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1. Introduction: reminder of the IMCA II dissemination objectives

The dissemination plan (Deliverable 4) had set the stage for the exploitation of the project results when the project is finished. The main objectives of the dissemination strategy were to:

- Share the results of the project among the IMCA network and have IMCA II partners involved at international or national level in the presentation of the project’s results via publication of papers in scientific journals or presentations during events such as congress the ERS and the EUPHA.

- Inform relevant stakeholders of the results of the IMCA I and IMCA II project and raise awareness about on the importance of the monitoring of COPD and asthma among health professionals, public health /health educational authorities and general population.

- Formulate public health priorities for COPD and asthma that reach health policy makers across Europe that will include specific priorities concerning the older population in particular.

- Inform public health professionals, epidemiologists and health authorities of the potential added value “e-Health” application and specific respiratory module for the implementation of health Examination surveys in Europe (see FEHES initiative supported by DG Sanco).
2. How relevant stakeholders have been reached / will be reached beyond the project’s end?

The type of stakeholders to be reached by the dissemination activities was rather broad, since IMCA II promoters do not wish to limit the dissemination of the project’s results to its main target, namely community of experts in public health and epidemiologists. Beyond this target, other key players had to be taken into account: for instance “ehealth” actors are directly interested by the potential of ICT for epidemiological studies’ implementation for instance. The results of the RHSE studies or of the data collected within WP4 or WP5 interest directly health authorities at national or regional levels across Europe but also health care providers, health care professionals (specialists and primary care professionals) and associations of patients that are directly concerned with the impact of COPD and asthma on health system, health professional daily practice and patient’s quality of life.

The following section synthesises how the different stakeholders targeted by IMCA II dissemination strategy have been reached so far.

2.1. Scientific community involved in specialized respiratory diseases studies or health examination surveys.

Obviously the outcomes of the IMCA II interest in the first place the academic community. Within the academic research, epidemiologists, respiratory physicians and public health researchers have constituted the most notable addressees of the project work and achievements. In order to reach this community to which the IMCA II partners belongs, IMCA II partners have:

a) managed to get the approval of scientific societies (The European Respiratory Society – ERS- and the European Union Public Health Association - EUPHA) for the organization of specific symposiums and workshops during the 2010 next ERS Congress in Barcelona (September 2010) and the EUPHA Congress in Amsterdam (November 2010). The detailed programmes of these symposium and workshops are presented in annex of this deliverables.

b) prepared and submitted abstracts for publications of papers in scientific journals. The list of abstracts submitted or papers under preparation or articles already published in scientific journal is presented in table 1 of the section 2 of this report.

Additionally, the IMCA II partners have targeted also the community of scientists/epidemiologists who are already working in Europe / Latin America on large international health surveys / health examination surveys on respiratory diseases such as ECRHS, ISAAC, BOLD, AIRE, etc. Here the fact that certain of the IMCA members already pertained to one or several of these network was of course an asset. The dissemination of the projects outcomes to these networks has been done through the direct mailing of the project’s deliverables of the project.
The results have also been made available to representatives scientific societies that can disseminate the results or provide advice for the submission of abstracts or scientific papers. The scientific societies targeted have been the European Respiratory Society (ERS), the European Public Health Association (EUPHA), the International Epidemiology Association (IEA), World Allergy Organization (WAO) and the American Thoracic Society (ATS).

Obviously, the organization of symposiums during congresses and publications in scientific reviews allow reaching other types of stakeholders beyond the mere academic community such as health policy makers, health care professionals, patients organizations, etc. Nonetheless, for reaching them, additional actions have been taken and will be further implemented in the next few months, as explained in the next sub sections.

2.2. Health care authorities, and national health policy makers in particular

Together with health the scientific community presented in point 2.1, health care authorities are the most important audience to be reached by the project. Actually, since the partners of the European projects mentioned in 2.1. are often health authorities or have been entrusted studies by health authorities dissemination actions towards these project’s leaders will indirectly reach the health policy makers listed underneath.

2.2.1. Within the international organizations

EU Member States have been informed at Ministerial level through all participating members of the Network of Competent Authorities via direct communication of the URL of the IMCA intranet where the deliverables are accessible. It is expected that this key target can contribute to further dissemination at national or international level.

For reaching the World Health Organization as a key organization developing new programmes for chronic diseases, IMCA II Steering Committee have channelled direct information on the projects developments and outcomes via Prof Nikolai Khaltaev and Eva Mantzourani and Giovanni Viegi active in the GARD initiative (WHO programme).

As agreed with Mrs Angela Rincon, the IMCA II former Project Officer at the Executive Agency for Health and Consumers, the HLCPH members are currently being informed about the project’s development and outcomes through communication on the intranet URL for getting access to the project’s results already available (Deliverables) and related publications. The persons targeted are:
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Belgium

Mr Edward GOTTESMAN Direction Générale de la Santé
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Sweden

Ms Irene NILSSON-CARLSSON Public Health Division
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Sweden

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United Kingdom

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Iceland

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3.2.2. At national or regional level

Communications on the results have been made face to face or via the targeted communication on the internet website with certain health policy makers at national level or also at regional level.

In Catalonia for instance, reports on the project have been transmitted to several key representatives of the Department of health in charge of public health policies on respiratory diseases: Joan Escarabill, Ricard Traseras, etc.

Similar actions have been taken in other countries.

2.3. Health care professionals

In the 10 sites involved in the HES feasibility studies and Respiratory Health Survey in the Elderly (RHSE) direct communication via leaflet and letters have been made to respiratory specialists, GPs and executives of Primary Health Care Centres. These documents presented the IMCA II project in short and bore the URL of the website. In total several hundreds of health care professionals have received written information about the IMCA Studies. Similarly the protocol of the HES Studies / RHSE studies has been sent to many health care professionals locally in the different sites.

Additionally, the IMCA II project has been publicly presented to health care professionals in regional primary care forums such as for instance the Primary care best initiatives awards of Barcelona.

