

TRAINING FOR THE HEALTH SECTOR

[Date ...Place ...Event...Sponsor...Organizer]

儿科环境病史：卫生保健提供者的工具

Children's Health and the Environment

WHO Training Package for the Health Sector

World Health Organization

www.who.int/ceh

学习目的

- ❖ 认识并理解获取儿科环境病史的重要性
- ❖ 回顾基于环境问题的问卷中儿童环境健康的基本概念
- ❖ 思考在什么时候、什么地方，以及怎样获得儿科环境病史-搜集简明或更详细的信息
- ❖ 评估获得儿科环境病史的潜在困难，考虑怎样克服这些困难
- ❖ 提高发展、记录和使用儿科环境病史的能力和专业知识

- ❖ 简介与背景
- ❖ 什么是儿科环境病史（PEH）？
- ❖ 涉及的主要方面
- ❖ 发展和使用PEH
- ❖ 谁来获得PEH？时间和方式？
- ❖ 获得PEH的困难
- ❖ 案例学习



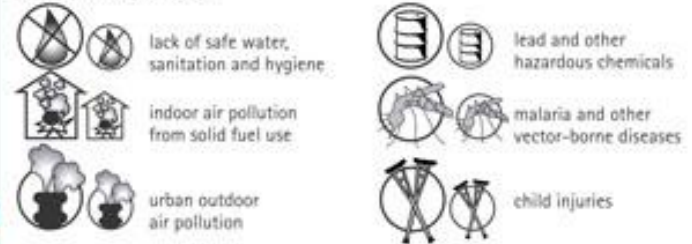
简介与背景

- ❖ 儿童疾病与环境之间的关系
- ❖ 儿童对环境威胁的特殊易感性
- ❖ 环境威胁存在于儿童生活、学习、玩耍和工作的所有地方
- ❖ 影响发生在生命早期，但在儿童期……或者成年期才表现出来
- ❖ 卫生保健提供者在儿童环境健康中扮演着重要的角色

