



Baden-Württemberg

LANDESGESUNDHEITSAMT BADEN-WÜRTTEMBERG  
IM REGIERUNGSPRÄSIDIUM STUTT GART



# Newsletter

WHO Collaborating Centre for Housing and Health  
Baden-Württemberg State Health Office



No. 26, October 17

## Publications and Resources

### Noise

In August, a review paper on transport noise interventions was published in the framework of a WHO project towards setting WHO Environmental Noise Guidelines for the European Region. In this review (covering literature from 1980-2014), the authors summarize the evidence on effects of transport noise (road traffic, railways, and air traffic) interventions on human health. Health effects were sleep disturbance, annoyance, cognitive impairment of children and cardiovascular diseases. Further papers will appear in this special issue "WHO Noise and Health Evidence Reviews", summarizing the evidence reviews carried out in the context of the project.

Further information:

- [WHO environmental noise guidelines for the European region: A systematic review of transport noise interventions and their impacts on health](#)  
Brown AL, van Kamp I  
Int J Environ Res Public Health. 2017; 14. pii: E873

### Smoking

There is a new form of water pipe, where steam stones are dampened with aroma fluids (Shiazo) and heated electronically. Schober et al. (2017) investigated the influence of produced vapor to health. In conclusion, they found, that electronic Shiazo water pipes lead to a release of various harmful substances, which can impact indoor air quality and human health (smoker and passive smoker).

Further information:

- [Electronic Shiazo waterpipes: a new source of indoor air pollutants](#)  
[Elektrische Shiazo-Wasserpfeifen: eine neue Quelle für Innenraumluftschadstoffe](#)  
Schober W, Matzen W, Szendrei K, Heitmann D, Schettgen T, Fromme H  
Bundesgesundheitsbl 2017; 60:1092-1101

### Mould and Dampness

The German Society of Hygiene, Environmental Medicine and Preventative Medicine (Gesellschaft für Hygiene, Umweltmedizin und Präventivmedizin [GHUP]), other scientific medical societies, German and Austrian medical societies, physician unions and experts published an AWMF (Association of the

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Scientific Medical Societies) guideline '*Medical diagnostics for indoor mold exposure*'. The guideline provides information regarding sources of mold, mold-associated health effects and diseases, diagnostic tools, therapy, remediation of buildings with moisture problems and mold growth. This publication is intended to assist physicians in advising and treating patients exposed to indoor mold.

Further information:


- [Medical diagnostics for indoor mold exposure](#)

Hurraß J, Heinzow B, Aurbach U, Bergmann KC, Bufe A, Buzina W, Cornely OA, Engelhart S, Fischer G, Gabrio T, Heinz W, Herr CEW, Kleine-Tebbe J, Klimek L, Köberle M, Lichtnecker H, Lob-Corzilius T, Merget R, Mülleneisen N, Nowak D, Rabe U, Raulf M, Seidl HP, Steiß JO, Szewczyk R, Thomas P, Valtanen K, Wiesmüller GA  
Int J Hyg Environ Health. 2017; 220:305-328

- [AWMF-Schimmelpilz-Leitlinie "Medizinisch klinische Diagnostik bei Schimmelpilzexposition in Innenräumen" AWMF-Register-Nr. 161/001 - Endfassung](#) 

Wiesmüller GA, Heinzow B, Aurbach U, Bergmann K-C, Bufe A, Buzina W, Cornely OA, Engelhard S, Fischer G, Gabrio T, Heinz W, Herr CEW, Kleine-Tebbe J, Klimek L, Körberle M, Lichtnecker H, Lob-Corzilius T, Merget R, Mülleneisen N, Nowak D, Rabe U, Raulf M, Seidl HP, Steiß J-O, Szewczyk R, Thomas P, Valtanen K, Hurraß J  
in: Wohnmedizin - Zeitschrift für Wohnmedizin und Bauhygiene, 2016, issue no. 3

## Literature

In this section we will provide a collection of recent housing and health publications from a variety of backgrounds. Literature published in German is indicated with the German flag .

