

INTERNATIONAL

NEWSLETTER – AUGUST 2004

STUDY OF

ASTHMA AND

ALLERGIES IN

CHILDHOOD

Dear Colleagues,

I am pleased to send you this second newsletter for 2004.

The IIDC are busy preparing data for analysis, and work has begun on the first Worldwide Papers on Time Trends of Asthma, Allergic Rhinoconjunctivitis, and Atopic Eczema for Phase Three A centers. (Centers which participated in ISAAC Phase One and now participating in Phase Three).

The European Respiratory Society has invited ISAAC to contribute to the ERS Assembly Symposium on the 5th September in Glasgow at the Annual Congress as described on page 9. Preliminary results of the Worldwide Time Trend analyses and ISAAC Phase two will be presented.

Following the symposium a venue has been booked for an ISAAC Collaborators Function; this is our opportunity to enjoy and catch up with each other, over a few drinks and a buffet meal; Thank you David Strachan for organizing this. I look forward to seeing some of you there. If you are intending to go, would you please contact Tania Milne (isaacadmin@auckland.ac.nz) as we would like to confirm numbers for catering purposes?

We are fast approaching the next Steering Committee Meeting which will be held in Tonga on the 13th and 14th November, and the Postgraduate Symposium on the 15th November 2004. The meeting this year is hosted by Dr Sunia Foliaki the Regional Coordinator, Principle investigator and Steering Committee Member for ISAAC.

We are pleased to announce that the ecological analyses of antibiotic sales and climate have been published recently – see abstracts later in the newsletter.

As a collaborative study we enjoy having feedback on this newsletter or any other issues from the ISAAC community.

Again I thank you all for your efforts towards the success of ISAAC.

Warm wishes

Innes Asher

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

ISAAC PROFILE



Professor Joseph A. Odhiambo
ISAAC Regional Co-ordinator for Anglophone Africa

Roles:

ISAAC Steering Committee
Regional Co-ordinator, Anglophone Africa

Born on 31st July 1954 in Siaya, in Western Kenya. Best A level grades at Kakamega High School (1975), completed MB ChB in 1981 at the Medical School, University of Nairobi (1976 – 1981); worked as a Medical Officer at New Nyanza General Hospital for 3 years (1981 – 1984) including one year internship before registration in Kenya as a Medical Practitioner; postgraduate trainings: M Med (Internal Medicine, 1984 – 1987 University of Nairobi, Kenyatta National Hospital), Respiratory Medicine (1989, Nagasaki University). Dip in Epidemiology / Biostatistics (McGill, 1992, 1994). Joined Kenya Medical Research Institute (KEMRI) in 1988 and rose through the ranks to become Director, Center for Respiratory Diseases Research. During tenure in KEMRI, spearheaded population-based asthma epidemiology studies primarily targeting schoolchildren, oversaw as Nairobi Centre PI, successful implementation of ISAAC Phase I in 1995, won IUATLD Scientific Prize in 1998 for work on “Urban-rural differences in questionnaire-derived markers of asthma in Kenyan school children”, several publications on clinical care and epidemiology of asthma and tuberculosis. Appointed Regional Coordinator, Anglophone Africa ISAAC Phase III in 2000, participated in the 11th (Auckland), 12th (Malta), 13th (Stockholm) and hosted the 14th (Nairobi) International Workshop on ISAAC. The Nairobi Workshop took advantage of expertise within the membership of ISAAC Steering Committee to co-host a one day Postgraduate Seminar on Asthma and Allergic Disorders but included other respiratory disorders eg SARS. Kenya was honored to host this Seminar which was extremely well received by participants. Currently Joseph is the Technical Advisor for (TB) CDC/ Global AIDS Program in Kenya.

