Global Strategies to Combat the Allergic Diseases Burden

How to “Finnish” allergy?

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Allergy 2009

Biodiversity hypothesis

Hygiene hypothesis – microbial deprivation hypothesis – biodiversity hypothesis

“A public health emergency in slow motion”
UN Secretary General

Asthma and allergy
IBD, coeliac disease
Neurological diseases
Obesity, diabetes, cancer, depression

Costs!
Non-communicable diseases (NCDs)

Human immune defence – a mixture of routine and innovation!

Risk Ratio

Mean subjective symptom score 20 years apart (scale 0 - 5)

RHINASTHMA:
Quality of Life measured after 20 years:
SPT pos. = 17.4, SPT neg. = 20.7 (scale 0 - 100)

No law of symptom escalation!

Finnish Reference Programme:
The Early Steps

Hypersensitivity – Allergy - Atoxy
Finnish Reference Programme: The Expert Group making the action plan (22 members)

- Tari Haahtela (card., pneum. medicine)
- Matti Hannukela (dermat., immunology)
- Leena v Hertzén (secretary, microbiology)
- Marina Ehola (public health)
- Minna Kaala (pediatrician)
- Riitta Kauppinen (NGO, FELHA)
- Lola Kiliöström (NGO, asthma & allergy)
- Timo Klassikka (public health insurance)
- Krista Korhonen (primary care)
- Antti Lauerma (dermatology)
- Jan Lindgren (NGO, FELHA)
- Satu Lähteinen (singing)
- Mika Makela (pediatrician)
- Peri Paakkinen (NGO, lung)
- Jaba Pekkanen (pediatrician)
- Anne Pirttilahto (pneumology medicine)
- Anneli Poura (public health)
- Elina Toskala (ENT)
- Outi Vaarala (immunology)
- Erkki Valovirta (pediatrician)
- Erkki Vartiainen (public health)
- Petra Vidgren (pharmacy)

All the major stakeholders were included to ensure commitment

Finnish Reference Programme: Organisational structure for implementation

- Multidisciplinary Counselling Group of 22 members
- Allergy Programme Secretariat of 10 members (chair:TH)
- NGO: 1) Asthma & Allergy, 2) Keep Health, 3) Skin to increase awareness, communicate with and educate allergic people and general public
- Ministry (Social Affairs and Health), National Institute for Health and Welfare to give support and kick-off finance (55 000 €/year 2008-2019)

Finnish Reference Programme: Key Messages

- Endorse health, not allergy.
- Strengthen tolerance.
- Adopt a new attitude to allergy. Avoid allergens only if mandatory
- Recognize and treat severe allergies early. Prevent attacks/exacerbations
- Improve air quality. Stop smoking.

Allergy Health!

Finnish Reference Programme: How do the treatment chains (processes) work?

- Asthma
  - Nurses: 7,8
  - Doctors: 6,6
- Asthma in children
  - Nurses: 7,7
  - Doctors: 6,8
- Food allergy
  - Nurses: 7,2
  - Doctors: 5,9
- Specific immunotherapy
  - Nurses: 7,6
  - Doctors: 5,4
- Need for allergy training
  - Nurses: 9,1
  - Doctors: 9,0

Scale 4-10

Allergy Health!

What professionals think of the messages?

- Endorse health, not allergy.
  - Nurses: 8,8
  - Doctors: 9,2
- Strengthen tolerance.
  - Nurses: 8,7
  - Doctors: 9,1
- Adopt a new attitude to allergy. Avoid allergens only if mandatory
  - Nurses: 8,7
  - Doctors: 9,3
- Treat severe allergies early.
  - Nurses: 9,2
  - Doctors: 9,5
- Prevent attacks/exacerbations
  - Nurses: 9,6
  - Doctors: 9,6

Scale 4-10

Allergy Health!

What allergic people think of the messages?

Not allergic

- Support health, not allergy.
- Avoid exposure to the worst approach
- Avoidance of exposure in the best approach
- Personal allergy knowledge
- Help baskets
- Help with health guidance
- Personalised action plan
- Personalised action plan on computer
- Internet-based Gallup 2011

Psoriasis & diabetes, recent data:

- Nurses: 8,2
- Doctors: 9,1

Health, 3)

Scale 4-10

Opinion leaders, specialists, health care and other professionals: 3-step education
- Launch for 21 Central Hospitals (5 Univ. Hospitals), 2 hours
- Large Health Centres, half a day
- Back to Central Hospitals, Allergy Day

2. Allergic people, with the help of patient organisations (allergy & asthma, skin, lung health) – survey 2011

3. General population

Allergy Health!

Finnish Reference Programme: Goals

- Prevent allergies.
  - Indicator: prevalence of asthma, allergic rhinitis and atopic dermatitis reduced by 20%.
- Increase tolerance to allergens in the population.
  - Indicator: avoidance diets in foods decrease by 50%.
- Improve allergy diagnostics.
  - Indicator: all patients are treated in a quality certified allergy testing center.
- Reduce work related allergies.
  - Indicator: work related reduce by 50%.
- Focus to severe allergies and reduce attacks.
  - Indicator: “Good Allergy Care” employed, asthma emergencies reduced by 40%.
- Reduce costs caused by allergies.
  - Indicator: total costs of allergic diseases reduced by 20% in 10 years.