Medical, Nursing and other health allied personnel have also been approached such as for instance in Spain:

- The Catalonian Association of Family and Community Nursing (Associació d’Infermeria familiar I Comunitaria de Catalunya).
- The Spanish Society of Family and Community Medicine (Sociedad Española de Medicina de Familia y Comunitaria - SEMFYC)

2.4. Patients and associations of patients

Associations of patients are interested parties that can contribute to the dissemination of IMCA II results and the promotion of its recommendations. There, several chronic patients’ associations have been contacted. In Spain for instance:

- Spanish Association of Chronic Obstructive Pulmonary Disease patients and relatives (Asociación Española de Pacientes y Familiares con Enfermedad Pulmonar Obstructiva Crónica -EPOC)
• Coalitation of Citizens with chronic diseases (Coalición de Ciudadanos con Enfermedades Crónicas)

2.5. Pharma research

The applications being improved and developed within the context of the project serve the purpose of supporting the acquisition of a deeper knowledge of the two conditions under study, namely asthma and COPD. In that respect, IMCA partners have communicated about the IMCA II developments and first results to several labs such as for instance GSK, Novartis or Esteve Teijin with the commitment to communicate them copies of the scientific papers derived from the project.

2.6. e-health and ICT for health industry and users

Since e-Health professional and health technology/innovation policy makers are potentially interested in ICT applications enabling the performance of epidemiological studies, several demonstrations of the application developed within IMCA II were done such as for instance:
- demo during the Continua Health Alliance held in Hotel Ars Barcelona in March 2009
- presentation to DG Information Society representatives iand experts n July 2009.

2.7. General public

Though, general public does not rank at the highest in the list of suitable target audiences of IMCA up to about 10 000 letters and/or flyers has been sent / distributed locally in the different sites to participants targeted by the studies, promoting the need to better the status of the respiratory health of the population. All the letters explained in a simple manner the purpose of the IMCA II project and mentioned the support of the European Commission.
4. Publications and oral presentations done or under preparation

The main efforts for the dissemination of the project resources have been focusing on the preparation of abstracts / manuscripts for publications on IMCA II outcomes in scientific journals or public presentations during seminars workshops, held during international congresses, but also during smaller (ad hoc) events.

As previously mentioned, these actions have been completed by direct distribution of the project’s reports to relevant public health stakeholders, coordinators / partners of projects /networks, communication on the internet website www.imca.cat (project’s news, main achievements, abstracts and publications) and the partners own websites and medias, and also face to face presentation of the project to relevant stakeholders.

4.1. Publications

Beginning of 2009, the IMCA publication strategy establish in 2008 has been debated again among partners in order on reach on agreement on the main relevant outcomes of the project to be presented to scientific reviews. Here, there was an overall consensus on the outcomes to be published and the discussions focused above all on the detailed list of abstracts to be submitted: scope of potential articles (avoid overlapping between them) and distribution of tasks among partners.

The following table 1 presents the publications derived from the project contemplated by the IMCA II partners while indicating:

1) their status: paper already published, abstracts already submitted / accepted, abstracts and manuscripts under preparation.

2) their scope: international or national

The list of authors involved / contemplated and date of publication/submission is also specified.
Table 1. IMCA II scientific publications

<table>
<thead>
<tr>
<th>AUTHORS</th>
<th>TITLE</th>
<th>SCOPE, STATUS</th>
<th>PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended and priority indicators for monitoring COPD and asthma in the European Union: results from the IMCA I project.</td>
<td>Enric Duran-Tauleria$^{1,2,3}$, Josep Mª Antó$^{2,3}$, Francesco Forastiere$^{4}$, Mina Gaga$^{5}$, Christer Janson$^{6}$, Deborah L. Jarvis$^{7}$, Josep Roca$^{8}$, Giovanni Viegi$^{9}$, Gudrun Weinmayr$^{10}$ and the IMCA II project group..</td>
<td>EU – International Manuscript under preparation, 1st abstract accepted by to the ERS 2009 congress in Vienna</td>
<td>IMCA II Steering Committee members</td>
</tr>
<tr>
<td>Wireless mobile technologies facilitates home-based data collection and processing in large epidemiological surveys: results from the IMCA-HES Feasibility Study. (to be extended to 5 additional HES feasibility studies sites included in 2009)</td>
<td>Enric Duran-Tauleria, Carlos Martinez-Gaitero, Felip Burgos, Josep Roca, Josep Mª Antó, Francesco Forastiere, Christer Janson, Giovanni Viegi and Gudrun Weinmayr, Per Bakke, Dorota Goreka, Mina Gaga, Denis Charpin, Teodor Popov on behalf of the IMCAII project group.</td>
<td>EU- International Manuscript under preparation, 1st abstract accepted by to the 2009 ERS congress in Vienna</td>
<td>10 IMCA II members involved in the feasibility studies</td>
</tr>
<tr>
<td>Respiratory epidemiology home survey in a general population sample of Central Italy: the IMCA2 Project feasibility study</td>
<td>Sarno G$^1$, Maio S$^1$, Baldacci S$^1$, Cerrai S$^1$, Angino A$^1$, Di Ped F$^1$, Viegi G$^{1,2}$</td>
<td>Italy Manuscript under preparation, 1st abstract accepted by to the 2009 ERS congress in Vienna</td>
<td>CNR</td>
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</tbody>
</table>
### Feasibility of using TIC and performing home measurements in epidemiological studies focused on respiratory diseases: results from the IMCA randomized controlled trial in Spain.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Status</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enric Duran-Tauleria, Carlos Martinez-Gaitero, Felip Burgos, Josep Roca, Josep Mª Antó,</td>
<td>Spain – Catalonia</td>
<td>Under preparation</td>
<td>FIMIM PAMEM HCPB</td>
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</table>

### Recommended respiratory module on questionnaires, measurements and technology to be included in future health examination surveys for respiratory diseases monitoring.