Joseph is married to Dr Phoebe Odhiambo who teaches Microbiology at the University of Nairobi, the couple is blessed with 3 children –Jackline (Pharmacy student, University of Nairobi), Andrew (Aeronautical Engineering student) and, last born, Patricia plans to study Business Management

Centre Respiratory Diseases Research (CRDR) unit
Kenya medical Research Institute (KMRI) Nairobi
KENYA
Africa/Anglophone

ISAAC PROFILE



Professor Javier Mallol was born and grew up in Santiago, the capitol city of Chile with about 5.000.000 inhabitants and located just at the foot of the Andes Cordillera. He went to medical school and after graduation he did a Fellowship in Pediatrics and then in Pediatric Pulmonology. He also did a Fellowship of Clinical Research in Thoracic Medicine at the Professorial Department of Thoracic Medicine, in the Royal's Children Hospital, Melbourne, Australia. Since 1993 he works at the Department of Pediatric Respiratory Medicine of the University of Santiago de Chile and since 1995 he is Professor of Pediatrics and Pediatric Pulmonology and also the Director of the Department that is located at the Hospital CRS El Pino in South Santiago (www.usach.cl/mri).

He is continuously collaborating with several health institutions and international respiratory societies which has provided him with the great opportunity of working in both developed and developing world. He actually works in the clinical setting looking after respiratory patients and doing procedures of his specialty (lung function in children and infants, bronchoscopies, etc.) and is also involved with clinical research: wheezing in infants, asthma, pulmonary function, aerosoltherapy, chronic lung damage. The many activities Javier Mallol is involved with would not have been possible without the generous, friendly and strong support of his team of pediatric pulmonologists : Drs Luis Barraueto, Viviana Aguirre, Pedro Aguilar and Eliana Cortez, all of them also close collaborators of ISAAC in Latin America as those many good friends working in the other countries of this region.

He has the privilege to spend some good time fishing and painting but what he enjoys most is going with his family to the south of the country in summer, to the cold rain forest and get in deep touch with that magnificent nature, or just stay together cooking a nice seafood. He also loves adventures and some years ago participated as co-driver in a race-motor in some remote and beautiful island in the south pacific ocean. That was a wonderful time but also frightening due to the audacity of the driver that used to close her eyes and release the steering wheel while smiling and singing " we are the champions...". Although they did not win that day they were awarded with the honour to participate again on the next day but he had to decline because health reasons likely related with acute adrenaline depletion. Nowadays, some of his close friends have sometimes noticed a small but generalized tremor every time he talks about that wild race. It could be difficult to believe after seeing the photos of him doing bungee-jumping in Nepal. That race must have been a terrifying experience for anyone.

But life is not just fun and now Professor Mallol is devoted to his lastest project related to improve self-esteem of children suffering from chronic lung damage with the help of a marvellous team composed by psychologists, actresses, and teachers. A new non- conventional therapeutic aid for those great and brave kids.

ISAAC Regional Coordinator for Latin America
Department of Pediatric and Respiratory Medicine
University of Santiago de Chile (USACH)
CHILE

ISAAC Phase I Publications

Professor Neil Pearce

ISAAC Phase One Publications Coordinator
ISAAC Executive
E-mail: n.e.pearce@massey.ac.nz

1.0 Preliminary Papers

- 1.1 ISAAC Phase One Manual. 2nd ed. Auckland and Münster: ISAAC Steering Committee, 1993.
- 1.2 Pearce NE, Weiland S, Keil U, Langridge P, Anderson HR, Strachan D, Bauman A, Young L, Gluyas P, Ruffin D, Crane J, Beasley R. Self-reported prevalence of asthma symptoms in children in Australia, England, Germany and New Zealand: an international comparison using the ISAAC written and video questionnaires. *Eur Resp J* 1993; 6: 1455-61.
- 1.3 Asher I, Keil U, Anderson HR, Beasley R, Crane J, Martinez F, Mitchell EA, Pearce N, Sibbald B, Stewart AW, Strachan D, Weiland SK, Williams HC. International study of asthma and allergies in childhood (ISAAC): rationale and methods. *Eur Resp J* 1995; 8: 483-91.