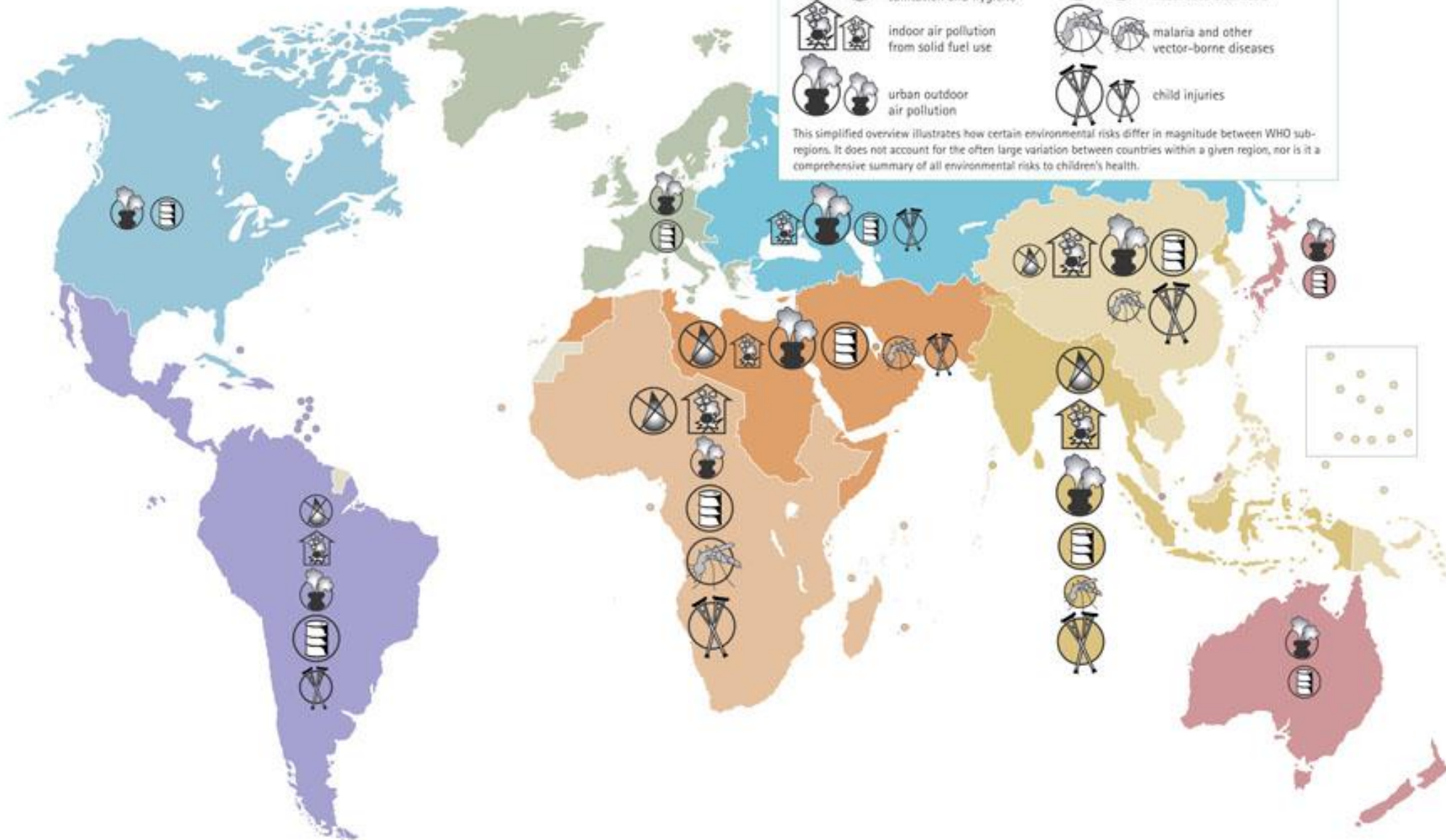
Traditional Hazards, New Risks

Environmental health risks

Sized according to significance of risk
2002 by WHO sub-region



This simplified overview illustrates how certain environmental risks differ in magnitude between WHO sub-regions. It does not account for the often large variation between countries within a given region, nor is it a comprehensive summary of all environmental risks to children's health.



卫生保健提供者的关键角色：

- ❖ 识别环境危险因素对儿童健康造成的临床、亚临床和潜在的影响
- ❖ 理解其作用机制
- ❖ 完整获取和记录暴露史
- ❖ 为研究和知识换代做贡献
- ❖ 向社区和决策者传播信息

- ❖ 一种工具，用来：
 - ❖ 识别和评估儿童暴露
 - ❖ 对治疗和预防措施做出反应
 - ❖ 增加知识库
- ❖ 一次互动的机会：
 - ❖ 父母、家庭和社区
 - ❖ 同事 - 临床工作者、护士和卫生保健提供者
 - ❖ 环境专家、研究人员和教育家
 - ❖ 决策者和政策制定者



WHO

什么是儿科环境病史？

- ❖ 一组基础、简明的问题
- ❖ 标准病历的补充部分
 - ❖ 一般
 - ❖ 特殊
 - ❖ 年龄、性别相关
- ❖ 根据当地情况、需要和能力进行调整：
 - ❖ 工业化国家
 - ❖ 发展中国家



涉及的主要方面

1. 潜在的环境威胁是什么？
2. 儿童暴露的方式、时间和地点
3. 主要的影响是什么？



涉及的主要方面

1. 潜在的环境威胁是什么？

❖ 物理的

❖ 辐射、噪音、极热/冷、非安全建筑物、交通，……

❖ 化学的

❖ 杀虫剂、溶剂、铅、水银，……

❖ 生物的

❖ 疾病媒介、霉、 毒，…

涉及的主要方面

2. 儿童暴露的方式、时间和地点

- ❖ 他们停留过的地方
- ❖ 通过媒介产生或携带
- ❖ 活动造成的结果
- ❖ 由于他们的行为动作

涉及的主要方面

3. 主要影响是什么？

❖ 考虑 “易感窗口”