<table>
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<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Status</th>
<th>Collaboration</th>
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<tbody>
<tr>
<td>Ricardo Pistelli, Enric Duran-Tauleria, Carlos Martinez-Gaitero, Felip Burgos, Josep Roca, Josep Mª Antó, Francesco Forastiere, Christer Janson, Giovanni Viegi and Gudrun Weinmayr, Per Bakke, Dorota Goreka, Mina Gaga, Denis Charpin, Teodor Popov on behalf of the IMCAII project group.</td>
<td>EU</td>
<td>Under preparation</td>
<td>10 partners involved in the HES Study</td>
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</table>

### The IMCA project: achievements and new challenges in monitoring respiratory diseases in Europe.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Status</th>
<th>Collaboration</th>
</tr>
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<tbody>
<tr>
<td>Enric Duran-Tauleria¹,²,³, Josep Mª Antó²,³, Francesco Forastiere⁴, Mina Gaga⁵, Christer Janson⁶, Deborah L. Jarvis⁷, Josep Roca⁸, Giovanni Viegi⁹, Gudrun Weinmayr¹⁰ and the IMCA II project group.</td>
<td>EU</td>
<td>Editorial and general article to be submitted to the “European Respiratory Journal” in September 2010. This general paper and editorial on IMCA II is derived from the presentation made in the IMCA II symposium that will be held during on 22 September 2010 at the ERS congress in Barcelona</td>
<td>All IMCA II partners</td>
</tr>
<tr>
<td>Study Title</td>
<td>Authors</td>
<td>Sponsor/Status</td>
<td>Institution/Location</td>
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<tr>
<td>The IMCA Respiratory Health Survey in the Elderly protocol: rationale and methods. Planned for early 2010</td>
<td>Enric Duran-Tauleria(^{1,2,3}), Josep Mª Antó(^{2,3}), Francesco Forastiere(^4), Mina Gaga(^5), Christer Janson(^6), Deborah L. Jarvis(^7), Josep Roca(^8), Giovanni Viegi(^9), Gudrun Weinmayr(^10) and the IMCA II project group.</td>
<td>EU Abstract under preparation</td>
<td>Steering Committee members</td>
</tr>
<tr>
<td>Accelerometer-based physical activity in a large observational cohort – study protocol and design of the activity and function of the elderly in Ulm</td>
<td>Michael D Denkinger 1, Sebastian Franke 2*, Kilian Rapp 2, Gudrun Weinmayr 2, Enric Duran-Tauleria 3,4, Thorsten Nikolaus 1 and Richard Peter</td>
<td>Germany Published</td>
<td>Ulm University FIMIM</td>
</tr>
<tr>
<td>Influence of spirometry’s evaluation criterion on the estimation of COPD prevalence in the elderly</td>
<td>Carlos Martinez, Enric Duran-Tauleria, Carlos Martinez-Gaitero, Felip Burgos, Josep Roca, Josep Mª Antò,</td>
<td>Catalonia – EU Memoir derived from the RHSE study in Catalonia approved within the Master of Public Health of Pompeu Fabra University Manuscript under preparation for publication</td>
<td>PAM SL, FIMIM, HCPB</td>
</tr>
<tr>
<td>Prevalence of COPD and Asthma in the elderly in Europe: results of the IMCA II RHSE study</td>
<td>Enric Duran-Tauleria(^{1,2,3}), Josep Mª Antó(^{2,3}), Francesco Forastiere(^4), Mina Gaga(^5), Christer Janson(^6), Deborah L. Jarvis(^7), Josep Roca(^8), Giovanni Viegi(^9), Gudrun Weinmayr(^10) and the IMCA II project group.</td>
<td>EU Abstract under preparation</td>
<td>IMCA Steering committee members</td>
</tr>
<tr>
<td>COPD phenotypes in the elderly population across Europe</td>
<td>Francesco Forastiere, Enric Duran-Tauleria, Josep Mª Anto, Mina Gaga, Christer Janson, Deborah L. Jarvis, Josep Roca, Giovanni Viegi, Gudrun Weinmayr and the IMCA II project group.</td>
<td>EU</td>
<td>IMCA Steerriing committee members</td>
</tr>
<tr>
<td>Costs and burden of COPD and Asthma in the elderly population across Europe</td>
<td>Josep Roca, Enric Duran-Tauleria, Josep Mª Anto, Francesco Forastiere, Mina Gaga, Christer Janson, Deborah L. Jarvis, Josep Roca, Giovanni Viegi, Gudrun Weinmayr and the IMCA II project group.</td>
<td>EU</td>
<td>IMCA Steerriing committee members</td>
</tr>
<tr>
<td>Trends and geographical variations in asthma and COPD mortality across Europe.</td>
<td>Enric Duran-Tauleria, Josep Mª Anto, Francesco Forastiere, Mina Gaga, Christer Janson, Deborah L. Jarvis, Josep Roca, Giovanni Viegi, Gudrun Weinmayr and the IMCA II project group.</td>
<td>EU</td>
<td>All IMCA II partners</td>
</tr>
<tr>
<td>Trends and geographical variations in asthma and COPD hospital discharges across Europe.</td>
<td>Enric Duran-Tauleria, Josep Mª Anto, Francesco Forastiere, Mina Gaga, Christer Janson, Deborah L. Jarvis, Josep Roca, Giovanni Viegi, Gudrun Weinmayr and the IMCA II project group.</td>
<td>EU</td>
<td>All IMCA II partners</td>
</tr>
<tr>
<td>Economic burden of chronic obstructive</td>
<td>Thorarrin Girason, Enric Duran-Tauleria</td>
<td>EU</td>
<td>All IMCA II partners</td>
</tr>
</tbody>
</table>
pulmonary disease (COPD) and asthma in Europe: costs of drugs and health care interventions

Planned for 2010

Mª Anto²,³, Francesco Forastiere⁴, Mina Gaga⁵, Christer Janson⁶, Deborah L. Jarvis⁷, Josep Roca⁸, Giovanni Viegi⁹, Gudrun Weinmayr¹⁰ and the IMCA II project group.

