production:** 18 Centres participated in the project from Europe, Asia, South America and Australasia, three international lead articles and 30 National level publications: (list provided)
2. **Capacity Building :** Six PhDs
3. **Uptake of research by policy makers:**
 - a) Uruguay introducing measures into Ministry's programmes as Director for Department of people with Disabilities
 - b) Used by WHO World Bank Model of disability
 - c) NHS disability services (Kent) England
 - d) Queensland Australia, having a direct service impact
 - e) Hungary got funding from European social fund to apply recommended measures and they are hoping to use it in standard practice
4. **Uptake of research by academics:** Other projects have followed on from collaborations, (a.o. WHO quality of living measures)

Over 1200 citations of the project-measures in key papers and used internationally

5. Impact on population target groups health

Measure has been used to evaluate services in England, Australia and Uruguay to measure impact on health. Major input from users i.e. people with intellectual and physical disabilities of different types in projects.

6. Impact on health services

Measures are being used in services to evaluate clinical impact fed through audit cycle and looking at cost effectiveness

Box 3

Project C set out to identify useful and practical approaches to the promotion and protection of mental health amongst existing wide diversity of theories, models and methods, to form the basis for a systematic multidimensional approach to promoting personal mental health and managing the risk factors that predispose distress and pathology.

1. Knowledge production:

10-15 scientific articles in Finnish, Estonian, German and Austrian journals

2. Capacity building:

Six PhDs

3. Uptake of results by policy makers:

Three policy seminars were held, two appearances in the European Parliament. Barrier was the lack of understanding about research by the policy makers

4. Uptake by academics:

Not measured,

5. Impact on population health:

No monitoring of this impact foreseen

6. Impact on health services:

particularity focusing on reducing inequalities and reduction of costs. The network continues to function, 1600 members have signed up. Some have used the tools made available.

Box 4

Project D (FP5) (Finished almost 10 years ago) delivered a unique cultural-adopted instrument to measure QALY in children (7-17 yrs). The questionnaire was pilot tested and also used in a representative survey of more than 10 000 children within the project period. The main strength of the project was having a network of well-experienced and highly motivated group of experts. This network is still live, however there is no funding for maintenance.

1. Knowledge production:

Around 15 peer reviewed articles, more than 100 citations in other articles about the used method.

2. Capacity building

Approximately 50 PhD students enrolled

3. Uptake by policy makers

The instrument that was developed is used by many other national and international surveys.

4. Uptake by academics

Questionnaire can be freely downloaded from the website and this has happened often during the last ten years.

5. Impact on population/target group's health

Only indirect impact

6. Impact on health systems/services

Not considered relevant for this project.

Box 5

Project E set out to develop and disseminate a conceptual framework consisting of a number of analytic tools, and cross-national comparative reports, to assist in:

- Formulating EU policy;
- Calculating the socio-economic impact of those policies and
- Making recommendations for innovative strategies to enhance the labour market integration of citizens with disabilities.

The analytic tools will be applied to existing strategies and methods aimed at integrating people with disabilities into the labour market to identify good practice and system inefficiencies, as a means of informing future system planning and implementation.

1. Knowledge production

No scientific publications

2. Capacity building

Four PhD students (law, economics, health sciences, psychology)

3. Uptake of results by policy makers

Some uptake of the Cost-benefit results and discovery of incongruence of the legislation by the government of the coordinating agency

4. Uptake by academics

Unknown

5. Impact on population/target group's health

Not much uptake as of today; Improvements come slowly

6. Impact on health systems

Has led to more tailor made strategies around vocational rehabilitation activities

Box 6

Project F aimed to develop and evaluate the effectiveness of 3 different methods designed to promote mental health and decrease the rate of suicide among adolescents. The RCT involved 12 000 subjects from 11 countries. Results were assessed after 3 and 12 months. Study was finished in 2011, so part of the data analysis is still going on. Network is still alive and continuously publishing the results.

1. Knowledge production

Number of peer-reviewed articles/citations/inclusion in systematic review or scientific guideline four published, two accepted

2. Capacity building

Number of PhD and/or PhD student enrolment directly linked to the project: Six PhD students were enrolled

3. Uptake of results by policy makers AND facilitators / barriers

Very successful at local level. At EU level – a meeting was organized with DG EDU to include the developed method in the curricula. The first impression was very positive, but the discussion is just begun. In addition, WHO is now preparing an action plan on mental health which is referring to this project. The fact that the coordinator institute is also a WHO Collaborating Centre was fostered this uptake.

4. Uptake of results by academics AND facilitators:

One of the tested interventions was training for health professionals to improve the recognition of adolescents at risk and also their therapy. This method should be extended but currently there are no resources to do it. On the other hand, cultural adaptation is needed; nevertheless the tool is available on 12 different languages.

