INTERNATIONAL STUDY OF ASTHMA AND ALLERGIES IN CHILDHOOD

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NEWSLETTER CONTENTS:

NEWSLETTER – MARCH 2005

Dear Colleagues,

On behalf of the Executive I would like to extend my warmest greetings to you all, and welcome you to another exciting year.

As we reflect back on 2004 our attentions are naturally drawn to the tragedy of the Tsunami which must be one of the most wide reaching natural disasters in living memory. Many in the vast worldwide collaboration of ISAAC will have been affected by this; our deepest condolences go out to all. Words become pale in comparison to the images I'm sure you have all seen or been witness to. We will all feel the ripple effects of what this means for many years to come. The human responses of love, compassion and practical assistance have humbled us all.

Highlights for 2004: All data checks and centre reports have been finished for Phase Three A in preparation for data analysis, and the writing groups on behalf of the Phase One and Three Study Groups are currently working towards Worldwide Time Trends Papers of Asthma, Rhinitis and Atopic Eczema for Phase Three A Centres. (Centres which participated in ISAAC Phase One and Phase Three) Principal Investigators will have the opportunity to comment on the content of these papers prior to submission to Journals

The checking process for Phase Three B. (Centres participating for the first time in Phase Three) is under way and progressing well. If you have been in contact with either Philippa Ellwood or Tadd Clayton from the IIDC would you please reply to their emails promptly, as this allows all methodology checks to be completed and data confirmed ready for analysis.

We were invited to speak at a symposium on ISAAC and ECHRS at The European Respiratory Society (ERS) Glasgow 2004, and thoroughly enjoyed both the Meeting and catching up with those of you that were there at the Collaborators Function.

This year the ERS 2005 will be in Copenhagen September 17-21st 2005. Philippa Ellwood from the ISAAC International Data Centre (IIDC) will host a Collaborators Function; details will follow in the next newsletter so "watch this space."

On behalf of the Executive I would like to thank Dr Donald A Enarson, Director of Scientific Activities, International Union Against Tuberculosis and Lung Disease (IJTLD), for his editorial on the ISAAC Phase Three Methods paper. It is entitled "Fostering a spirit of critical thinking" on page 4. We find this most encouraging and complimentary. "Enjoy"

Warm wishes

Innes Asher

Professor Innes Asher ONZM
On behalf of the ISAAC International Data Centre and Steering Committee

ISAAC Profile

Philippa Ellwood
ISAAC Steering Committee
ISAAC International Data Centre (IIDC Research Manager)

I was born in Wellington, the capital city of New Zealand (quite a few decades ago now) and moved to Auckland 18 years ago, with husband Michael and sons Jeremy and Adam, then aged 4 and 6.

Shortly after arriving in Auckland I embarked on a part time 'career' washing/sterilizing the glassware for The University of Auckland's Cancer Research Laboratory and Oncology Department. However, having soon met that challenge, I moved to the 'Mouse House' where my skills at breeding mice were finely tuned (and my sense of smell!). Alongside the breeding programme, I became involved with the laboratory experiments and soon decided that a science degree was a requirement, if I continued on this path.

It was about this time (1992) that Professor Innes Asher from the Department of Paediatrics, The University of Auckland, placed an advertisement in the daily paper. Without mentioning ISAAC, the requirement was for a research assistant in the Auckland District, working with school children. With my tertiary background as a Department of Health, School Dental Nurse, I thought this would really suit me. Well – that was 13 years ago and I have since had an amazing journey with ISAAC.

My initial role was to undertake the ISAAC Phase One fieldwork in Auckland. With a population of around 1 million people, and a large urban sprawl, I set out to do the best I possibly could. With the road map on my lap and no idea how long it would take me to get to the schools, I would set off - often driving over 100 kms a day to visit the schools. The secondary schools were a real challenge as often as not the teachers left me to cope on my own with the students. I would arrive back at the Department of Paediatrics, looking as if a bulldozer had run over me! After a period of 12 months the Auckland Phase One field work had been completed.