Abstract under preparation

Public health priorities for monitoring COPD and Asthma across Europe

Deborah L. Jarvis, Enric Duran-Tauleria¹,²,³, Josep Mª Anto²,³, Francesco Forastiere⁴, Mina Gaga⁵, Christer Janson⁶,⁷, Josep Roca⁸, Giovanni Viegi⁹, Gudrun Weinmayr¹⁰ and the IMCA II project group.

All IMCA II partners

4.2. Public presentations

IMCA II’s partners have already presented the preliminary results of the IMCA II project during congresses and professional meetings, seminars and conferences as from 2008.

Additionally, further public presentations will be made beyond the project’s end date, in particular during:
- the 2010 European Respiratory Society congress in Barcelona (September 2010)
- the 2010 European Union Public Health Association congress in Amsterdam (November 2010)

The table underneath gives an overview of the scientific and professionals events during which IMCA II developments and outcomes have been presented over the last few years and will be presented by the end of 2010. It also indicates a list of ad hoc meetings organized on the IMCA results or to which the IMCA II project was communicated. It finally makes a recap of the II IMCA Group meeting that served for internal dissemination of the project’s outcome to all the IMCA II partners (indeed not all of them are involved in each of the IMCA II activities).

The details of the IMCA Symposiums scheduled in Barcelona and Amsterdam this year are in annex of this deliverable.
Table 2: plan for oral presentations of the IMCA II project during events

<table>
<thead>
<tr>
<th>TITLE, TYPE OF PRESENTATION, PLACE</th>
<th>SPEAKERS</th>
<th>SCOPE, STATUS</th>
<th>PARTICIPATION PARTNERS</th>
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<tbody>
<tr>
<td><strong>PRESENTATION DURING LARGE EVENTS (CONGRESSES, ETC)</strong></td>
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<tr>
<td>Poster: Recommended and priority indicators for monitoring COPD and asthma in the European Union: results from the IMCA I project</td>
<td>Enric Duran-Tauleria(^1,2,3), Josep M(^a) Antó(^2,3), Francesco Forastiere(^4), Mina Gaga(^5), Christer Janson(^6), Deborah L. Jarvis(^7), Josep Roca(^8), Giovanni Viegi(^9), Gudrun Weinmayr(^10) and the IMCA II project group..</td>
<td>Europe</td>
<td>Presented</td>
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<tr>
<td>ERS Congress Vienna. 14 September 2009</td>
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<td>Steering Committee members</td>
</tr>
<tr>
<td>Poster: Wireless mobile technologies facilitates home-based data collection and processing in large epidemiological surveys: results from the IMCA-HES Feasibility Study.</td>
<td>Enric Duran-Tauleria, Carlos Martinez-Gaitero, Felip Burgos, Josep Roca, Josep M(^a) Antó, Francesco Forastiere, Christer Janson, Giovanni Viegi and Gudrun Weinmayr on behalf of the IMCAII project group.</td>
<td>Europe</td>
<td>Presented</td>
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<tr>
<td>ERS Congress Vienna. 14 September 2009</td>
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<td></td>
<td>Steering Committee members</td>
</tr>
<tr>
<td>Poster: Respiratory epidemiology home survey in a general population sample of Central Italy: the IMCA II Project feasibility study</td>
<td>Sarno G(^1), Maio S(^1), Baldacci S(^1), Cerrai S(^1), Angino A(^1), Di Pedè F(^1), Viegi G(^1,2)</td>
<td>Italy – Europe</td>
<td>Presented</td>
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<tr>
<td>ERS Congress Vienna 14 Sept. 2009</td>
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<td>CNR</td>
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<tr>
<td>IMCA Symposium:</td>
<td>Enric Duran</td>
<td>Europe</td>
<td>All IMCA II partners</td>
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<tr>
<td>The IMCA project: achievements and new challenges in monitoring respiratory diseases in Europe.</td>
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<tr>
<td>ERS Congress Barcelona. 22 September 2010</td>
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<tr>
<td>IMCA Symposium:</td>
<td>F. Forastiere</td>
<td>Europe</td>
<td>Steering Committee members</td>
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<tr>
<td>The IMCA: Respiratory Health Survey in the elderly: methodological issues and preliminary results</td>
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<tr>
<td>ERS Congress Barcelona. 22 September 2010</td>
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<td>IMCA Symposium:</td>
<td>D. Jarvis</td>
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<td>IMCA recommendations on questionnaires and measurements to include in the future European Health Examination Survey (EHES)</td>
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<td>Monitoring the burden of asthma and COPD across Europe: major problems, challenges and priorities for the future</td>
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<td>IMCA Workshop: The IMCA – Respiratory Health Survey in the Elderly: methodological issues and preliminary results.</td>
<td>G.Weinmayr</td>
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<td>D.Jarvis</td>
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<td>testing and online data processing in large epidemiological surveys: results from</td>
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<td>the IMCA-HES Feasibility Study</td>
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<td>Local integrated care projects on COPD Seminar: presentation of the IMCA II project.</td>
<td>Enric Duran, Carlos Martinez with primary health care professionals, public health care trainees</td>
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<td>Wireless mobile technologies facilitate home-based data collection and processing</td>
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**IMCA II NETWORK MEETINGS**

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<td>3rd IMCA Group meeting: Barcelona, 12 – 13 March 2009</td>
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<td>Programme in Annex to this Deliverable</td>
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</table>
4. Promotion on the IMCA II developments and outcomes through the Internet

5.1. www.imca.cat

The IMCA II website has been maintained and updated all along the project through:

- Frequent news on the developments of the project
- Upload of the reports and deliverables submitted to the EC on its intranet for IMCA II internal and external partners.
- Upload on its public pages includes certain of the deliverables submitted to the EC that are of interest for external visitors and not confidential

The website included a web 2.0 application on its intranet on which Indicators have been uploaded by IMCA II partners. This application would migrate to the public webpage once IMCA publications are effective.
IMCA II intranet:

The intranet is going to be available only to IMCA II partners and other external collaborators contributing to the project already included in the initial proposal or incorporated in a later stage.