5. Impact on population/target group's health

There was a significant raise in awareness and reduction in the rate of suicide compared to the control group. But this was only observed in the cohort, and intervention was not extended yet.

6. Impact on health systems/services with a particular attention on reducing inequalities AND costs (for instance cost reduction/increased effectiveness/improved allocation of resources)

Not applicable.

Box 7

Project G, developed the **infrastructure** for a European network of bipolar research designed to facilitate EU-wide studies.

1. Knowledge production:

The main outcome of the project is the development of a **common, standardized and relevant clinical set of evaluations and a common cognitive battery** to follow up cohort of bipolar patients.

Concretely, we have a common medical file in six languages (English, French, Italian, Spanish, German, and Norwegian) in a paper version and an electronic version (e-bipolar) in English to start collecting data in six European countries.

15 peer reviewed articles, nine symposia as a group,

2. Capacity building

Four PhD students so far

3. Uptake by policy makers

Continuous coordination of research on cost of mental health and stigma of mental disorders.

4. Uptake by academics and impact on population/target group's health

Continued existence of the network mental health experts.

Creation of a new scientific journal.

Common programme of psycho-education in two of the participating countries.

Better recognition of bipolar II disorders.

Box 8

Project H was a set of 5 linked sub-projects pertaining to post-partum haemorrhage (PPH) in 14 countries of Europe. The five subprojects were a survey of practice, a consensus statement, a randomized trial of a collector sac, and two websites, one for professionals and one for consumers.

1. Knowledge production: Number of peer-reviewed articles/citations/inclusion in systematic review or scientific guideline

BMJ (four), BJOG (two), EJOGBR

2. Capacity building: Number of PhD and/or PhD student enrolment directly linked to the project

Two PhDs (Be and Fr), one post-doc (China)

3. Uptake of results by policy makers AND facilitators / barriers

Yes, consensus regarding management of postpartum haemorrhage. Barriers include pharmaceutical companies that want to market their sometimes non effective products

4. Uptake of results by academics

Yes (through multichannel dissemination: teaching, international conferences, seminars in English, French and Chinese) AND facilitators (unclear what this is) / barriers commercial interests for collector sac (plastic bag to collect blood postpartum) in France and Italy.

5. Impact on population/target group's health

Yes as part of the global effort of increased awareness of maternal outcomes (meeting the target for MDG 5); coordinator invited as guest editor of a number of the French Journal of Perinatal Medicine on "meeting the target for MDGs 4 & 5"

6. Impact on health services with a particular attention on reducing inequalities AND costs

Results of survey and consensus have brought on more evidence based practice (anecdotal evidence), and results of trial has shown sac not useful in EU context. Costs decreased through both these results

Equity aspects taken into account.

For the survey it was done on a national or regional (France and Spain) basis

For the trial there was no difference in outcome between clusters, while some hospitals served very disadvantaged populations.

There is a possibility that the intervention did not work because the incidence of severe PPH was very low, and also because estimating blood loss in the control arm is an intervention in its own right. This means that there is probably place for a repeat trial in LMICs.

Box 9

Project I dealt with pricing policies and control of tobacco in Europe.

1. Knowledge Production: 15 published articles and 10 under review. Open access wasn't such a feature and five are in open access journals, it is a budget issue now.

2 Capacity Building: definitely four PhDs students

3. Uptake of Results by Policy makers:

Aim of project to produce pricing policy recommendations on taxation for tobacco. DG Taxes was involved in it and as an advisor. Handbook on taxation was produced and people from taxes attended. Negotiations on framework on tobacco convention. Went to negotiations on illicit trade in tobacco and EU has a complex agreement with tobacco industry. EU took industry to court over illicit smuggling, complex rules over when payments would be triggered and one recommendation was that they wouldn't do a deal over public health. EC didn't take recommendations on board as wanted industry to track smuggling. EC were influenced but won't know whether recommendations were taken up when directive is revised. One objective is to inform revision of directive. No data on smuggling other than what industry is funding and has contributed to. Industry commissioned KPMG and terms of reference are restrictive and reports are confidential so there are no independent reports on smuggling in Europe so project's recommendation is that investigation be taken out side of industry. Main purpose is increasing resources when DG taxes is revising directives and in between there are illicit protocol on illicit trade and framework convention. Did an econometric analysis looking at elasticity for every country in EU (50 years data in 11 countries and looked at what industry are doing about pricing, i.e. interfering, but varies according to market they are dealing with.) Corporate strategies appear to trump EC so difficult to enforce policy especially when response is at local level as difficult to formulate policy

4. Uptake of Results by academics: Citations leading to other projects - early days. Econometric analysis - tool kits for individual countries to do elasticity analysis e.g. Scotland. TAXING DG SANCO / Research to help advocates for tobacco control to deal with taxation part of the work. Big dearth of knowledge about tobacco taxation and did some modelling. Other project – used to suggest what would be best lines of progress for different countries; used in France, Netherlands and Ireland.