The rest is history. I became involved with the other New Zealand centres, the International centres, undertook the fieldwork for Phase Three in Auckland, completed a Post Graduate Diploma of Public Health and have begun a Masters in Public Health this year. In 2003, I was invited to become a member of the ISAAC Steering Committee - A huge honour for me. In my current position as ISAAC Research Manager at the International Data Centre in Auckland, I have the privilege of communicating with hundreds of people from around the world. This is the most wonderful aspect of my job and I have had many fantastic experiences. On a final note, I would like to thank everyone who has helped to make my job so fantastic and who make ISAAC such a global success. I feel very proud to be part of ISAAC. Happy New Year.

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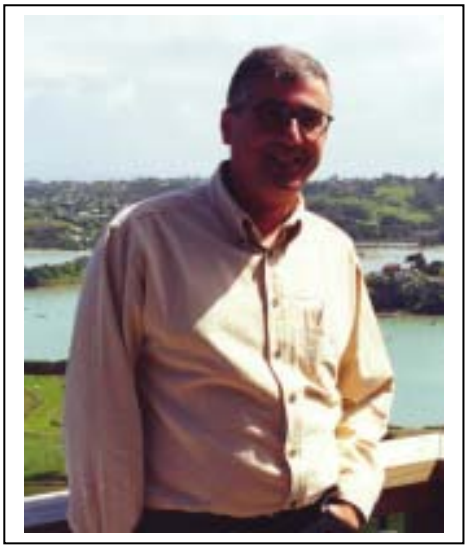
ISAAC Profile



Dr Stephen Montefort

ISAAC Steering Committee
Regional Co-ordinator for Eastern Mediterranean Region

I was born in 1960 and have just turned 45. I am married to my wife Anna and we have two daughters - Maxine 19 years, a 2nd year Medical student [against my better advice] and Corinne 17 year ‘s doing her A levels in Accounts, Economics and Maths [leading to a more profitable line of work then mine].

I qualified with an MD in Malta in 1984 and pursued further study in United Kingdom at the Hammersmith Hospital London for MRCP [UK] in 1988 and completed a PhD in Southampton on the role of adhesion in mucosal inflammation in Asthma and rhinitis.

In 1993 – I returned to Malta (for better or for worse) where I have been a Consultant Respiratory Physician at St Lukes Hospital and Senior lecturer in Medicine since 1997. I gained my FRCP in 1999.

I am very busy clinically, involved both in public and private medicine, mostly seeing asthma, COPD, lung cancer and sleep apnoea patients.

I am a member of the ISAAC Steering Committee and the Regional Coordinator of Eastern Mediterranean Region. I recently set up The Malta Asthma Society. I try to keep abreast of advances in my field by attending various conferences.

Apart form my family, my major pastime is motor boating in the lovely Maltese waters – “my boat is my second wife and her upkeep is almost as expensive as that of the first wife”. My wife and I love to travel and do as much as we can.

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2005 IUATLD

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Fostering a spirit of critical thinking: the ISAAC story

In this issue of the *Journal* we have the good fortune to have an article outlining the methods used in the International Study of Asthma and Allergies in Childhood (ISAAC). [1] This initiative has been a tremendous development in encouraging participation in research across the world.

It began with Phase One in 1992, with the concept of developing a simple frame to compare the distribution of symptoms of asthma and allergies across the world. When it was first proposed, it was met, in some circles of professional epidemiologists, by a degree of scepticism because of its simplicity and relative 'naiveté'. In spite of this, an enthusiastic core of investigators pushed forward and developed a network that now spans the globe and has provided food for thought and a basis for action for asthma and allergies.