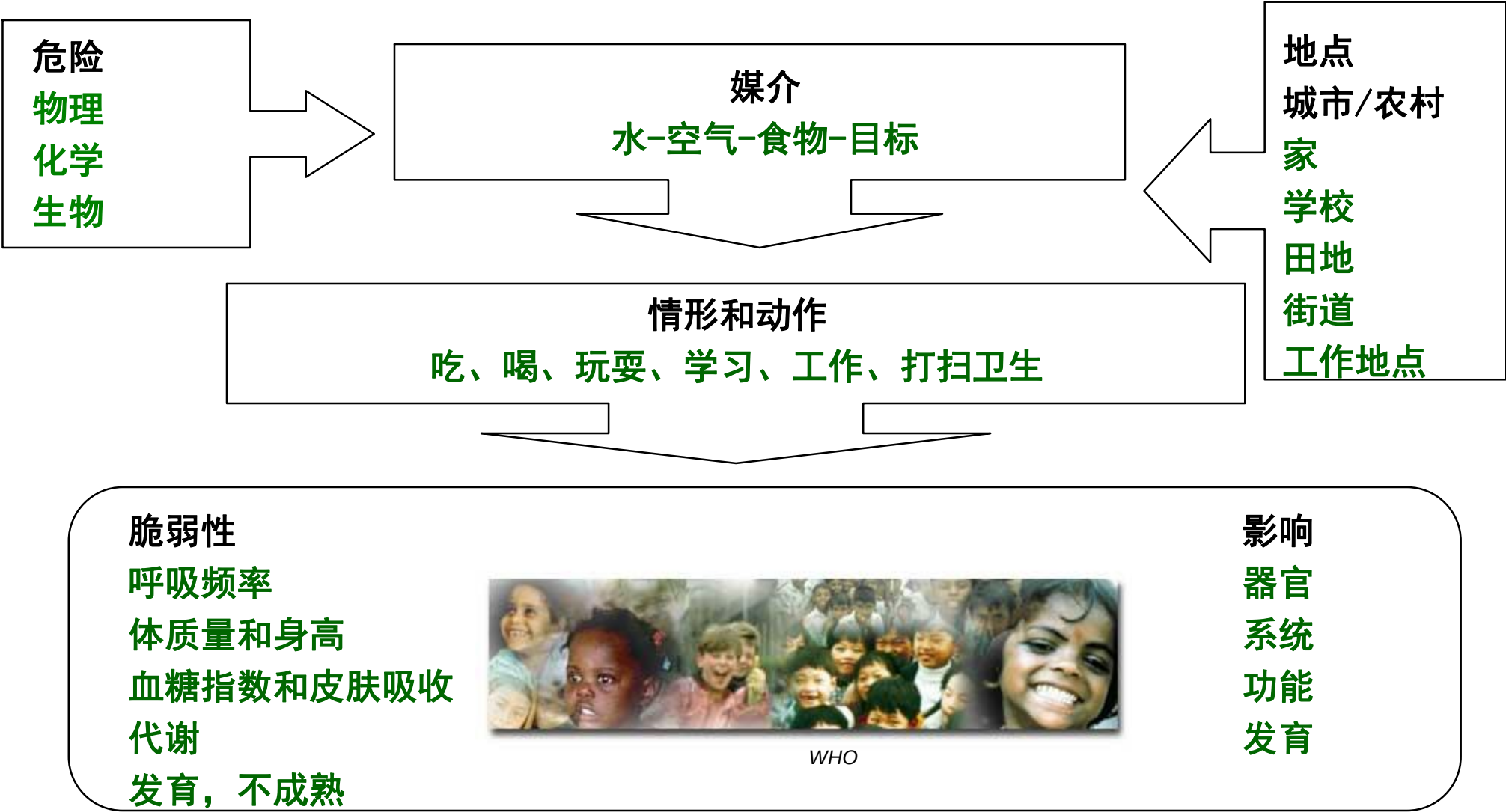
孕前、宫内、出生后、婴儿、儿童和青少年

❖ 临床和亚临床影响

- 器官和系统
- 功能
- 发育



儿童的复杂环境



发展和使用PEH

- ❖ 准备一些本地的问题
- ❖ 考虑
 1. 潜在的环境威胁-包括多因素暴露
 2. 儿童/青少年是怎样暴露的?
 3. 健康和发育影响
 4. 基因易感性
 5. 心理社会和社会经济因素
- ❖ 解决公共卫生问题
- ❖ 协调-本地和国际范围内

谁来获取PEH?

取决于卫生保健系统和可利用的资源:

- ❖ 儿童医生、家庭医生、初级卫生保健提供者、“一线”护士、居民、其他
- ❖ 社会工作者、环境部门官员，或者经过特别培训的专家

谁来获取PEH?

可能是卫生保健系统中的一个“新”的专业?

到家里和学校随访的“环境和健康”部门官员记录所见所闻，与父母交谈，与教师讨论，向卫生保健提供者传播知识，将绿页（green page）保留在案例中.....