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## Allergies and Respiratory Diseases

### [Lung inflammation caused by inhaled toxicants: a review](#)

Wong J, Magun BE, Wood LJ  
Int J Chron Obstruct Pulmon Dis. 2016; 11:1391-401

### [Difficult family relationships, residential greenspace, and childhood asthma](#)

Chen E, Miller GE, Shalowitz MU, Story RE, Levine CS, Hayen R, Sbihi H, Brauer M  
Pediatrics. 2017 Apr;139(4). pii: e20163056. doi: 10.1542/peds.2016-3056

### [Effectiveness of air purifier on health outcomes and indoor particles in homes of children with allergic diseases in Fresno, California: A pilot study](#)

Park HK, Cheng KC, Tetteh AO, Hildemann LM, Nadeau KC  
J Asthma. 2017; 54:341-346


### [Ambient fine and coarse particulate matter pollution and respiratory morbidity in Dongguan, China](#)

Zhao Y, Wang S, Lang L, Huang C, Ma W, Lin H  
Environ Pollut. 2017; 222:126-131

### [The dangerous liaison between pollens and pollution in respiratory allergy](#)

Schiavoni G, D'Amato G, Afferni C  
Ann Allergy Asthma Immunol. 2017; 118:269-275

### [Ambrosia-Pflanze plagt die Lausitz](#)

Deutsches Ärzteblatt, 21st of July, 2017 

## Indoor Air

### [Indoor air quality after installation of building products in energy-efficient buildings](#)

Umweltbundesamt, 2017


### [Changes in flame retardant and legacy contaminant concentrations in indoor air during building construction, furnishing and use](#)

Vojta S, Melymuk L, Klánová J  
Environ Sci Technol. 2017. doi: 10.1021/acs.est.7b03245

### [Urban pollutant transport and infiltration into buildings using perfluorocarbon tracers](#)

Matthews JC, Bacak A, Khan MA, Wright MD, Priestley M, Martin D6 Percival CJ, Shallcross DE  
Int J Environ Res Public Health. 2017; 14 pii: E214

### [Pressemitteilung des Umweltbundesamtes: Gute Luft in Innenräumen in Gefahr](#)

Umweltbundesamt, 24th of July, 2017 

[Monitoring indoor air quality for enhanced occupational health](#)

Pitarma R, Marques G, Ferreira BR  
J Med Syst. 2017; 41:23. doi: 10.1007/s10916-016-0667-2.


[Cooking fuel and risk of under-five mortality in 23 Sub-Saharan African countries: a population-based study](#)

Owili PO, Muga MA, Pan WC, Kuo HW  
Int J Environ Health Res. 2017; 27:191-204

[Indoor air quality in an antarctic research station: Fungi, particles and aldehyde concentrations associated with building materials and architectural design](#)

Coelho Pagel E, Costa Reis N, Engel de Alvarez C, Méri Santos J, Paule Beghi S, Laerte Boechat J3, Martins Nishikawa M, Wagner Pereira Antunes P, Túlio Cassini S  
Indoor and Built Environment, 2017; doi: 10.1177/1420326X17719953

[Innenraumbelastung durch Ethanol-Feuerstellen](#)

telegramm: umwelt+gesundheit, 4/2016 

[Exposure to indoor particulate matter worsens the symptoms and acute exacerbations in chronic obstructive pulmonary disease patients of Southwestern Taiwan: A pilot study](#)

Chi MC, Guo SE, Hwang SL, Chou CT, Lin CM, Lin YC  
Int J Environ Res Public Health. 2016; 14. pii: E4

[First characterization of the endocrine-disrupting potential of indoor gaseous and particulate contamination: comparison with urban outdoor air \(France\)](#)

Oziol L, Alliot F, Botton J, Bimbot M, Huteau V, Levi Y, Chevreuil M  
Environ Sci Pollut Res Int. 2017; 24:3142-3152

[Fine particles in homes of predominantly low-income families with children and smokers: Key physical and behavioral determinants to inform indoor-air-quality interventions](#)

Klepeis NE, Bellettiere J, Hughes SC, Nguyen B, Berardi V, Liles S, Obayashi S, Hofstetter CR, Blumberg E, Hovell MF  
PLoS One. 2017; 12(5): e0177718.