The concept of ISAAC was very simple at the outset—to develop a simple frame to undertake standard measurements and to make comparisons from one location to another, across geographic, cultural and linguistic boundaries. It operated with a decentralised structure, with partners in the venture encouraging groups in each geographic area. The base of the frame was very 'light', encompassing straightforward techniques that could be undertaken at any location and with few financial resources, enabling truly global participation. In addition, the structure was such as to permit the addition of any number of local questions to be addressed, varying in complexity according to the skills and resources of the centre involved.

What, to my mind, was most unique about ISAAC was its capacity to engage people in research. 'Professional' researchers often have a strange ability to frighten people away from research by emphasising its complexity and intimidating those with little self confidence, thus excluding individuals from what is, in essence, not only something eminently worthwhile but something downright fun. By 'democratising' critical thinking, ISAAC has been able to break through this barrier and engage people not previously involved in research in an exercise in disciplined measurement and critical thinking. These are basic skills in the health sciences beyond their utility in research, and for this ISAAC is to be heartily congratulated.

As stated by the Commission on Health Research for Development, '. . . for the world's most vulnerable people, the benefits of research offer a potential for change that has gone largely untapped'.[2] This report has emphasised the essential nature of research in achieving the changes necessary to improve health globally and the requirement that all public health action must have inbuilt research if it is to be appropriate, efficient and equitable. A major barrier to realising these lofty objectives is the lack of confidence of health care workers in involving themselves in research.

ISAAC is to be applauded for addressing this obstacle through open-minded, inclusive collaboration that has produced a base of knowledge that is used globally to inform policy. ISAAC is a model that should be followed by all those of us who are committed to improving public health in low-income countries.

Donald A. Enarson, MD
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1 Ellwood P, Asher M I, Beasley R, Clayton T O, Stewart A W and the ISAAC Steering Committee. The International Study of Asthma and Allergies in Childhood (ISAAC): Phase Three rationale and methods. Int J Tuberc Lung Dis 2005; 9: 10–16.
2 Commission on Health Research for Development. Health research. Essential link to equity in development. Oxford, UK: Oxford University Press, 1990: vii.

The Executive would like to acknowledge Philippa Ellwood who has received a commendation as the 2004 best non-academic staff member in the Faculty of Medical and Health Sciences, The University of Auckland.

"Congratulations"
Philippa

A well deserved award and a reflection of all your hard work.

Philippa would like to use this award by organising an ISAAC Collaborators function at the ERS Congress in Copenhagen, September 17 – 21st 2005. She has submitted an abstract for the ERS and intends to host the ISAAC Collaborators Function for all those who are able to attend.

Details will be outlined in the next newsletter.

CAUSE AND EFFECT

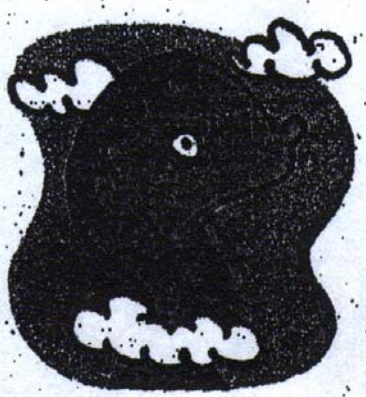
Dry Weather Is Asthma's Enemy

Does climate play a role in asthma?

A large-scale study involving children in 50 countries has found that asthma rates may be affected by climate, and that the skin condition eczema may also be affected.

The study, in the journal Occupational and Environmental Medicine, was based on a survey of more than 650,000 children. The survey was part of a larger international research project.

The researchers looked at several factors related to climate, including altitude, latitude, temperature and humidity, and found that they all seemed to affect asthma and eczema rates. But indoor humidity topped the list.



"Possibly the most consistent and important relation that emerged was the one between indoor relative humidity and asthma symptoms," the lead author, Dr. Stephan K. Weiland of the University of Ulm in Germany, said in an e-mail message.

In Western Europe, for example, for every 10 percent mean annual increase in indoor humidity, the prevalence of asthma symptoms reported went up by 2.7 percent, the study said. One explanation may be that dust mites, which may play a role in asthmatic attacks, prefer a humid environment, as does a mold that can cause allergic reactions.