2.0 Main Findings

- 2.1 Strachan D, Sibbald B, Weiland S, Ait-Khaled N, Anabwani G, Anderson HR, Asher MI, Beasley R, Björkstén B, Burr M, Clayton T, Crane J, Ellwood P, Keil U, Lai C, Mallol J, Martinez F, Mitchell E, Montefort S, Pearce N, Robertson C, Shah J, Stewart A, Von Mutius E, Williams H. Worldwide variations in prevalence of symptoms of allergic rhinoconjunctivitis in children: The International Study of Asthma and Allergies in Childhood (ISAAC). *Paediatric Allergy Immunology* 1997; 8: 161-76.
- 2.2 ISAAC Steering Committee (Writing Committee: Beasley R, Keil U, Von Mutius E, Pearce N). Worldwide variation in prevalence of symptoms of asthma, allergic rhinoconjunctivitis and atopic eczema: ISAAC. *Lancet* 1998; 351: 1225-32.
- 2.3 Williams H, Robertson C, Stewart A, Ait-Khaled N, Anabwani G, Anderson HR, Asher MI, Beasley R, Björkstén B, Burr M, Clayton T, Crane J, Ellwood P, Keil U, Lai C, Mallol J, Martinez F, Mitchell E, Montefort S, Pearce N, Shah J, Sibbald B, Strachan D, von Mutius E, Weiland S. Worldwide variations in the prevalence of symptoms of atopic eczema in the international study of asthma and allergies in childhood. *J Allergy Clin Immunol* 1999; 103: 125-38.
- 2.4 ISAAC Steering Committee (Writing Committee: Asher MI, Anderson HR, Stewart AW, Crane J). Worldwide variations in the prevalence of asthma symptoms: International Study of Asthma and Allergies in Childhood (ISAAC). *Eur Respir J* 1998; 12: 315-35.

3.0 Other Overview Papers

- 3.1 Asher MI, Weiland SK, on behalf of the ISAAC Steering Committee. The International Study of Asthma and Allergies in Childhood. *Clin Exper Allergy* 1998; 28 (suppl 5): 52-66.
- 3.2 Beasley R, Ellwood P, Asher I. International patterns of the prevalence of pediatric asthma the ISAAC program. *Pediatric Clinics of North America* 2003; 50(3):539-53.
- 3.3 Lai C, Pearce N. The contribution of ISAAC to the understanding of asthma. *Leukotriene Res & Clin Rev* 2001; 2: 1-4.
- 3.4 Mallol J, Asher MI, Williams H, Clayton T, Beasley R. ISAAC Findings in children aged 14 years: an overview. *Allergy Clin Immunol Int* 1999; 11: 176-82.
- 3.5 von Mutius E. Epidemiology of asthma: ISAAC--International Study of Asthma and Allergies in Childhood. *Pediatr Allergy Immunol* 1996; 7(9 Suppl): 54-6.