Finnish Reference Programme: Practice advice to build-up and improve tolerance

Primary prevention
- Support breastfeeding. Solid foods from 4 months.
- Do not avoid environmental exposure unnecessarily (e.g. foods, pets).
- Strengthen immunity by increasing connection to natural environments.
- Strengthen immunity by regular physical exercise.
- Strengthen immunity by healthy diet e.g. traditional Mediterranean or Baltic type.
- Use antibiotics only for true need.
- Probiotic bacteria in fermented food or other preparations may strengthen immune function.
- Do not smoke.
- Prevent smoking increases asthma risk in children.

Secondary and tertiary prevention
- Regular physical exercise is anti-inflammatory.
- Healthy diet is anti-inflammatory.
- Probiotic bacteria in fermented food or other preparations are anti-inflammatory.
- Allergen specific immunotherapy:
  - allergen as a vaccine.
  - sublingual tablets or drops (e.g. eucalyptus, ficus baccarum).
- H1 and H2 blockers/respiratory/skin inflammation with medication.
- Find treatment for long-term control.
- Do not smoke.
- Avoid foods and allergy drugs do not harm follicles & thumbs.
To tools for professionals
New Guidelines for Allergy in Children

Eija J. Makitalo, ym.
The challenge of relying the right public health message in allergy. PAI 2010, Finland

Annika Parkkari, ym.
Allergy in children: practical recommendations of the Finnish Allergy Programme 2008–2010 for prevention, diagnosis and treatment. PAI 2010

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Finnish Reference Programme: Tools
4. New process to diagnose occupational asthma — to improve diagnostic labeling
6. Short guide for allergy diets for 1) day care, and 2) schools (2012) — to reduce unjustified allergy diets.

Finnish Reference Programme: Costs in 10 years
- Prevent allergies.
  - Include: prevalence of asthma, allergy rhinitis and atopic dermatitis reduced by 20%.
  - No new cases, but several follow-up ongoing initiatives continued, Finland study.
- Increase tolerance to allergens in the population.
  - Include: avoidance diets to reduce frequency by 30%.
- Allergies and to schools — 30%, to day care centres — 20%, large variation in the country.
- Improve allergy diagnostics.
  - Include: all patients are treated in a quality certified allergy testing centre.
- Yes, we are half way, 32 public health testing centers and told and certified.
- Reduce work related allergies.
  - Include: true values reduced by 50%.
- Unintentional asthma deaths by 30% (2009 vs. 2010).
- Reduce costs caused by allergies.
  - Include: total costs of allergic diseases reduced by 30% in 10 years.
  - Allergy total costs €198 and €705 (2007 vs. 1998 and 2005). Next steps all allergy costs.

Suggestion!
Global Allergy Plan (GAP)
Reduce burden, promote health, support allergic people!

Background
- Allergy strategy, attack and work of population-level, loss of productivity.
- EPIDEMIOLOGY
- Prevalence, morbidity, healthcare costs.
- BACKGROUND
- New body of knowledge.
- ECONOMY
- Costs.

4-Step Action Plan
- CONCLUSIONS
- Public health guidelines.
- Need for broad consensus.
- Need for action.
- Identification of key stakeholders.
- Focus strategies.
- Focus on severe allergies to stop attacks.
- Focus on effective use of available resources.

- STRATEGIC CHOICES
- Practical action plan, not a common report.
- Strategies for a three dimensional, general approach.
- Quantitative and qualitative costs.
- Focus on primary health care and health services.
- Prevention of allergy
- Asthma
- Atopic Dermatitis
- Anaphylaxis
- Global Guidelines for Asthma.
- National guide to reduce the burden.
- Tools to help health professionals.
- Focus on relevant themes.
- Time-based

- GOALS
- Enhance GAP
- 1.0 key messages for the public
- 2.0 strategies for Health Care
- Tools to reduce health burden.

- ACTIVITIES
- Education, advocacy, promotion, and research.
- GP participation, sustained commitment.
- Strategic direction, policy and legislation.
- Education and public awareness.

Process evaluation
Outcome evaluation

Figure 3. Total asthma costs 1987–2010. True costs in red. The max annual theoretical costs in blue and min costs in gray.


Four Years of the Finnish Programme

The Finnish Allergy Programme 2006–2010 — scientific rational and practical implementation.

The Finnish Allergy Programme 2006–2010 was launched in 2010, and its goal was to improve the management of allergic diseases in Finland. The programme was based on a strategic action plan to reduce the burden of allergic diseases and improve the quality of life for allergic people. The programme aimed to achieve its goals through a multi-disciplinary approach involving patients, healthcare providers, and other stakeholders. It included several initiatives and actions, such as improving diagnosis and treatment, enhancing patient education, and promoting research and development.

The programme was successful in achieving many of its goals, including a reduction in the prevalence of allergic diseases, an improvement in diagnostic accuracy, and a decrease in medical costs. It also led to a better understanding of the underlying mechanisms of allergic diseases, which helped to guide future research and treatment strategies. The programme also served as a model for other countries to follow, and it demonstrated the importance of a coordinated approach to managing allergic diseases.