[Characterization of short- and medium-chain chlorinated paraffins in outdoor/indoor PM10/PM2.5/PM1.0 in Beijing, China](#)

Huang H, Gao L, Xia D, Qiao L, Wang R, Su G, Liu W, Liu G, Zheng M  
Environ Pollut. 2017; 225:674-680

[Arterial blood pressure responses to short-term exposure to fine and ultrafine particles from indoor sources - A randomized sham-controlled exposure study of healthy volunteers](#)

Soppa VJ, Schins RPF, Hennig F, Nieuwenhuijsen MJ, Hellack B, Quass U, Kaminski H, Sasse B, Shinnawi S, Kuhlbusch TAJ, Hoffmann B  
Environ Res. 2017; 158:225-232

[Sri Lanka pilot study to examine respiratory health effects and personal PM2.5 exposures from cooking indoors](#)

Phillips MJ, Smith EA, Mosquin PL, Chartier R, Nandasena S, Bronstein K, Elledge MF, Thornburg V, Thornburg J, Brown LM

Int J Environ Res Public Health. 2016;13(8) pii: E791

[Dioxine und dioxinähnliche PCB in Umwelt und Nahrungsketten](#)

Umweltbundesamt, 2017 

[A review of polychlorinated biphenyls \(PCBs\) pollution in indoor air environment](#)

Dai Q, Min X, Weng M


J Air Waste Manag Assoc. 2016; 66:941-950

[Quantification of all 209 PCB congeners in blood - Can indicators be used to calculate the total PCB blood load?](#)

Kraft M, Rauchfuss K, Sievering S, Wöckner M, Neugebauer F, Fromme H

Int J Hyg Environ Health. 2017;220(2 Pt A):201-208

[Evaluierung von Monitoringdaten zu POPs, POP-Kandidaten und Ersatzstoffen zur Aufklärung von Ursachen, Pfaden und Trends der Umweltbelastung](#)

Umweltbundesamt, 2017 

[Bulgaria: lessons learnt from implementing actions for prevention of asbestos related diseases](#)

Vangelova K, Dimitrova I

Public Health Panorama 2017, 3:288-293

[Lung cancer from asbestos textured ceilings: a case study](#)

Dahlgren JG, Talbott PJ

Int J Occup Environ Health. 2016; 22:175-178

[Current and future risks of asbestos exposure in the Australian community](#)

Gray C, Carey RN, Reid A

Int J Occup Environ Health. 2016; 22:292-299.

[Aerotoxic syndrome: A new occupational disease?](#)

Michaelis S, Burdon J, C. Vyvyan Howard V

Public Health Panorama 2017; 3:198-211

[Assessing indoor air quality of school environments: transplanted lichen \*Pseudovernia furfuracea\* as a new tool for biomonitoring and bioaccumulation](#)

Protano C, Owczarek M, Antonucci A, Guidotti M, Vitali M

Environ Monit Assess. 2017; 189:358

[The correlation of \*Acanthamoeba\* from the ventilation system with other environmental parameters in commercial buildings as possible indicator for indoor air quality](#)

Ooi SS, Mak JW, Chen DK, Ambu S  
Ind Health. 2017; 55:35-45

[Indoor air guide values for glycol ethers and glycol esters - A category approach](#)

Mangelsdorf I, Kleppe SN, Heinzow B, Sagunski H  
Int J Hyg Environ Health. 2016; 219:419-436

[Richtwert für Propan-1,2-diol \(Propylenglykol\) in der Innenraumluft](#)

Bundesgesundheitsbl 2017, <https://doi.org/10.1007/s00103-017-2631-9> 

[Degradation of indoor limonene by outdoor ozone: A cascade of secondary organic aerosols](#)

Rösch C, Wissenbach DK, Franck U, Wendisch M, Schlink U  
Environ Pollut. 2017; 226:463-472

[Passive sampling for indoor and outdoor exposures to chlorpyrifos, azinphos-methyl, and oxygen analogs in a rural agricultural community](#)

Gibbs JL, Yost MG, Negrete M, Fenske RA  
Environ Health Perspect. 2017; 125:333-341

## **Mould and Dampness**

[Respiratory diseases in university students associated with exposure to residential dampness or mold](#)

Lanthier-Veilleux M, Baron G, Généreux M  
Int J Environ Res Public Health. 2016;13 pii: E1154

[Association between outdoor fungal concentrations during winter and pulmonary function in children with and without asthma](#)

Watanabe M, Noma H, Kurai J, Hantan D, Burioka N, Nakamoto S, Sano H, Taniguchi J, Shimizu E  
Int J Environ Res Public Health. 2016; 13 pii: E452.