ISAAC Phase I Publications

4.0 Ecologic Analyses

- 4.1 Anderson R, Beasley R, David Strachan, Colin Robertson C, and the ISAAC Phase I Study Group. Mortality and hospitalisation rates. In preparation.
- 4.2 Anderson HR, Poloniecki JD, Strachan DP, Beasley R, Björkstén B, Asher MI. ISAAC Phase I 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.
- 4.3 Anderson HR and the ISAAC Phase I Study Group. Air pollution and asthma prevalence. In preparation.
- 4.4 Asher I, et al. Overview of findings of ISAAC Phase I ecologic analyses. In preparation.
- 4.5 Burr ML, Emberlin JC, Treu R, Cheng S, Pearce N, and the ISAAC Phase I Study Group. Pollen counts in relation to the prevalence of rhinitis and asthma in the International Study of Asthma and Allergies in Childhood (ISAAC). *Clin Exper Allergy* 2003; 33: 1675-80.
- 4.6 Ellwood P, Asher MI, Björkstén B, Burr M, Pearce N, Robertson CF and the ISAAC Phase One Study Group. Diet and asthma, allergic rhinoconjunctivitis and atopic eczema symptom prevalence: an ecological analysis of the International Study of Asthma and Allergies in Childhood (ISAAC) data. *Eur Respir J* 2001; 17: 436-43.
- 4.7 Foliaki S, Björkstén B, Kildegaard-Nielsen S, von Mutius E, Cheng S, Pearce N. Antibiotic sales and the prevalence of symptoms of asthma, rhinitis and eczema in 13-14 year old children: The International Study of Asthma and Allergies in Childhood (ISAAC). *Int J Epidemiol* 2004; 33: 558-63.
- 4.8 Mitchell EA, Stewart AW, on behalf of the ISAAC Phase One Study Group. The ecological relationship of tobacco smoking to the prevalence of symptoms of asthma and other atopic diseases in children: The International Study of Asthma and Allergies in Childhood (ISAAC). *Eur J Epidemiol* 2002; 17: 667-73.
- 4.9 Shirtcliffe P, Weatherall M, Beasley R, on behalf of the ISAAC Phase I Study Group. An inverse correlation between estimated tuberculosis notification rates and asthma symptoms. *Respirology* 2002; 7: 153-5.
- 4.10 Stewart AW, Mitchell EA, Pearce N, Strachan DP, Weiland SK, on behalf of the ISAAC Steering Committee. The relationship of per capita gross national product to the prevalence of symptoms of asthma and other atopic diseases in children (ISAAC). *Int J Epidemiol* 2001; 30: 173-9.
- 4.11 von Mutius E, Pearce N, Beasley R, Cheng S, von Ehrenstein O, Björkstén B, Weiland S, on behalf of the ISAAC Steering Committee. International patterns of tuberculosis and the prevalence of symptoms of asthma, rhinitis and eczema. *Thorax* 2000; 55(6): 449-453
- 4.12 Weiland SK, von Mutius E, Hüsing A, Asher MI on behalf of the ISAAC Steering Committee. Intake of trans fatty acids and prevalence of childhood asthma and allergies in Europe. *Lancet* 1999; 353: 2040-41.
- 4.13 Weiland S, Hüsing A, Strachan DP, Pearce N, on behalf of the ISAAC Study Group and ISAAC Europe. Climate and the prevalence of symptoms of asthma, allergic rhinoconjunctivitis and atopic eczema in children. *Occup Environ Med* 2004; 61: 609-15.

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

Professor Neil Pearce

ISAAC Phase One Publications Coordinator
ISAAC Executive
E-mail: n.e.pearce@massey.ac.nz

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*, in press.

Antibiotic sales and the prevalence of symptoms of asthma, rhinitis, and eczema: The International Study of Asthma and Allergies in Childhood (ISAAC)

Foliaki S, Kildegaard Nielsen S, Björkstén B, von Mutius E, Cheng S, Pearce N, and the ISAAC Phase I Study Group

Background: It has been hypothesized that antibiotic use early in life may increase the subsequent risk of asthma. We have conducted an ecologic analysis of the relationship between antibiotics sales and the prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and atopic eczema in 99 centres from 28 countries.

Methods: Data for antibiotics sales for 28 countries were obtained from the Institute for Medical Statistics (IMS), Health Global Services, UK and converted to defined daily doses (DDD). Data on the prevalence of symptoms of asthma, rhinitis, and eczema in 13-14 year olds were based on the responses to the written and video questionnaires from the International Study of Asthma and Allergies in Childhood (ISAAC). The analysis was adjusted for gross national product (GNP) as an estimate of the level of affluence.

Results: In general, there was a positive association between per capita antibiotics sales and the prevalence of symptoms for asthma, rhinitis, and eczema, but the associations generally became negative once the analyses had been adjusted for GNP. In particular, there were non-significant negative associations between total antibiotics sales and the prevalence of wheeze ever, wheeze in the last 12 months, nose problems with itchy-watery eyes, itchy rash in the last 12 months, and eczema ever. On the other hand there were weak non-significant positive associations for asthma ever, nose problems ever, nose problems in the last 12 months, and itchy rash ever. There was a statistically significant positive association with wheeze at rest as measured by the asthma video questionnaire; however, even this association was weak and would not account for more than a 1% difference in asthma prevalence between countries.