Under the Working Packages section, you will find a complete description of the working package, including work description, milestones, and deliverables. Also in each working package, you will find all working documents produced. There is a specific section that will provide an overview of the status of the deliverables to be produced and deadlines. This will help monitor the project management.

In the Agenda section, you will find all meetings agenda and also the minutes attached to each agenda.

In the Annual Reports section, you will find the documents and all the final report required and related to the contract.

[Image of IMCA intranet interface]
5. Conclusion.

Dissemination activities have mainly focussed on the preparation of publication and oral publication on the project’s development and outcomes towards the (academic) community of health respiratory epidemiologists and clinicians on the one hand and to the community of the public health policy makers and experts on the other hand. Table 1 and 2 of this report give an overview of the work done in order to reach this main target. The organization of a symposium during the European Respiratory Society congress in Barcelona in September 2010 and of a workshop at the EU Public Health Association Congress in Amsterdam in November 2010 reflect this priority, as well as the preparation of abstract and manuscripts under submission to scientific journals.

At the same time, as illustrated in section 2 of this report, IMCA partners have also dedicated significant efforts to reach other relevant stakeholders: international health organizations and forum, local / national health authorities, health professionals, laboratories, patients and citizens.
ANNEXES

- Abstracts accepted for the EUPHA Congress
- Programme of the Symposium in Barcelona
- Programme of the IMCA II final meeting held in Barcelona
- IMCA II leaflet
EUPHA Workshop Proposal  
10-13 November 2010 (Amsterdam, The Netherlands)

Workshop abstract

**Title:** Monitoring chronic respiratory diseases in Europe: what we know, new challenges and new opportunities for public health intervention.

**Abstract Body:** Obstructive lung diseases such as COPD and asthma are the most frequent causes of respiratory ill health covering all ages and producing a substantial and growing diseases burden worldwide. Despite the recognized need to monitor the epidemiology, clinical management and outcomes of the respiratory conditions at all ages at national and European level, the information available at present is still very limited. In order to firstly identify the key information necessary to monitor chronic respiratory diseases (CRD), the IMCA I project set up a panel of specialists in respiratory medicine, public health, epidemiology and agreed on a set of indicators to be included in the DG SANCO ECHI Group Framework. The assessment of data sources soon revealed the important limitations of the data coming from large international research studies and also routinely collected databases. Within the context of the IMCA II project three major efforts have been made. First, the information coming from research or routine data bases in Europe have been summarized and identified its strengths and limitations. Second, through the IMCA-HES Feasibility study the feasibility of using of new ICT tools to implement large epidemiological studies or surveys, perform home based measurements including spirometry and monitor online quality data collection have been assessed. Third, due to the lack of information on CRD in the elderly population the IMCA-Respiratory Health Survey in the Elderly was successfully implemented using the technological tools previously tested. Finally, the IMCA II project confirmed that European nations lack of a standardized system to compare the burden of CRD and to evaluate the impact of preventive strategies and clinical management on health outcomes. In order to overcome the lack of information and improve respiratory health monitoring a specific module to be included in the future European Health Examination (EHES) has been recommended. This workshop bring the opportunity to share the experience of the IMCA project with public health professionals and explore future initiative for health information developments and public health interventions in the field of respiratory diseases.

**Chairs:** E. Duran-Tauleria (Barcelona, Spain)\(^1,2\), I. Nagyova (Kosice, Slovak Republic)\(^3\).
Abstract 1

Title: The IMCA project: achievements and new challenges in monitoring respiratory diseases in Europe.

Presenting author: Giovanni Viegi.


Introduction: European nations lack a standardised system to compare the burden of chronic respiratory diseases (CRD) and to evaluate the impact of preventive strategies and clinical management on health outcomes. Objective: To agree a set of indicators to monitor major CRD in the EU suitable for inclusion in the DG SANCO European Community Health Indicators Project. Methods: For asthma and COPD a panel of specialists in respiratory medicine, public health and epidemiology constructed a list of indicators according to the DG SANCO ECHI Group Framework. Following a literature review this list was modified into four main groups: a) demography and socio-economic, b) health status, c) determinants of health and d) health systems. For each indicator, the rationale, aims, possible data sources, data quality, methods to be used for data collection, data presentation, potential use, consistency at international level and priority was evaluated. Indicators were then prioritised. Results: A total of 262 indicators were proposed for COPD and asthma. The top 4 indicators for COPD were: prevalence of physician diagnosed COPD, prevalence of smoking, hospital admissions and age-specific death rate. For asthma they were: prevalence of physician diagnosed asthma, prevalence of wheeze, prevalence of asthma attacks and hospital admission rates. For many
nations in the EU this information is still not ready available. See details at www.imca.cat.

Conclusions: Across the EU, routine health information systems and nationally based health examination surveys should aim to obtain data to generate these indicators.

Supported by DG SANCO (S12.328106)

Characters count (without spaces): 2336

Abstract 2

Title: The IMCA – Respiratory Health Survey in the Elderly: methodological issues and preliminary results.

Presenting author: Gudrun Weinmyar.

Weinmyr G\textsuperscript{10}, Antó JM\textsuperscript{2,3}, Duran-Tauleria E\textsuperscript{1,2,3} Forastiere F\textsuperscript{4}, Gaga M\textsuperscript{5}, Janson C\textsuperscript{6}, Jarvis D\textsuperscript{7}, Roca J\textsuperscript{8}, Viegi G\textsuperscript{9} and the IMCA II Group.