[Indoor hygrothermal loads for the deterministic and stochastic design of the building envelope for dwellings in cold climates](#)

Ilomets S, Kalamees T, Vinha J  
Journal of Building Physics, 2017

[Residential risk factors for atopic dermatitis in 3- to 6-year old children: A cross-sectional study in Shanghai, China](#)

Xu F, Yan S, Zheng Q, Li F, Chai W, Wu M, Kan H, Norback D, Xu J, Zhao Z  
Int J Environ Res Public Health. 2016; 13. pii: E537

## Light and Radiation

### [Radon and thoron in-air occupational exposure study within selected wine cellars of the western cape \(South Africa\) and associated annual effective doses](#)

Botha R, Newman RT, Lindsay R, Maleka PP  
Health Phys. 2017;112:98-107

### [Association of school district policies for radon testing and radon-resistant new construction practices with indoor radon zones](#)

Foster S, Everett Jones S  
Int J Environ Res Public Health. 2016; 13(12). pii: E1234

### [Radon versus other lung cancer risk factors: How accurate are the attribution estimates?](#)

Krstić G  
J Air Waste Manag Assoc. 2017; 67:261-266


### [Residential exposure to natural background radiation and risk of childhood acute leukemia in France, 1990-2009](#)

Demoury C, Marquant F, Ielsch G, Goujon S, Debayle C, Faure L, Coste A, Laurent O, Guillevic J, Laurier D, Hémon D, Clavel J  
Environ Health Perspect. 2017; 125:714-720

### [Geographical correlations between indoor radon concentration and risks of lung cancer, non-hodgkin's lymphoma, and leukemia during 1999-2008 in Korea](#)

Ha M, Hwang SS, Kang S, Park NW, Chang BU, Kim Y  
Int J Environ Res Public Health. 2017; 14(4). pii: E344

### [Umweltradioaktivität und Strahlenbelastung: Jahresbericht 2015](#)

Bundesamt für Strahlenschutz (BfS), Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB), 2017 

### [Influence of architectural style on indoor radon concentration in a radon prone area: A case study.](#)

Baeza A, García-Paniagua J, Guillén J, Montalbán B  
Sci Total Environ. 2017; 610-611:258-266

### [Residential radon and COPD. An ecological study in Galicia, Spain](#)

Barbosa-Lorenzo R, Ruano-Ravina A, Ramis R, Aragonés N, Kelsey KT, Carballeira-Roca C, Fernández-Villar A, López-Abente G, Barros-Dios JM  
Int J Radiat Biol. 2017; 93:222-230

### [Comparative study of radon concentration with two techniques and elemental analysis in drinking water samples of the Jammu District, Jammu and Kashmir, India](#)

Kumar A, Kaur M, Mehra R, Sharma DK, Mishra R  
Health Phys. 2017; 113:271-281

[Radiation dose due to radon and thoron progeny inhalation in high-level natural radiation areas of Kerala, India](#)

Omori Y, Tokonami S, Sahoo SK, Ishikawa T, Sorimachi A, Hosoda M, Kudo H, Pornnumpa C, Nair RR, Jayalekshmi PA, Sebastian P, Akiba S  
J Radiol Prot. 2017; 37:111-126

[In-field evaluation of the impact of ageing and fading effects on annual radon concentration measurements for two different techniques](#)

Venoso G, Ampollini M, Antignani S, Carpentieri C, Bochicchio F  
J Radiol Prot. 2016; 36:922-933

## **Smoking / Environmental Tobacco Smoke**

[Use of electronic cigarettes among secondary and high school students from a socially disadvantaged rural area in Poland.](#)

Kaleta D, Wojtysiak P, Polańska K  
BMC Public Health. 2016; 15:703

[Particulate matter in second-hand smoke emitted from different cigarette sizes and types of the brand voque mainly smoked by women](#)

