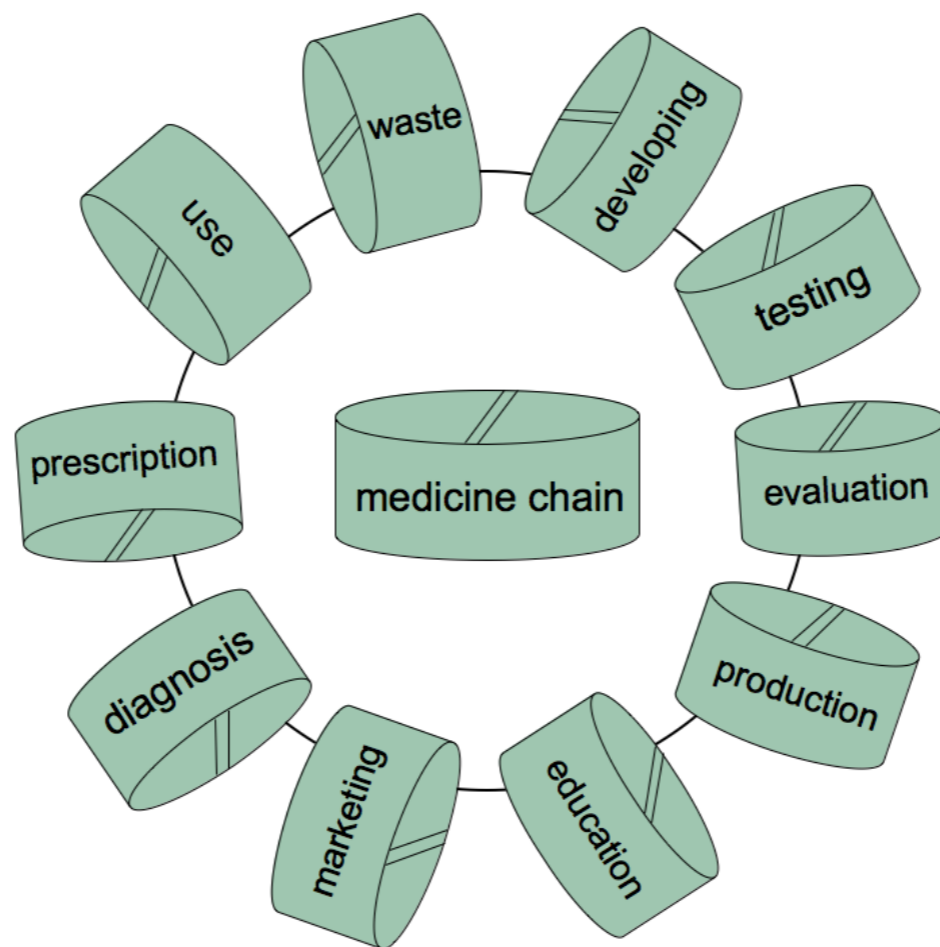


green chemistry/pharmacy, challenge for the 21st century



vision, strategy and role of Stichting Huize Aarde,
Enschede, The Netherlands

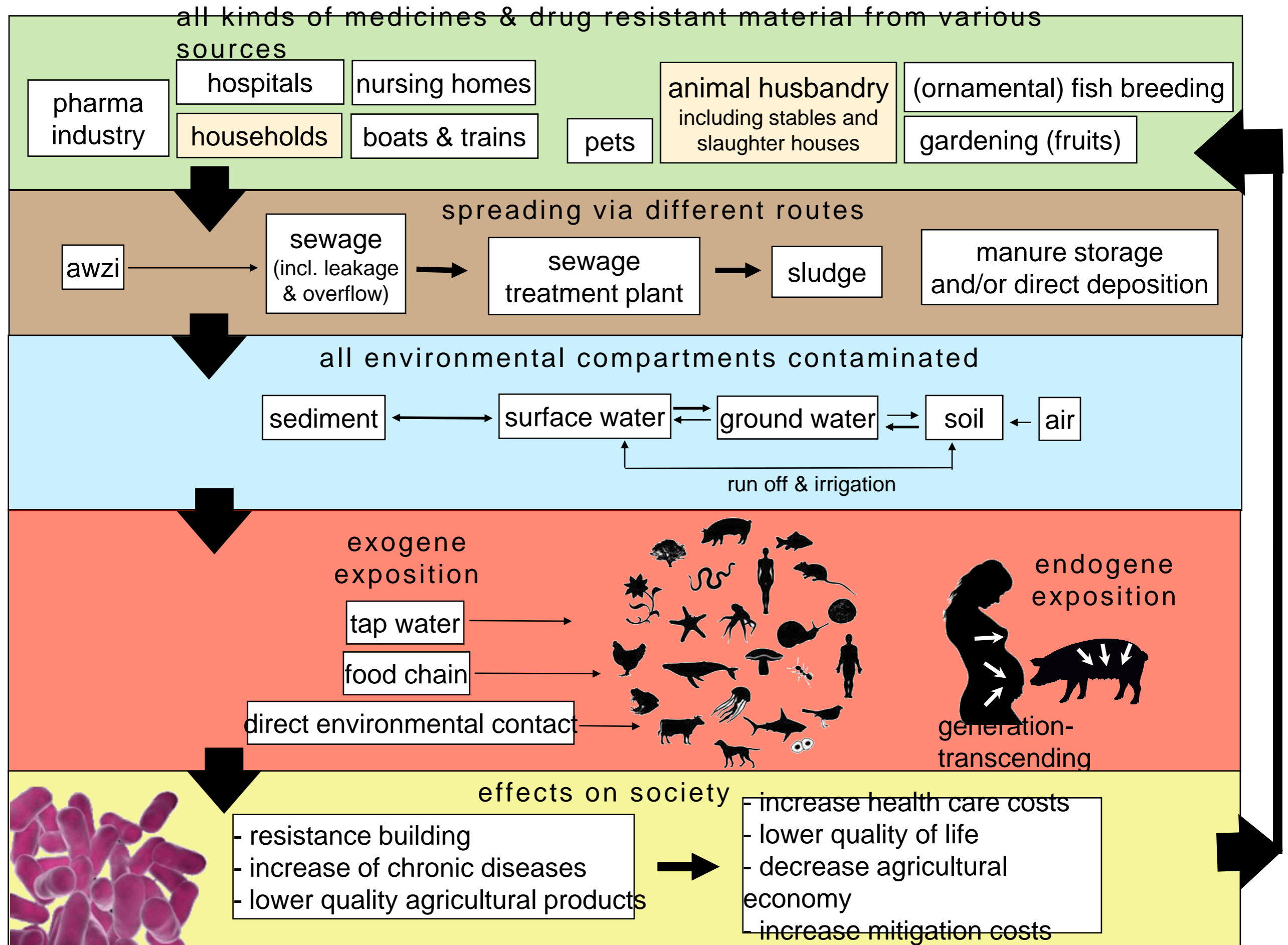
Closing Conference TAPES, Brussels, 24 Sept 2015.