\textsuperscript{1}Institut de Prestacions d'Asistència Mèdica al Personal Municipal (PAMEM), Barcelona, Spain, 08015; \textsuperscript{2}Centre for Research in Environmental Epidemiology (CREAL), Barcelona, Sri Lanka; \textsuperscript{3}Municipal Institut of Medical Research (IMIM-Hospital del Mar), Barcelona, Spain; \textsuperscript{4}Epidemiology, ASL RM5, Rome, Italy; \textsuperscript{5}Respiratory Medicine Dept adn Asthma Centre, Athens Chest Hospital "Sotiria", Athens, Grenada; \textsuperscript{6}Department of Medical Sciences, Respiratory Medicine and Allergology, Uppsala, Sweden; \textsuperscript{7}Respiratory Epidemiology and Public Health, Imperial College, London, United Kingdom; \textsuperscript{8}Servei de Pneumologia, Hospital Clínic, IDIBAPS, Universitat de Barcelona, Barcelona, Spain; \textsuperscript{9}Institute of Clinical Physiology, CNR, Pisa, Italy and \textsuperscript{10}Institut of Epidemiology, Ulm University, Ulm, Germany.

Body: Introduction: COPD produces a substantial and growing disease burden worldwide and specially in the elderly population. In Europe, there is not any population based study assessing the prevalence and clinical management of COPD focused on this age group. Objective: 1) To estimate the prevalence of asthma and COPD in the elderly population in four European countries. 2) To estimate the indicators on asthma and COPD recommended and defined by the IMCA I project. Methods: The study has a population-based cross-sectional design carried out in 5 European centers: Barcelona (Spain), Uppsala (Sweden), Ulm (Germany), Pisa (Italy) and Rome (Italy). In all centers the sample was randomly selected from a population registry and includes individuals aged 65 and over. Information on respiratory conditions was collected by the “IMCA-RHSE Core
Questionnaire” and the “IMCA-RHSE Core measurements”. The measurements included were: weight, height, blood pressure, pulseoximetry, pre-bronchodilator spirometry and post-bronchodilator spirometry. Barcelona and Ulm centers also collected the “IMCA-RHSE Optional Questionnaire” including: LAPQ physical activity, Barthel Index, Hospital Anxiety and Depression Scale (HADS), Mini Mental State Examination (MMSE), quality of life (SF-12) and the Mini Nutritional Assessment (MNA). The “IMCA_RHSE Optional measurements” included: Short Physical Performance Test. Results: At this stage, the fieldwork is still ongoing and a total sample (N=5431) individuals is already collected. It is expected to have finalized the study in two months and having a final sample of (N=7100).

Conclusions: This will be the first population based international survey assessing COPD and asthma focused in the elderly population and providing relevant information for public health intervention.

Characters count (without spaces): 2488

Abstract 3

Title: IMCA Recommendations on questionnaires and measurements to include in the future European Health Examination Survey (EHES).

Jarvis D7, Antó JM2,3, Duran-Tauleria E1,2,3 Forastiere F4, Gaga M5, Janson C6, Roca J8, Viegi G9 Weinmayr G10 and the IMCA II Group.

1Institut de Prestacions d’Asistència Mèdica al Personal Municipal (PAMEM), Barcelona, Spain, 08015; 2Centre for Research in Environmental Epidemiology (CREAL), Barcelona, Sri Lanka; 3Municipal Institut of Medical Research (IMIM-Hospital del Mar), Barcelona, Spain; 4Epidemiology, ASL RM5, Rome, Italy; 5Respiratory Medicine Dept adn Asthma Centre, Athens Chest Hospital "Sotiria", Athens, Grenada; 6Department of Medical Sciences, Respiratory Medicine and Allergology, Uppsala, Sweden; 7Respiratory Epidemiology and Public Health, Imperial College, London, United Kingdom; 8Servei de Pneumologia, Hospital Clínic, IDIBAPS, Universitat de Barcelona, Barcelona, Spain; 1Institute of Clinical Physiology, CNR, Pisa, Italy and 10Institut of Epidemiology, Ulm University, Ulm, Germany.

Body: Introduction: Health Examination Surveys (HES) are limited in Europe and most of them do not include measurements to assess chronic respiratory diseases (CRD) due to its methodological and organizational complexity. Objective: 1) To assess the feasibility of using new ICT tools for performing interviews and home measurements in the context of large scale international respiratory surveys, 2) To recommend a module on respiratory diseases to be included in the new European Health Examination
Survey (EHES) **Methods:** The study has a a population-based cross-sectional and multicenter design carried out in 10 European centers: Barcelona (Spain), Uppsala (Sweden), Ulm (Germany, Pisa (Italy), Rome (Italy), Warsaw (Poland), Sofia (Bulgaria), Athens (Greece), Bergen (Norway). The sample was randomly selected from population registry and included individuals from 6 to 65 years old. Information on disease and respiratory symptoms was collected by GAL\textsuperscript{2}LEN (adults) and ISAAC (children) questionnaires. Spirometry, blood pressure, pulse-oximetry, height and weight measurements were performed using sensors. The new ICT tool operating through a technological platform supporting chronic care was used for data collection and transmission. **Results:** A total of 556 individuals were included (56% males and 44% females) with mean age 51±2.3. Asthma prevalence was 10,3%, wheeze in the last 12 months 12,5%, and 53,6% of asthmatic individuals are currently taking asthma medication. All individuals completed the questionnaire and 91,6 % accepted to perform the measurements at home and all results were successfully transmitted to the central database with high level of security and confidentiality.

**Conclusions:** The IMCA Group, recommends the inclusion of a module on respiratory in the future European Health Examination Survey (EHES).

**Characters count (without spaces):** 2489

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### Abstract 4

**Title:** Wireless mobile technologies facilitates home-based spirometry testing and online data processing in large epidemiological surveys: results from the IMCA-HES Feasibility Study.

Burgos F\textsuperscript{8}, Martinez C\textsuperscript{1}, Antó JM\textsuperscript{2,3}, Duran-Tauleria E\textsuperscript{1,2,3} Forastiere F\textsuperscript{4}, Gaga M\textsuperscript{5}, Janson C\textsuperscript{6}, Jarvis D\textsuperscript{7}, Roca J\textsuperscript{8}, Viegi G\textsuperscript{9}, Weinmayr G\textsuperscript{10} and the IMCA II Group.