Kant N, Müller R, Braun M, Gerber A, Groneberg D  
Int J Environ Res Public Health. 2016; 13(8). pii: E799

[Impact of partial and comprehensive smoke-free regulations on indoor air quality in bars](#)

Kim J, Ban H, Hwang Y, Ha K, Lee K  
Int J Environ Res Public Health. 2016; 13(8). pii: E754


[Indoor tobacco legislation is associated with fewer emergency department visits for asthma exacerbation in children](#)

Ciaccio CE, Gurley-Calvez T, Shireman TI  
Ann Allergy Asthma Immunol. 2016; 117:641-645

[Estimating lung cancer mortality attributable to second hand smoke exposure in Germany](#)

Becher H, Belau M, Winkler V, Aigner A  
Int J Public Health. 2017. doi: 10.1007/s00038-017-1022-1.

[Vorläufige Risikobewertung von Tobacco Heating-Systemen als Tabakprodukte](#)

Mitteilung Nr. 015/2017 des BfR vom 27. Juli 2017 

[Social disparities in parental smoking and young children's exposure to secondhand smoke at home: a time-trend analysis of repeated cross-sectional data from the German KiGGS study between 2003-2006 and 2009-2012](#)

Kuntz B, Lampert T  
BMC Public Health. 2016; 16:485



[Fast eine Million Kinder sitzen regelmäßig in Raucher-Autos](#)

Deutsches Ärzteblatt, 2017 

[Continuous weeklong measurements of indoor particle levels in a Minnesota tribal casino resort](#)

Zhou Z, Bohac D, Boyle RG  
BMC Public Health. 2016; 16(1):870

### **Housing and Ageing Society**

[Physical activity in older adults in relation to place of residence and coexistent chronic diseases](#)

Kostka J, Kostka T, Borowiak E  
J Phys Act Health. 2017;14:20-28

[Environmental and psychosocial correlates of objectively measured physical activity among older adults](#)

Fleig L, Ashe MC, Voss C, Therrien S, Sims-Gould J, McKay HA, Winters M  
Health Psychol. 2016; 35:1364-1372

[Perceived neighborhood and home environmental factors associated with television viewing among Taiwanese older adults](#)

Hsueh MC, Liao Y, Chang SH  
Int J Environ Res Public Health. 2016; 13(7) pii: E708

[A public health perspective to environmental barriers and accessibility problems for senior citizens living in ordinary housing](#)

Granbom M, Iwarsson S, Kylberg M, Pettersson C, Slaug B  
BMC Public Health. 2016; 16(1):772

[The association of the neighbourhood built environment with objectively measured physical activity in older adults with and without lower limb osteoarthritis](#)

Timmermans EJ, Schaap LA, Visser M, van der Ploeg HP, Wagtenonk AJ, van der Pas S, Deeg DJ  
BMC Public Health. 2016; 15:710

[Built environment and walking behavior among Brazilian older adults: A population-based study](#)

Weber Corseiul Giehl M, Hallal PC, Weber Corseuil C, Schneider IJ, d'Orsi E  
J Phys Act Health. 2016; 13:617-24

[Housing and subjective well-being of older adults in Europe](#)

Herbers DJ, Mulder CH  
J Hous and the Built Environ 2017; 32:533-558

[Older adults' outdoor walking: Inequalities in neighbourhood safety, pedestrian infrastructure and aesthetics](#)

Zandieh R, Martinez J, Flacke J, Jones P, van Maarseveen M  
Int J Environ Res Public Health. 2016; 13(12). pii: E1179

[Effect of indoor temperature on physical performance in older adults during days with normal temperature and heat waves](#)


Lindemann U, Stotz A, Beyer N, Oksa J, Skelton DA, Becker C, Rapp K, Klenk J  
Int J Environ Res Public Health. 2017; 14(2). pii: E186

## Home Safety

[Perceived fall risk and functional decline: Gender differences in patient's willingness to discuss fall risk, fall history, or to have a home safety evaluation](#)