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获得PEH时间和方式

- ❖ 有症状或无症状的儿童
- ❖ 从最基础的问题开始
- ❖ 特殊案例要详细询问
- ❖ 明确针对父母、儿童、看护者和老师的特殊问题的提问形式
- ❖ 包括家/学校/操场的审核
- ❖ 临床记录里的绿页（green page）

Paediatric Environmental History



CHILDREN'S ENVIRONMENTAL INFORMATION- "GREEN PAGE" (Draft May 04)

Patient's name:		Address:	Date:	Case record (number):
Sex:	Date of birth:	Professional recording data (name & position):		
With whom does the child live?		Living environment:	Other data:	
Is he/she working?		- Rural - Urban - Peri-Urban		
BUILDING: - Home - School or child-care - Recreation place - Community				
GEOGRAPHICAL AREA				
FOOD				
AIR QUALITY				
WATER QUALITY				
SOIL TYPE AND QUALITY				
EXCRETA DISPOSAL				
SOLID WASTE DISPOSAL				
NOISE				
CHEMICALS				
TRAFFIC				

Does the mother/care giver express concerns about the environment? Which ones? Why?
Are there any well-known environmental risk factors in the area? Which ones?
Mother's and father's occupation
Is there exposure to venomous/poisonous animals?
Are there pet animals at home and in the surroundings? Which ones?
Are there vectors of disease? Which ones?
Is there exposure to extreme temperatures? Describe
Has the child suffered traffic-related injuries? Describe
Has the child suffered fire-related injuries or other? Describe
Has the child been exposed to chemical incidents? Describe
Has the child had poisoning due to chemicals and/or food poisoning? Describe
Observation (other relevant information)



ABC OF THE CHILD'S ENVIRONMENTS - GREEN PAGE (Draft May 04)

	HOME	SCHOOL OR CARE CENTRE	RECREATION AREA	WORKPLACE	COMMUNITY
BUILDING A. Excellent B. Solid C. Poor					
GEOGRAPHICAL AREA A. Low risk B. Medium risk C. High risk					
FOOD (quality & supply) A. Appropriate B. Uncertain C. Contaminated					
AIR A. Clean B. Uncertain C. Contaminated	Indoor				
	Outdoor				
WATER A. Potable B. Uncertain C. Contaminated	Drinking				
	Other uses				
SOIL/FLOOR A. Clean B. Uncertain C. Contaminated					
EXCRETA DISPOSAL A. Appropriate B. Uncertain C. Inappropriate					
WASTE DISPOSAL A. Appropriate B. Uncertain C. Inappropriate					
NOISE A. Low B. Medium C. High					
CHEMICAL EXPOSURE A. Low risk B. Medium risk C. High risk					
TRAFFIC A. Low B. Medium C. High					

PUBLIC SERVICES AVAILABLE:	HOUSING	SCHOOL	COMMUNITY
ELECTRICITY			
COMMUNICATION (PHONE, RADIO, OTHER)			
WASTE COLLECTION			
FINAL WASTE DISPOSAL			
PUBLIC TRANSPORTATION			
PUBLIC LIGHTING			
HEALTH CARE CENTRE			
EXCRETA TREATMENT PLANT			
SEWAGE SYSTEM			
WATER SUPPLY			

Comments:

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"A green page in the clinical record"

WHO



CHILDREN'S ENVIRONMENTAL INFORMATION- "GREEN PAGE" *(Draft May 04)*

Patient's name:		Address:		Date:	Case record (number):
Sex:	Date of birth:	Living environment: - Rural - Urban - Peri-Urban		Professional recording data (name & position):	
With whom does the child live?				Other data:	
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BUILDING: - Home - School or child-care - Recreation place - Community					
GEOGRAPHICAL AREA					
FOOD					
AIR QUALITY					
WATER QUALITY					
SOIL TYPE AND QUALITY					
EXCRETA DISPOSAL					
SOLID WASTE DISPOSAL					
NOISE					
CHEMICALS					
TRAFFIC					

Paediatric Environmental History

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Paediatric Environmental History

PUBLIC SERVICES AVAILABLE:	HOUSING	SCHOOL	COMMUNITY
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PUBLIC TRANSPORTATION			
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HEALTH CARE CENTRE			
EXCRETA TREATMENT PLANT			
SEWAGE SYSTEM			
WATER SUPPLY			

Comments:

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问题举例：儿童生活在哪？

- 建筑是什么材料的（例如，木材、砖、泥土、纸板，……）？
- 墙上有霉菌吗？通风良好吗？有什么气味吗？
- 近期有粉刷或者翻修吗？
- 家庭成员有人在家吸烟吗？抽什么烟？抽多少？
- 室内使用杀虫剂了吗？怎么使用的？有蟑螂吗？小虫子？老鼠？
- 有宠物（狗、猫、鸟）或者其它动物吗？
- 这个地方多久清理一次？用什么化学物品进行清洁？
- 在哪里作饭？做饭的方式是什么？房屋怎么取暖？有火炉吗？有排气装置吗？
[同样适用于操场和学校]

问题举例：儿童有哪些活动？

爱好

绘画-油漆和溶剂？
模型-建造 - 胶和溶剂？
制陶-颜料、油漆？
园艺-杀虫剂？
木工-化学物品？

活动

饮食习惯(饭菜种类、食品质量)
饮用习惯(酒精使用和滥用、软饮料)
玩耍习惯
学习习惯
工作习惯
卫生扫除 (在垃圾边待的时间)
探索
试验 (使用药物、食用不明浆果)

运动

运动种类
运动场地
受伤
毒物接触史
能量药物
使用膏药



问题举例：儿童的行为？

个人卫生和习惯

孩子多久洗一次澡？
洗手和脸了吗？怎么洗的？在哪洗的？
用什么洗的？
定期洗衣服吗？
用什么样式的尿布？
孩子身上有虱子吗？如何治疗的？
孩子在地板上玩耍吗？在地毯上？还是泥土上？
怎样清理孩子的卧室和玩耍的地方？
多久清理一次？
使用何种化学物品来打扫家？
孩子有异食癖吗？

文化史

使用可替代的药品
或化妆品
文化习俗
宗教活动
包括使用化学物品
的其他传统

交通

孩子使用什么交通工具？
-独自还是集体
-自行车
-摩托车
-马或者其它？
-公交车的特征？
-公共汽车站？



WHO



环境危险因素和长期儿童研究

❖化学

❖物理

❖生物

❖社会心理

❖构造环境

❖环境卫生

❖充足营养

❖媒体影响

❖身体行为

❖社会网络 and 参与

❖战争和冲突

❖社会经济改变

❖生命危机

环境相关结局和长期儿童研究

❖ 妊娠结局

❖ 发育障碍

❖ 疾病

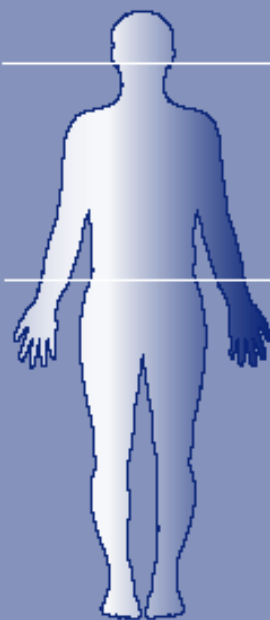
❖ 生长

❖ 认知功能

❖ 性发育

如何做一个有关环境威胁的家庭调查

- ❖ 家
- ❖ 吸烟
- ❖ 饮食、水和食物
- ❖ 工作相关威胁
- ❖ 爱好



PEDIATRIC ENVIRONMENTAL HEALTH

Environmental Alert

- Childhood is a time of rapid growth and development, accompanied by changes in organ system functioning, metabolic capabilities, physical size, and behavior that can dramatically modify potential illness caused by a toxicant.
- Pediatricians and other child health care providers need to develop the expertise necessary to take an environmental history, deliver anticipatory guidance, and conduct appropriate risk-based laboratory tests for environmental illnesses.
- Pediatric Environmental Health Specialty Units are available for consultation and referral. Pediatricians and other child health care providers should be aware of this resource.