\textsuperscript{1}Institut de Prestacions d’Asistència Mèdica al Personal Municipal (PAMEM), Barcelona, Spain, 08015; \textsuperscript{2}Centre for Research in Environmental Epidemiology (CREAL), Barcelona, Sri Lanka; \textsuperscript{3}Municipal Institut of Medical Research (IMIM-Hospital del Mar), Barcelona, Spain; \textsuperscript{4}Epidemiology, ASL RM5, Rome, Italy; \textsuperscript{5}Respiratory Medicine Dept and Asthma Centre, Athens Chest Hospital "Sotiria", Athens, Grenada; \textsuperscript{6}Department of Medical Sciences, Respiratory Medicine and Allergology, Uppsala, Sweden; \textsuperscript{7}Respiratory Epidemiology and Public Health, Imperial College, London, United Kingdom; \textsuperscript{8}Servei de Pneumologia, Hospital Clínic, IDIBAPS, Universitat de Barcelona,
Body: Introduction: New ICT tools to facilitate the performance of home based spirometry testing are available. However, there are not studies showing the feasibility of using these tools and obtain high quality of data in large epidemiological surveys or health examination surveys (HES).

Objective: To assess the feasibility of using wireless mobile technology as a tool for performing high quality home based spirometry tests in the context of large scale international respiratory surveys.

Methods: The study has a population-based cross-sectional and multicenter design carried out in 10 European centers: Barcelona (Spain), Uppsala (Sweden), Ulm (Germany), Pisa (Italy), Rome (Italy), Warsaw (Poland), Sofia (Bulgaria), Athens (Greece), Bergen (Norway). The sample was randomly selected from population registry and included individuals from 6 to 65 years old. Pre and post-bronchodilator spirometry tests were performed using the NDD Easy One. Tests quality was assessed using the grades A, B,C,D,E and F and spirometry curves were assessed individually by a technician.

Results: A total of 556 accepted to participate and were included in the study. The acceptance rate in each center for a pre-bronchodilator test ranged from 92,7% to 100%. In contrast the range for the post-bronchodilator test decreased from 78,2% to 90,1%. The mean value for FVC was 3,44±1,2; FEV₁ 2,69±1,2; FEV₁/ FVC 0,77±0,10. Large variations in the quality of spirometry were observed between centers. The center with the lowest rate in quality A was 40,0% and the center with the highest was 74,2%.

Conclusions: The ICT tools help to perform high quality home based spirometry testing but they need to be used in the appropriate way to ensure quality monitoring and training over time.

Characters count (without spaces): 2481
Wednesday, 22 September 2010

Geneva (Hall 1)  Session 499  10:45-12:45

S  Hot Topic: Monitoring chronic respiratory diseases in Europe: what we know, new challenges and new opportunities

Chairs: G. Viegi (Pisa, Italy), J. Roca (Barcelona, Spain)

Aims: The aims of this symposium are to: - review the major problems and developments required to appropriately assess the burden of asthma and COPD across Europe - present the protocol and discuss the methodological issues of the IMCA-Respiratory Health Survey in the Elderly - identify and discuss the new opportunities and priorities for setting up a monitoring system for chronic diseases in Europe

Target audience: Clinicians, epidemiologists and professionals interested in health monitoring and public health

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<th>Title</th>
<th>Speaker</th>
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<td>The IMCA project: achievements and new challenges in monitoring respiratory diseases in Europe</td>
<td>E. Duran (Barcelona, Spain)</td>
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<td>D. Jarvis (London, United Kingdom)</td>
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**Monday April 12**

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<td>12.30 – 13:00</td>
<td><strong>WELCOME OF PARTICIPANTS: LUNCH - BUFFET</strong></td>
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<td>13:00 – 13:15</td>
<td>Welcome by E. Duran / JM. Antó / R. Treserres / J. Escarrabill / A. Montserrat</td>
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**13:30 – 13:45**

**Introduction**

- E. Duran / JM. Antó / R. Treserres / J. Escarrabill / A. Montserrat

**13:45 – 14:00**

What we have achieved to date and what still have to do for completing the final reports. A work plan for the next months. (Administrative and scientific issues).

- A. Guiral / E. Duran

**Annex 1:** IMCA Group work plan for next months.

**14:00 – 14:30**

**WP4 - INDICATORS FROM ROUTINE DATABASES. CHAIR: G. VIEGI**

**14:30 – 14:45**

- Geographical variations and trends in COPD and asthma mortality and hospital discharges in Europe (national level): submitted version and further steps for an upgraded version.
  - E. Duran / R. Gispert

**Annex 2:** Deliverable 8 submitted in the 2nd interim report.

**Annex 3:** Atlas on mortality in the European Union (as example).

(These two reports are available at the IMCA web)

**14:45 – 15:00**

Group discussion.

**15:00 – 15:15**

Collecting and Working with EU-wide COPD data for the DYNAMO-HIA project: incidence, prevalence and excess mortality?

- M. Kullik

**Annex 4:** Slides presentation.

**15:15 – 15:30**

Group discussion.

**15:30 – 15:45**

Coffee break

**15:45 – 16:00**

Environmental indicators on air pollution and smoking in Europe: sources of data and uses for epidemiological studies.

- H. Moshamer
Annex 5: Slides presentation.

16.00 – 16-15 Group discussion.

16:15 – 16:30 Guidelines to fill in the gaps in the routine data collection still to be completed. (E. Duran)

Annex 6: Slides presentation.

16:30 – 17:30 WP5 - Indicators from international research studies. Chair: F. Forastiere

16:30 – 16:45 What we have achieved and what we have learned from international research studies? (D. Jarvis – G Weinmayr)


16:45 – 17:00 Group discussion.

17:00 – 17:15 Public health priorities for asthma and COPD and influence of population level genetic profiles on priorities. (D. Jarvis)

17:15 – 17:30 Group Discussion

Tuesday April 13

9:00 – 12.00 WP6 - Pilot study: Respiratory measurements in HES. Chair: J. Roca

09:00 – 09:15 European strategy towards the implementation of the first European Health Examination Survey. (A. Montserrat)

Annex 8: Slides presentation.