5. Impact on population health / target group's health: If price is most important then if price is right it reduces prevalence. Important counter balance to industry as industry always says price rise encourages illicit trade, confirmation that price rise always results in increase in revenue. If it succeeds and people smoke less then it won't cost them more. Elasticity is higher among the poor than the rich.

6. Impact on health services: Indirect through prevalence reductions,

Box 10

1 Knowledge Production: not easy to answer as project J (FP5) was looking at new ways of looking at rehab of respiratory diseases. At least 50 papers peer reviewed were published but it was a catalyst for other groups, so likely to be much more. 200 citations. 30-40 papers on topic

2. Capacity Building: between 40 and 50 PhD students - Italy, Greece, UK, Germany

3. Uptake of results by policy makers: results had a big impact to improve evaluation and rehabilitation of respiratory diseases and home care. Patient associations used results and several hospitals used the procedure

4. Uptake of results by academics: other grants, new methodologies and technologies and new research into home care. 40 groups around the world now working in different countries and continents Japan S America, etc. now following research promoted by project

5. Impact on population/ target group's health: see below

6. Impact on health services: new technologies developed which resulted in patents and a company inside project BPS. New devices, not big numbers for selling - suitable for improvement of knowledge in patients' better understanding of disease. Devices measuring lung function cost 100,000 Euros and sold 40 or 50 placed in wards. Measured movement of chest wall. Impact on cost. Chronic diseases - early diagnosis of exacerbation in order to prevent flare ups. Home monitoring is follow-up of project, new devices being developed - less than 1,000 Euros per patient at home.

Box 11

Project K wanted to provide decision support tools and policy initiatives in support of a universal design of buildings

1. Knowledge production

Findings led to creation of a new business line of residential houses for people with disabilities.

2. No PhDs

3. Uptake of results by policy makers

Unclear is the research led to practical consequences for builders; Academic nature of the work was not most adapted to requirements of building companies

4. Uptake by academics

Hardly any apart from some appreciation for the methodology papers

5. Uptake by health services

None

Box 12

Project L was to become the worldwide largest international collaborative multi-centre study aiming at early recognition and intervention in psychotic disorders, particularly schizophrenia.

1. Knowledge production

14 peer reviewed publications other still in preparation

2. Capacity building

At least three PhD's (was not monitored)

3. Uptake of results by policy makers

Changes in the Research appendix of DSM-V

4. Uptake of results by academics

Informed the design of subsequent long term prevention trial. Introduction of a prognostic index into psychiatry

5. Impact on Population/target group's health

No data yet

6. Impact on health systems/services with a particular attention on reduction inequalities and costs.

Strategy is been adopted, implementation is expected to reduce costs.

Appendix V – Acronyms used in the document

DG RTD	Directorate General for Research and Innovation
DG SANCO	Directorate General for Health and Consumers
DG JUST	Directorate General for Justice
DG EMPL	Directorate General for Employment, Social Affairs & Inclusion
PC	Project Coordinator
EC	European Commission
EU	European Union
FP	Framework Programme
KI	Key Informants
PH	Public Health
SME	Small and Medium Enterprise
WHO	World Health Organisation
MS	Member States of the European Union

Appendix VI – Members of the Independent Expert Group, Subgroup 1

- 1) **Vincenzo Guardabasso**, MD, Medical Officer, Teaching Hospital "Azienda Policlinico-Vittorio Emanuele", and Adjunct Professor of Medical Statistics, University of Catania, Italy
- 2) **Viktória Anna Kovács**, MD PhD, Deputy Head of the Department of Applied Nutrition in National Institute of Food and Nutrition Science, Budapest, Hungary
- 3) **Allyson Pollock**, Professor, Public Health Research and Policy, Queen Mary University of London, UK
- 4) **Silvia Gabriela Scintee**, MD, MSc, PhD, Deputy General Director of the National School of Public Health, Management and Professional Development Bucharest, Romania
- 5) **Susan Southon**, BSc, BEd, PhD, Professor of Nutrition. Retired. Formerly Principal Research Scientist and Head of Enterprise at the Institute of Food Research, Norwich, UK.
- 6) **Göran Tomson**, Professor of International Health Systems and Policy Research, Karolinska Institute, Sweden