Conclusions: These findings are generally not consistent with the hypothesis that antibiotic use increases the risk of asthma, rhinitis, or eczema. If there is a causal association of antibiotic use with asthma risk, it does not appear to explain the international differences in asthma prevalence.

Keywords: Allergies, asthma, children, ecological, eczema, rhinitis, wheeze, antibiotics, ISAAC

Int J Epidemiol; 2004; 33(3).

Climate and the prevalence of symptoms of asthma, allergic rhinitis, and atopic eczema in children

Weiland, S K¹; Hüsing, A²; Strachan, D P³; Rzehak, P¹; Pearce, N⁴; and the ISAAC Phase One Study Group

¹Department of Epidemiology, University of Ulm, Ulm, Germany

²Department of Medical Informatics, Biometrics und Epidemiology, University of Bochum, Germany

³St George's Hospital Medical School, London, UK

⁴Massey University, Wellington, New Zealand

Correspondence to: Prof. Dr. med. S Weiland Department of Epidemiology, University of Ulm, Helmholzstr. 22, 89081 Ulm, Germany; stephan.weiland@medizin.uni-ulm.de

Accepted 28 November 2003

The study was funded in part by the Innovative Medizinische Forschung (IMF) programme (WE-1-1-II/96-3) of the University of Münster, Germany

Abstract

AIMS: To investigate the association between climate and atopic diseases using worldwide data from 146 centres of the International Study of Asthma and Allergies in Childhood (ISAAC).

METHODS: Between 1992 and 1996, each centre studied random samples of children aged 13-14 and 6-7 years (approx. 3000 per age group and centre) using standardised written and video questionnaires on symptoms of asthma, allergic rhinoconjunctivitis, and atopic eczema during the past 12 months. Data on long term climatic conditions in the centres were abstracted from one standardised source, and mixed linear regression models calculated to take the clustering of centres within countries into account. **RESULTS:** In Western Europe (57 centres in 12 countries), the prevalence of asthma symptoms, assessed by written questionnaire, increased by 2.7% (95% CI 1.0% to 4.5%) with an increase in the estimated annual mean of indoor relative humidity of 10%.

Similar associations were seen for the video questionnaire and the younger age group. Altitude and the annual variation of temperature and relative humidity outdoors were negatively associated with asthma symptoms. The prevalence of eczema symptoms correlated with latitude (positively) and mean annual outdoor temperature (negatively). **CONCLUSIONS:** Results suggest that climate may affect the prevalence of asthma and atopic eczema in children.

Submitted ISAAC Publication

Submitted to the IJTL (International Journal of Tuberculosis and Lung Disease) August 2004

Ellwood P, Asher MI, Beasley R, Clayton TO, Stewart AW on behalf of the ISAAC Steering Committee. The international study of asthma and allergies (ISAAC); Phase Three Rationale and Methods

ISAAC COLLABORATORS AT THE ERS

To all ISAAC Collaborators who are attending the ERS Symposium in Glasgow

ASSEMBLY SYMPOSIUM - Sunday 5th September 2004

ISAAC and ECRHS - WHAT HAVE THEY TAUGHT US?

Organizer(s): Zorica Zivkovic, Belgrade, Serbia and Montenegro
Jimmy Paton, Glasgow, Scotland
Isabella Annesi-Maesano, Villejuif

Paediatrics
Epidemiology

Target audience:

Paediatricians, Paediatric Pulmonologists, Allergologists, Epidemiologists

Aims:

Phases 2 and 3 of ISAAC (the International Study of Asthma and Allergies in Childhood) and from ECRHS () have provided us with important insights into asthma, allergy and COPD in children and adults.