Less asthma was reported in countries where outdoor humidity fell below 50 percent for at least one month a year, or where there were higher altitudes or greater variations in temperature.

Doctors have long known that short-term changes in weather like falling temperatures can worsen asthma symptoms, as can higher pollen counts. But, the study said, that does not mean these same conditions are associated with the overall incidence of the disease.

SCIENTIFIC AMERICAN.COM

News
June 21, 2004

Global Study Links Climate to Rates of Childhood Asthma

A city's climate can influence more than just how comfortable its inhabitants will be, a new study suggests. A report published in the July issue of the journal *Occupational and Environmental Medicine* indicates that meteorological variables such as temperature and humidity are linked to rates of childhood asthma and eczema.

Stephan K. Weiland of the University of Ulm in Germany and his colleagues analyzed data collected from more than 650,000 subjects as part of the International Study of Asthma and Allergies in Childhood, which includes 155 participating centers around the world. The team compared the incidence of asthma and eczema to climate data for two groups: children between the ages of six and seven and youngsters aged 12 to 13. According to the report, for countries in western Europe each 10 percent increase in indoor humidity was linked to an almost 3 percent rise in the reported rate of asthma. What is more, cities in which the average humidity dropped below 50 percent for at least one month a year had lower rates of asthma compared to more humid locales. Higher altitude destinations and those with more variable temperatures were associated with lower asthma rates, whereas children living in cities with higher temperatures were less likely to have eczema.

Just how humidity affects asthma rates remains unclear, the authors caution, although increased exposure to dust mites and higher amounts of mold could be factors. The team notes that its study is the first to take a global view to examine the relationship between asthma and eczema and climate. The results, the authors conclude, "may also have implications for the assessment of potential health effects due to climate change." --*Sarah Graham*

What's in a name ?

Hywel Williams, ISAAC Steering Committee Member

One of the classical problems facing scientists who wish to describe human disease is the issue of nomenclature or nosology ie what to call them. Nowhere is this more relevant than in the field of allergic diseases. For example, what is wheezing illness, and is it the same as asthma and bronchial hyepreactivity? Or in my own field of atopic eczema, what is the difference between the terms atopic eczema, atopic dermatitis, childhood eczema, atopiform dermatitis, inflantile eczema or just plain eczema? – they are all meant to be synonyms of the same disease, but I am not so sure that people over the world use them in such a way. Although disease nosology may sound a bit tedious, it is the foundation on which all clinical studies of that disease rest upon. Without a universal agreement on the precise meaning of terms such as "allergy" and "hypersensitivity", we are in danger of talking about different things as in the proverbial tower of Babel.

In an attempt to standardise the terminology for allergic diseases, the nomenclature committee of the World Allergy Organisation (WAO) recently published its recommendation for naming allergic diseases such as asthma, eczema and rhinoconjunctivitis. The full reference to the report is:
Johansson SG, Bieber T, Dahl R, Friedmann PS, Lanier BQ, Lockey RF, Motala C, Ortega Martell JA, Platts-Mills TA, Ring J, Thien F, Van Cauwenberge P, Williams HC.
Revised nomenclature for allergy for global use: Report of the Nomenclature Review Committee of the World Allergy Organization, October 2003. *J Allergy Clin Immunol.* 2004;113:832-6. The report is a refinement of a previous attempt at unifying the naming of allergic diseases led by Professor Gunnar Johansson, and it has the backing of several organisation that make up the WAO. ISAAC recently discussed the paper in Tonga and decided to adopt the new nomenclature wherever possible.