Greenberg MR, Moore EC, Nguyen MC, Stello B, Goldberg A, Barraco RD, Porter BG, Kurt A, Dusza SW, Kane BG  
Yale J Biol Med. 2016; 89:261-267

[Keimschleuder Küchenschwamm: Bakterienkonzentration erreicht Level von Fäkalproben](#)

Deutsches Ärzteblatt 20th of July 2017 

[Association of psychotropic drug use with falls among older adults in Germany. Results of the German health interview and examination survey for adults 2008-2011 \(DEGS1\)](#)

Du Y, Wolf IK, Knopf H  
PLoS One. 2017;12(8):e0182432

[Protocol for the home hazards removal program \(HARP\) study: a pragmatic, randomized clinical trial and implementation study](#)

Stark S, Somerville E, Keglovits M, Conte J, Li M, Hu YL, Yan Y  
BMC Geriatr. 2017; 17:90

## Housing Conditions

[The impact of heat waves on occurrence and severity of construction accidents](#)

Rameezdeen R, Elmualim A  
Int J Environ Res Public Health. 2017; 14(1). pii: E70.

[German environmental survey for children and adolescents 2014-2017 \(GerES V\) - the environmental module of KiGGS Wave 2](#)

[Die Deutsche Umweltstudie zur Gesundheit von Kindern und Jugendlichen 2014 – 2017 \(GerES V\) - das Umweltmodul in KiGGS Welle 2](#) 

Journal of Health Monitoring 2017 2(S3):47-54 DOI 10.17886/RKI-GBE-2017-102

[Perceived indoor environment and occupants' comfort in European "modern" office buildings: The OFFICAIR Study](#)

Sakellaris IA, Saraga DE, Mandin C, Roda C, Fossati S, de Kluienaar Y, Carrer P, Dimitroulopoulou S, Mihucz VG, Sziget T, Hänninen O, de Oliveira Fernandes E, Bartzis JG, Bluysen PM  
Int J Environ Res Public Health. 2016; 13(5). pii: E444

[Health and wellbeing of occupants in highly energy efficient buildings: A field study](#)

Wallner P, Tappler P, Munoz U, Damberger B, Wanka A, Kundi M, Hutter HP  
Int J Environ Res Public Health. 2017; 14(3). pii: E314

**Housing and Mental Health**[Neighborhood design, physical activity, and wellbeing: Applying the walkability model](#)

Zuniga-Teran AA, Orr BJ, Gimblett RH, Chalfoun NV, Guertin DP, Marsh SE  
Int J Environ Res Public Health. 2017; 14(1). pii: E76

[Exploring pathways linking greenspace to health: Theoretical and methodological guidance](#)

Markevych I, Schoierer J, Hartig T, Chudnovsky A, Hystad P, Dzhambov AM, de Vries S, Triguero-Mas M, Brauer M, Nieuwenhuijsen MJ, Lupp G, Richardson EA, Astell-Burt T, Dimitrova D, Feng X, Sadeh M, Standl M, Heinrich J, Fuertes E  
Environ Res. 2017; 158:301-317

[Understanding relationships between health, ethnicity, place and the role of urban green space in deprived urban communities](#)

Roe J, Aspinall PA, Ward Thompson C  
Int J Environ Res Public Health. 2016; 13(7). pii: E681


[Inequalities in socio-economic characteristics and health and wellbeing of men with and without disabilities: a cross-sectional analysis of the baseline wave of the Australian Longitudinal Study on Male Health](#)

Kavanagh AM, Aitken Z, Emerson E, Sahabandu S, Milner A, Bentley R, LaMontagne AD, Pirkis J, Studdert D  
BMC Public Health. 2016; 16(Suppl 3):1042

[Household environment, lifestyle behaviors, and dietary habits in relation to childhood atopic eczema in Shanghai, China](#)

Cai J, Liu W, Hu Y, Zou Z, Shen L, Huang C  
Int Arch Occup Environ Health. 2017; 90:141-159


**Thermal Comfort / Energy**[Gesamtstaatlicher Hitzeschutzplan Österreich](#)


Bundesministerium für Gesundheit und Frauen, 2017 

[Using environmental monitoring to complement in-depth qualitative interviews in cold homes research](#)