09:15 – 09:30 Group discussion.

09:30 – 10:00 The HES Feasibility studies: results and implications for future developments (organization, spirometry quality and technological issues). (C. Martinez / A. Guiral / F. Burgos / M. Bajet)
Annex 9: Slides presentation.
Annex 9b: Deliverable D13 on the outcomes of the HES Feasibility studies. (This report is available at the IMCA web).

10:00 – 10:15 Group discussion.


(H. Tolonen)

Annex 10: Slides presentation.

Annex 10b: Recommendations for Health Examination Surveys in Europe. (This report is available at the IMCA web).

10:30 – 10:45 Group discussion.

10:45 – 11:00 Coffee break

11:00 – 11:15 Respiratory diseases in the Health Survey for England 2001-2010: changes in questions and measurements over time.

(R. Craig)

Annex 11: Slides presentation.

11:15 – 11:30 Group discussion.

11:30 – 11:45 Recommendations for a HES module on respiratory diseases (Asthma & COPD). (R. Pistelli)

Annex 12: Slides presentation.

Annex 12b: Deliverable D14 on the feasibility of incorporating ICT in future HES. (This report is available at the IMCA web).

11:45 – 12:00 Group discussion
12.00 – 15.15  **WP6 – RESPIRATORY HEALTH SURVEY IN THE ELDERLY.**  
**Chair: JM Antó**

12:00 – 12:15  Respiratory Health Survey in the Elderly: overview of the final protocol and technological alternatives for the implementation in each country.  
(E. Duran)

**Annex 13:**  *Deliverable 15: IMCA-RHSE protocol.*  
(This report is available at the IMCA web).

12:15 – 12:25  Implementation and progress report from Pisa (Italy)  
(S. Maio / G. Viegi)

12:25 – 12:45  Implementation and progress report from Roma (Italy)  
(D. Porta / F. Forastiere)

12:45 – 13:05  Implementation and progress report from Ulm (Germany)  
(G. Wenymair / R. Peter)

13:05 – 13:15  Implementation and progress report from Barcelona (Spain)  
(C. Martinez / E. Duran)

13:15 – 14:15  
**LUNCH - BUFFET**

14:15 – 14:30  Overview of progress to date, questionnaires and measurements quality of data: issues for improvement?  
(F. Burgos / C. Martinez / E. Duran)

**Annex 14:** Slides presentation.

14:30 – 14:45  Respiratory Health Survey in the Elderly: initial tables presentation to be included in the final report.

**Annex 15:** Proposal for initial tables and report presentation.  
**Annex 15b:** IMCA-RHSE Core and Optional questionnaires.  
(The questionnaires are available at the IMCA web).

14:45 – 15:15  Group discussion.

15:15 – 16:15  **WP2 – DISSEMINATION - MANAGEMENT**  
**Chair: G. Weinmayr**

15:15 – 15:30  Important final issues for partners reporting in relation to final scientific and financial reports: deadlines and documents needed.  
(A. Guiral)

15:30 – 15:45  How to integrate outputs of WP4 and WP5 and make all information available through the IMCA web? When, how and under which requirements. (E. Duran)
15:45 - 16:00  Publication policy, dissemination strategy and actions to take at international and national level. (G. Viegi)

**Annex 16:** [Deliverable 4 on the dissemination plan](#).
(This report is available at the IMCA web).

16:00 – 16:15  Group discussion.

16:15  Closure.
The first aim of the IMCA II is to extend the work on indicators already carried out by the IMCA I project by collecting or using already available data and producing reports/papers on all groups of indicators recommended by the project (mortality, prevalence, risk factors, clinical management/health services and outcomes). This work will qualitatively and quantitatively improve the current level of information on COPD and asthma in the EU and will provide relevant information, based on the scientific evidence, necessary for clinical and health care policy decision making at all levels of health care administration.

The second aim is to extend the work of IMCA I project by developing a module of COPD and asthma to be incorporated to health examination surveys and testing its feasibility and pilot performance in four selected small geographical areas of Spain, Italy, Sweden and Germany. This work will provide new instruments to collect all relevant information required to estimate all indicators recommended by the IMCA I project. This new module on respiratory diseases will solve the methodological problems identified by the IMCA project in the past and current instruments and measurements used in most studies.

**Indicators for Monitoring COPD and Asthma in the EU**

**IMCA II**

**HES Feasibility study protocol.**

The MHWorld system is a tool that has been developed to facilitate the management of large (national-international) epidemiological studies integrating the tasks of questionnaire design, measurements carried out by sensors, management of fieldwork and monitoring data collection and transmission on-line.

The system basically allows to perform measurements at home (spirometry, blood pressure, weight, etc), collect data on specific questionnaires and transmit data via web to a central server.

A fieldworker visits the individuals or patients and at home perform the measurements, using a Portable PC and data are transmitted to the PC via Bluetooth and from the PC to the central server.

The system allows to transmit data from everywhere with a telephone connection and web access.

The system allows to perform complex measurements at home in the context of epidemiological studies and avoids the need to invite patients to the hospital or a health care centre.

**Technology and communications system: IMCA II & MHWorld**
The main objectives of the HES Feasibility Study are:

- To assess the feasibility of using the MHWorld system as a tool for performing interviews and measurements at home in the context of large scale respiratory surveys at national and international level.

- To evaluate to what extent the MHWorld system can improve response rates to questionnaires, the acceptability of measurements performance and biological samples collection when the measurements are performed at home in comparison to other settings such as a primary health care centre.

**Overview of the fieldwork materials and tools**

**Equipment List:** Laptop computer (Acer TravelMate 6292), PCMacia (Oficin@Movistar UMTS/3G), SIM card (1 data transmission and 1 voice communication), sensor TA, oxygen saturation, spirometry and weight, stadiometer, bag pack or hand pack, telephone mobile (Motorola A1000) and blood sample kit.