If you cannot get hold of the original article, a synopsis is available in 23 different languages at the World Allergy website at the following address:
http://www.worldallergy.org/professional/allergic_diseases_center/nomenclature/nomenclaturesynopsis.shtml

As you see from the list of authors, I was involved in the work, particularly with regards to suggesting a logical way forward for classifying eczema. It has always seemed odd to me that we call atopic eczema "atopic" when up to 50% of "typical" cases may not be atopic[1]. The new idea of calling cases that are defined on the basis of symptoms and/or signs as simple "eczema" makes a lot of sense, since such a definition can then be further qualified by saying whether they were truly atopic or not on the basis of skin prick testing or finding specific IgE in the blood.

Trying to suggest a unifying nomenclature for allergic disease is no mean challenge – much scientific energy has been wasted in the past debating about the various pros and cons of terms that are held dear to some countries and not others[2], but it is time to move forward now and bury our past differences in the hope of achieving our goal of universal communication. The nosology proposed in the WAO document might well need to be reclassified in the future as more discoveries are made about the causes of allergic disease, but for now, we should all try and use the new nomenclature in our communications.

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Local Snap Shots

UNIVERSITY OF PRETORIA
FACULTY OF HEALTH SCIENCES

SCHOOL OF HEALTH SYSTEMS AND PUBLIC HEALTH

ISAAC Field workers: Polokwane, South Africa, Aug 2004
(All Masters of Public Health students)

Back row, left to right:
Josephine Gwangwa, Sarah Mabitsela, Pamela Mamogobo, Chantelle Maritz (Coordinator), MP Masipa, Mavis Dikgale, Joyce Mashamba,
Front row, left to right:
Percy Kekana, Julia Mokoena, Moss Makwana, Grace Phoza, Bafana Malaza, Swazi Buthelezi

ISAAC Data Capturers: Pretoria, South Africa, Jan 2005
(They are all teachers)

Back to front: Charis Coetzee, Lauren Farrell, Sophia Smit, Trevor Smit, Carel van der Merwe

Food for thought: How can ISAAC Help?

Comments from Professor Hywel Williams follow this poem.

Poem from the book entitled "Sing Song" Author Anne Kennedy,

Doubt

The mother does question once or twice
In the sediment of some long night

How the cream doesn't appear to soothe
The baby, in fact, might make her worse

But no, it's just her mind playing
A stripy game of lack of sleep and in

And out of consciousness and doubt
And faith which packs down, layer by layer

To make a glorious mystery. The whole
Truth. Everyone

From the specialist at the hospital
To the quack who first treated her

To the naturopath to the GP
To the magazine of blonde children says

Moisturising is the most important thing
and aqueous cream is the most benign, most

pacific cream

Published 2003 Auckland University Press
http://www.nzbookcouncil.org.nz/writers/kennedyanne.htm
http://www2.auckland.ac.nz/aup/books/kennedy-singsong.html

We are very privileged to have one of the Worlds leading Dermatologist's Professor Hywel Williams as part of the ISAAC Family and member of the ISAAC Steering Committee. He is based at the Centre for Evidence Based Dermatology, Queen's Medical Centre, University Hospital. UNITED KINGDOM

Professor Williams chooses our poems for the Newsletter and occasionally shares insight into why he had made this choice.

"I liked it because it captures the lonely hours of the early morning trying desperately to calm an itchy child, and the doubts that creep into the mother's mind when repeat applications of moisturisers does not seem to work. Her doubts accord with my belief that moisturisers alone are pretty useless in a child with moderate to severe atopic eczema - there is very little good evidence that they do very much apart from moisturise! Sometimes mothers are told adamantly to undertake complicated rituals with creams, and some of the smarter mothers begin to have their doubts. I love Anne's phrase "in the sediment of some long night", presumably referring to a concoction of messy creams whilst trying to "settle down" to sleep."

"Congratulations"

Congratulations Dr David Barry (Right hand side of photograph)

Dr David Barry is a Paediatrician from the Hawke's Bay Region of New Zealand (Oceania) and was a Principal Investigator for ISAAC Phase One and Phase Two in the Hawkes Bay.