Cronin de Chavez A, Gilbertson J, Tod AM, Nelson P, Powell-Hoyland V, Homer C, Lusambili A, Thomas B  
Indoor and Built Environment 2017; 26:937-950

[Wärmedämmung: Fragen und Antworten](#)


Umweltbundesamt, 2016 

[Verbesserung der Umwelteigenschaften von Wärmedämmverbundsystemen \(WDVS\) - Evaluierung der Einsatzmöglichkeiten biozidfreier Komponenten und Beschichtungen](#)  
Umweltbundesamt, 2016 

[Dämmmaßnahmen an Gebäudefassaden](#)  
Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR), 2017 

[The effect of solar reflectance, infrared emissivity, and thermal insulation of roofs on the annual energy consumption of single-family households in México](#)  
Lucero-Álvarez J, Martín-Domínguez IR  
Indoor and Built Environment 2017; doi: 10.1177/1420326X17729194

### **Urban Planning / Built Environment**

[Grüne Infrastruktur - für Klimaanpassung und Gesundheit](#)  
Bundesamt für Naturschutz (BfN), 2017 

[Environmental risks of cities in the European region: analyses of the Sustainable Healthy Urban Environments \(SHUE\) database](#)  
Milner J, Taylor J, Barreto ML, Davies M, Haines A, Harpham C, Sehgal M, Wilkinson P, on behalf of the SHUE project partners  
Public Health Panorama 2017; 3:300-309


[Status report - The Public Health and Planning 101 project: strengthening collaborations between the public health and planning professions](#)  
Mahendra A, Vo T, Einstoss C, Weppler J, Gillen P, Ryan L, Haley K  
Health Promot Chronic Dis Prev Can. 2017; 37:24-29

[The roles of the outdoors and occupants in contributing to a potential pan-microbiome of the built environment: a review](#)  
Leung MH, Lee PK  
Microbiome. 2016; 4(1):21. doi: 10.1186/s40168-016-0165-2.

[Environment and health in Europe: status and perspectives](#)  
WHO, 2017

[Environment and health for the European cities in the 21st century: making a difference](#)  
WHO, 2017

[Urban green space interventions and health: A review of impacts and effectiveness. Full report \(2017\)](#)  
WHO, 2017

[Gebäudebegrünung und Klimawandel - Anpassung an die Folgen des Klimawandels durch klimawandeltaugliche Begrünung](#)  
Climate Service Center Germany (GERICS), 2017 

[The contribution of travel-related urban zones, cycling and pedestrian networks and green space to commuting physical activity among adults - a cross-sectional population-based study using geographical information systems](#)

Mäki-Opas TE, Borodulin K, Valkeinen H, Stenholm S, Kunst AE, Abel T, Härkänen T, Kopperoinen L, Itkonen P, Prättälä R, Karvonen S, Koskinen S  
BMC Public Health. 2016; 16(1):760. doi: 10.1186/s12889-016-3264-x

[Optimizing scoring and sampling methods for assessing built neighborhood environment quality in residential areas](#)

Adu-Brimpong J, Coffey N, Ayers C, Berrigan D, Yingling LR, Thomas S, Mitchell V, Ahuja C, Rivers J, Hartz J, Powell-Wiley TM  
Int J Environ Res Public Health. 2017; 14(3). pii: E273


[The Physical Activity and Redesigned Community Spaces \(PARCS\) Study: Protocol of a natural experiment to investigate the impact of citywide park redesign and renovation](#)

Huang TT, Wyka KE, Ferris EB, Gardner J, Evenson KR, Tripathi D, Soto GM, Cato MS, Moon J, Wagner J, Dorn JM, Catellier DJ, Thorpe LE  
BMC Public Health. 2016; 16(1):1160


[Greenhouse gas emissions profiles of neighbourhoods in Durban, South Africa - an initial investigation](#)

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## Event Announcements

### 2017

#### **European Smart Homes 2017**

25th & 26th of October 2017,

London, United Kingdom

Further information: [European Smart Homes 2017 - ACI](#)

#### **10th European Public Health Conference: Sustaining resilient and healthy communities**

1st - 4th of November 2017,

Stockholm, Sweden

Further information: [EPH Conference](#)