Chairs: Dr Christopher K Lai
Professor Steven Holgate

- 1) Global variations and time trends in asthma and allergy in children.
“What has ISAAC told us?” - Professor Innes Asher
- 2) Risk factors for asthma and atopy in children.
“ Which is the chicken and which the egg ?” - Professor Stephan Weiland
- 3) Global variations and time trends in asthma and allergy.
“Findings and interpretation of ECRHS.” - Professor Peter Burney
- 4) Risk factors of asthma and atopy.
”The ECRHS perspective and relation to ISAAC” – Professor David Strachan

ISAAC and ECRHS CONCLUDES AT 16.45

ISAAC Collaborators Function 17.00 – 18.30

I would like as many of us as possible to get together after the Symposium on Sunday 5th September 2004, at 17.00 – 18.30. This is a great opportunity to celebrate the achievements and hard work you have all put into ISAAC.

“Well Done”

I look forward to seeing you all after the ISAAC Symposium. (Details next page)

Innes Asher



ISAAC International Study of Asthma and Allergies in Childhood

To all ISAAC Collaborators who are attending the ERS in Glasgow:

You are warmly invited to a buffet reception immediately following the ERS Assembly Symposium on Sunday 5th September 2004. Please see the details below.

This will be a great opportunity to celebrate the achievements and hard work you have all put into ISAAC. I look forward to seeing you all in Glasgow.

Innes Asher, Chair of ISAAC

Sunday 5th September 2004, 14.45 – 16.45

ERS ASSEMBLY SYMPOSIUM

ISAAC AND ECRHS – What have they taught us?

Sunday 5th September 2004, 17.00 – 18.30

ISAAC COLLABORATORS RECEPTION

Drinks and buffet meal

At

**City Café Hotel City Inn
Finnieston Quay
Glasgow G3 8HN**

**(Located on the riverside, east of car park 1,
a few minutes walk from the Congress Centre)**

**WELCOME To the ISAAC team in Neuquen, Argentina,
Directed by Dr Gustavo Zabert**



Their names are from left to right

Stand: Francisco Videla, Marcelo Enriquez, Martín Jiménez, Juan Pablo Delfino, Evelyn Schonhoff, Patricia Prieto, Cecilia Perez Serafini, Laura García, Angélica Moraga, Marcelo Cecchini, Mariano, Gustavo Zabert (opps... that's me).

Seated: Juan José Lopez Luro, César Gonzalez, Oscar Lopez, Pablo Losada, Cyntia Macario, Susana Ortiz, Vanesa Saavedra.

Food for thought: How can ISAAC help?

Poem from the book entitled “Sing Song”

Author Anne Kennedy,

“And effect”

“.....In two weeks she’s an exhausted wreck
the smiling baby gone, the former
marine biologist who studied duckweed

and its relationship to duck-pleasure
the astrophysicist who talked in
astronomical units (150 million odd ks,
the average distance between

the earth and sun) and spoke
lovingly of light-and dark. Anyway
she’s on a sickness benefit. Who was
a sociologist like the Ritchies watching

Peacock displays of suburban neurosis
testament of a jumping boy at
the sharp end of the twentieth century
behaviours of the soft and hard toys

sacred rituals of food and of drink
set out in graph from
and Auckland sieved through a Toyota waka.
Viewing it, part of it, her method

All changed. Her world now her skin.
The Maori-Pakeha girl the colour of
wounds. She’s torn open all over
by her own nails, lives in a frenzy

Of concentrated itching, infected
Like a cat after a night fighting.
She’s tired beyond endurance, sleeps
only when more exhausted than itchy.....”

Published 2003 Auckland University Press

<http://www.nzbookcouncil.org.nz/writers/kennedyanne.htm>

<http://www2.auckland.ac.nz/aup/books/kennedy-singsong.html>



ISAAC would like to congratulate Anne Kennedy for her outstanding achievement in receiving the 2004 Montana New Zealand Book Awards for Poetry for “Sing Song”

WELL DONE