On 15th October 2004 Dr David Barry was awarded the "Asthma and Respiratory Foundation of New Zealand's 40th anniversary medal" for services to children with asthma, and for services to the Asthma and Respiratory Foundation of New Zealand.

This is great news and well deserved

From all of us "Well Done"

ISAAC Steering Committee Meeting. November 2004 - Reflections of Tonga

The ISAAC Steering Committee has in recent years held its annual meetings in countries where one of the Regional Coordinators resides. This has proven to be incredibly valuable as it has given an insight into the dynamics, benefits and restraints each country faces. Last year the Steering Committee Meeting was held in the beautiful Island of Tonga. I was given the privilege of been able to observe this meeting, thank you all for allowing me to attend. Yes we had an opportunity to unwind, but I was incredibly humbled by the Steering Committee's commitment and dedication to ISAAC, their sense of personal ownership of ISAAC, and their integrity towards each other was unique. I'm sure this is why ISAAC has worked – Using Ulrich Keil's words "(ISAAC) it's like a family" - Tania Milne (IIDC Senior Administrative Assistant)

Here are a few thoughts from those who attended:

"Tonga for me was all about understanding island life. By island life, I don't only mean the idyllic scenery, warm friendly and relaxed people, and great social gatherings, but an understanding of the practical difficulties of conducting research such as the ISAAC study in a collection of small islands. I have come to realise that sometimes, what may appear to be a relatively small sample size, can mean the entire island population, and that we should be conscious of effort rather than just big numbers all the time." Hywel Williams:

The TONGA ISAAC Steering Committee Meeting was a great success, also partly due to the fact that I saw a glimpse of the KING OF TONGA in the swimming pool of our hotel in NUKU ALOFA, and not least because of the outstanding organization of the meeting!!! Congratulations to all involved!!!!!
Going from Germany to TONGA is a long way but I felt at home in the Friends Cafe at the main street in NUKU ALOFA. Already in November they played German Christmas songs such as: Leise rieselt der Schnee..... O Tannenbaum, O Tannenbaum..... and the like and more importantly, the cakes there were very good!!!! – Ulrich Keil

"Wonderful hosts, great location, good weather AND an academically successful meeting with friends... what more can one ask for?" – Ed Mitchell

Photos from Tonga

We achieved a tremendous amount of work in Tonga.

The Executive would like to thank
Dr Sunia Foliaki
For hosting the
ISAAC Steering Committee
Meeting in Tonga 2004.

We really appreciate all the effort you went to, in giving us an opportunity to enjoy your beautiful country, and for making our stay so memorable.

The 2005 ISAAC Steering Committee Meeting will be held in Hong Kong November 2005. It will be hosted by Dr Chris Lai and Dr Gary Wong. In addition the following meetings will also be held:

November 6 2005: The Autumn Respiratory Seminaar (ARS) Hosted by the Hong Kong Thoracic Society in Hong Kong

November 11 – 14 2005:
10th Congress of Asia Pacific Society of Respirology (APSR)
In Guangzhou – China the 1st Joint Congres of the APSR/ACCP (American Collage of Chest Physicians)

Information: CMP Medica Asia, Unit 16B, New Hualian Masion (East Tower), 755 Huai Hai Zhong Road, Shanghai 200020, China. Tel: 86 2154652660213; Fax: 86 2154652662:
E- mail: apsr2005@asia.cmpmedica.com: Internet: www.apsr2005.com

Invitation to all ISAAC Collaborators:
For all those who are interested in attending the Summer school of Epidemiology in Ulm, Germany please see attached Adobe PDF Programme sent with this Newsletter.

University of Ulm, Germany

16th International Summer School of Epidemiology at the University of Ulm

Dept. of Epidemiology
July 18 – July 22, 2005

ISAAC's Publications

ISAAC
Publications Check

Web: http://isaac.auckland.ac.nz

Dear Collaborators'

Would you all please check the Publications section on the ISAAC Website?