#### **Zukunftsraum Schule**

14th - 15th of November 2017,

Stuttgart, Germany

Further information: [Zukunftsraum Schule: Kongress 2017](#)

### 2018

#### **HiAP 2018 - A Strategy for Improving Population Health**

6th of February 2018

London, United Kingdom

Further information: [HiAP 2018 - Health in All Policies](#)

#### **First WHO Global Conference on Air Quality and Health**

30th of October – 1st of November 2018

Geneva, Switzerland

For more information, please contact: [ambientair@who.int](mailto:ambientair@who.int)

## Message Board

In this section we will inform you about activities and projects related to housing and health that are being carried out by WHO or the WHO CC. This may relate to ongoing activities and projects, as well as invitations to participate in data collections or case study projects.

### WHO work on indoor, built and urban environments

#### Preventing noncommunicable diseases (NCDs) by reducing environmental risk factors

This new publication highlights the impact environmental risk factors have on NCDs. It not only presents the burden of NCDs caused by environmental risks but also emphasizes on the key areas where action is needed to reduce this burden. It provides evidence on why environmental risk reduction is essential in NCD prevention and control strategies.

To access the publication, click [here](#).

#### International lead poisoning prevention week of action

The fifth international lead poisoning prevention week of action will focus on efforts needed to eliminate lead paint. The Global Alliance to Eliminate Lead Paint set a target that by 2020 all countries should have legally binding controls on lead paint. However, to date only 66 countries have confirmed that they have these controls in place. A lot remains to be done to meet the set target. The lead poisoning prevention week of action will take place from 22 to 28 October 2017. During the course of the week, activities around the world will be organized to raise awareness about the health hazards of lead and the need for action to stop lead exposure, including regulating lead paint. WHO, with partners, is providing materials and a resource pack for campaign organizers.

For further information, click [here](#). To register your own lead poisoning prevention event, click [here](#).

#### AirQ+: a tool to quantify health impacts

Air pollution is the largest single environmental health risk and a leading cause of disease and death globally through its impacts on the cardiovascular and respiratory systems. Worldwide, exposure to ambient air pollution accounts for 3.7 million deaths per year in addition to 4.3 million deaths attributable to household air pollution.

To support experts, policy-makers and stakeholders from health and other sectors in tackling air pollution, WHO Regional office for Europe has released AirQ+, updated software to quantify the health impacts of air pollution in a given population. Based on recent scientific evidence, AirQ+ is relevant worldwide and can be used for any city, country or region. The estimates generated by AirQ+ are the starting point to develop or adjust policies and measures that protect people's health. AirQ+ is part of the WHO response to the requests made in a landmark World Health Assembly Resolution on air pollution (2015). The Resolution asked WHO, inter alia, to provide tools that assist decision-makers at all levels of government in addressing the health impact of air pollution. For further information, click [here](#) and to download AirQ+, click [here](#).

#### Translations of the WHO action brief on urban green spaces and related publications

Over the last years, the WHO European Centre for Environment and Health has carried out intense work on the health relevance of urban green spaces, and how they can help to make cities more healthy and equitable. The project resulted in two main reports on the health impacts of urban green spaces, and the effectiveness of urban green space interventions.

To support practitioners and decision-makers at the local level involved with the design, planning, development and maintenance of urban green spaces, the main conclusion of the green space work have been summarized in an action brief which has been launched in June 2017 (also available in Russian). Currently, translations of the action brief into Finnish, French, German and Portuguese are ongoing, and translations into Italian and Chinese have been requested. The translated versions will be available through the [WHO green space brief website](#) once available.

A summary of the evidence review on urban green spaces and their health impacts has been published in an open access book "Nature-Based Solutions to Climate Change Adaptation in Urban Areas" published by Springer. The full book and the WHO chapter can be accessed [here](#) free of charge.

### **WHO work on urban environments and health at ICUH and EPH**

The work of WHO on urban environments and health equity has been presented in late September at the International Conference on Urban Health in Coimbra, Portugal, and will be presented at the forthcoming European Public Health Conference (Stockholm, Sweden, 4<sup>th</sup> November) in a session coordinated with the WHO Regions for Health Network. For details, please click [here](#).

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