This monograph is one in a series of self-instructional publications designed to increase the primary care provider's knowledge of hazardous substances in the environment and to aid in the evaluation of potentially exposed patients. This course is also available on the ATSDR Web site, www.atsdr.cdc.gov/HEC/CSEM/. See page 3 for more information about continuing medical education credits, continuing nursing education units, continuing education units, and continuing health education specialist credits.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Agency for Toxic Substances and Disease Registry
Division of Health Education and Promotion

Pediatric Environmental Health

Table 5. Basic Environmental Database

Name: _____ Date Completed: _____

Address of this home: _____

Date moved in: _____

Parents and other adults in the home: _____

Current jobs of occupants (including how long in job): _____

- Do you think you or a family member have a health problem caused by your home environment?
Yes _____ No _____
- Building type:
_____ Single-family, detached _____ Single-family, condo
_____ Mobile home _____ Multifamily
- Features: Single story _____ Multistory _____ Attached garage _____
- Lowest level of home:
_____ On-grade level _____ Below-grade basement _____ Crawl space _____
_____ Dirt floor _____ Finished floor (material: _____)
- Ownership: _____ Self _____ Other family member _____ Tenant _____
- Year built: _____
Location:
_____ Industrial or agricultural pollution sources nearby (<1 mile) _____ Municipal landfills
_____ Commercial orchards, fields _____ Livestock _____ Underground tanks
_____ Hazardous waste site _____ Industry or business _____
- Does anyone living in the household smoke tobacco products? Yes _____ No _____
If yes, how many smokers at home?
Is there a child in your family exposed to smoke at day care or in cars? Yes _____ No _____
- Have there been renovations, interior decorating, or new furniture in the home in the last 3 years?
Yes _____ No _____

If yes, please describe: _____

Continued on page 65

获得PEH的困难

- ❖ 没有意识到环境因素
- ❖ 缺乏培训和信息
- ❖ 缺少时间
- ❖ 过分发展卫生设施，但缺少人员
- ❖ 缺少资金
- ❖ 缺乏动力
- ❖ 挫折



克服困难获得PEH

- ❖ 将环境病史内容加入到医学和护理的课程里
- ❖ 提升卫生当局意识
- ❖ 强调PEH的价值和重要性
- ❖ 促进家庭/学校环境审查
- ❖ 加强卫生保健系统
- ❖ 将环境病史问题加入到临床记录中

发展和使用PEH

- ❖ 协调-本地和国际-为什么?
 - ❖ 使得数据具有可比性
 - ❖ 促进研究合作
 - ❖ 促进报告生成
 - ❖ 促进交流和经验分享
- ❖ 要求使用一致认同的术语和诊断标准
- ❖ 电子数据录入=生成一个数据库



WHO

哮喘是造成学校旷课的主要慢些疾病。学校里很拥挤而且通风差；虫子在破旧的墙壁上筑巢；有毒的食物清洁物品已经引起一些皮疹的出现。为什么没有组织出来保护儿童？“学校里的新鲜空气和阳光是一所健康学校所必须具备的。”

一位教师(美国)



案例学习

学校的学生头痛、头晕、萎靡，有些出现了呕吐 - 这在一些特殊教室里是经常出现的，但是不出现在其它教室。

没有发现原因……

……直到学校护士观察到该教室与学校公交车放下学生的地方紧挨之后

通过询问正确的问题，卫生保健提供者确定了问题的所在并且提供了一个解决方案

有关PEH的材料

- ❖ 美国儿科学会（AAP） : www.aap.org
- ❖ ATSDR: Agency for Toxic Substances and Disease Registry: www.atsdr.cdc.gov
- ❖ Children's Health and the Environment: www.who.int/ceh

讨论要点

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First draft prepared by J. Pronczuk MD (WHO)

With the advice of the Working Group on Training Package for the Health Sector: Cristina Alonzo MD (Uruguay); Yona Amitai MD MPH (Israel); Stephan Boese-O'Reilly MD MPH (Germany); Irena Buka MD (Canada); Lilian Corra MD (Argentina), PhD (USA); Ruth A. Etzel MD PhD (USA); Amalia Laborde MD (Uruguay); Ligia Fruchtengarten MD (Brazil); Leda Nemer TO (WHO/EURO); R. Romizzi MD (ISDE, Italy); S. Borgo MD (ISDE, Italy)

Reviewers: Sophie Balk MD (USA), R. Etzel MD (USA)

Last update: July 2008

WHO CEH Training Project Coordination: Jenny Pronczuk MD

Medical Consultant: Katherine M. Shea, MD MPH, USA

Technical Assistance: Marie-Noel Bruné MSc

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本翻译工作受国际儿科学会（IPA）、中国女医师协会
儿童健康专业委员会以及中华医学会儿科学分会委托

此部分内容由首都儿科研究所附属儿童医院

李涛 翻译

由北京大学第一医院

茹喜芳 校对

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