If you have written a paper under the ISAAC umbrella that is not listed on the ISAAC Website please let us know so we can update our Publications list:

Please go to: http://isaac.auckland.ac.nz
Then select: Publications
: Please check **all areas** of the Publications except:
Global Worldwide Publications

Please email a copy if possible to Tania Milne IIDC:isaacadmin@auckland.ac.nz

ISAAC Phase I Publications

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1.0 Preliminary Papers

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2.0 Main Findings

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4.0 Ecologic Analyses

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4.2 Anderson HR. Poloniecki JD. Strachan DP. Beasley R. Bjorksten B. Asher MI. ISAAC Phase 1 Study Group. Immunization and symptoms of atopic disease in children: results from the International Study of Asthma and Allergies in Childhood. Am J Publ Health 2001; 91: 1126-9.

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Other Papers

5.1 Anderson R, Robertson C, Montefort S. World-wide variations in asthma in children: association with severity, evidence of other atopic diagnosis and sex ratio. In preparation.

5.2 Crane J, Mallol J, Beasley R, Stewart A, Asher MI, on behalf of the International Study of Asthma and Allergies in Childhood (ISAAC) Phase I study group. Agreement between written and video questions for comparing asthma symptoms in ISAAC. Eur Respir J 2003; 21: 455-61.

5.3 Pearce N, Sunyer J, Cheng S, Chinn S, Bjorksten B, Burr M, Keil U, Anderson HR, Burney P, on behalf of the ISAAC Steering Committee and the European Community Respiratory Health Survey. Comparison on asthma prevalence in the ISAAC and the ECRHS. Eur Resp J 2000; 16: 420-6.

5.4 Stewart AW, Mitchell EA. Month of birth and childhood atopic diseases: the International Study of Asthma and Allergies in Childhood (ISAAC). In preparation.

ISAAC Phase II Publications

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1.0 Preliminary Papers

1.1 Weiland SK, Björkstén B, Brunekreef B, Cookson WOC, von Mutius E, Strachan DP, and the ISAAC Phase II Study Group. Phase II of the International Study of Asthma and Allergies in Childhood (ISAAC II): rationale and methods. Eur Respir J 2004; 24: 406-412.

ISAAC Phase III Publications

The International Study of Asthma and Allergies in Childhood (ISAAC): Phase Three rationale and methods.

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Abstract
The International Study of Asthma and Allergies in Childhood (ISAAC) programme commenced in 1991 to study the aetiology of asthma, allergic rhinoconjunctivitis and atopic eczema in children in different populations using standardised methodology and facilitating international collaboration. ISAAC Phase One (1992-1996) found marked differences in the prevalence of symptoms of asthma and allergic disease throughout the world which have not been explained by the current understanding of these diseases. ISAAC Phase Two (1998-2004) uses intensive investigations to further examine the potential role of risk and protective factors that may contribute to the international difference observed in Phase One. Phase Three (2000-2003) essentially represents a repeat of Phase One, in which more detailed standardised data are obtained to enable the time trends of symptom prevalence to be determined as well as the development of a more comprehensive 'world map'. The ISAAC Phase Three rationale and methods are described in this paper. With over 280 centres in 106 countries, we anticipate that ISAAC Phase Three will comprehensively determine the prevalence of symptoms of asthma and allergic disease worldwide, explore recent time trends in the prevalence of these symptoms and cast new light on the aetiology of asthma and allergic disease.

The future holds great promises for ISAAC Phase Three Publications with eight papers planned so far.

There are four Time Trends Papers in preparation at present looking at the three main symptoms, Asthma, Rhinitis, Eczema and an Overview Time Trends paper. These will be authored by a writing group "And the Phase One and Three Study Groups". The Principal Investigators and National Coordinators will be named in at least one of these papers, and are, of course part of these study groups.

Another four papers have been planned which will be new ISAAC Worldwide Maps in relation to each of the three main symptoms, Asthma, Rhinitis, Eczema and a Synthesis paper. Again, the Principal Investigators will be included.