UN Agenda 21

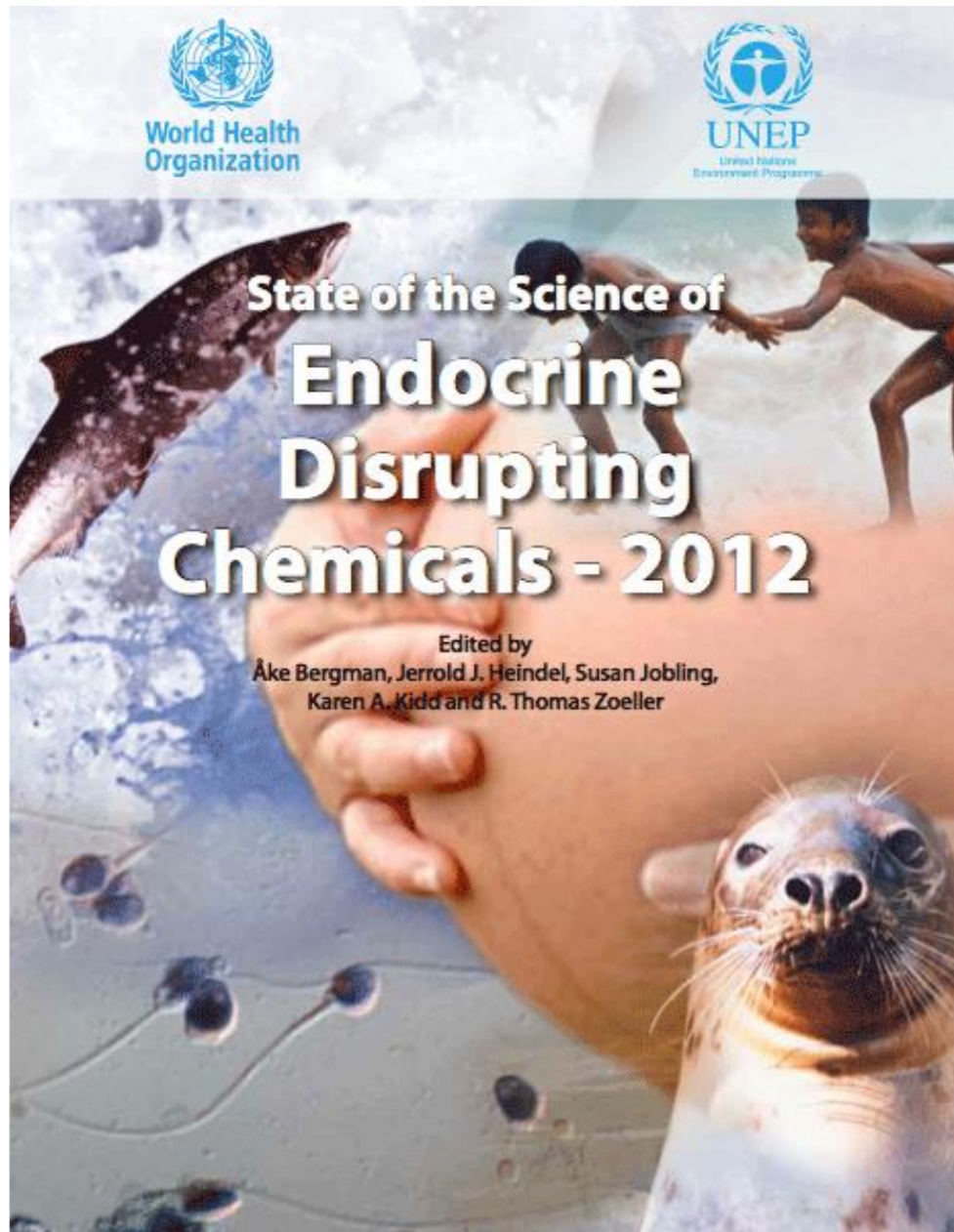


environmental cycle of medicines and resistance



medicines as endocrine disrupting chemicals

non-hormonal medicines with ED-effect

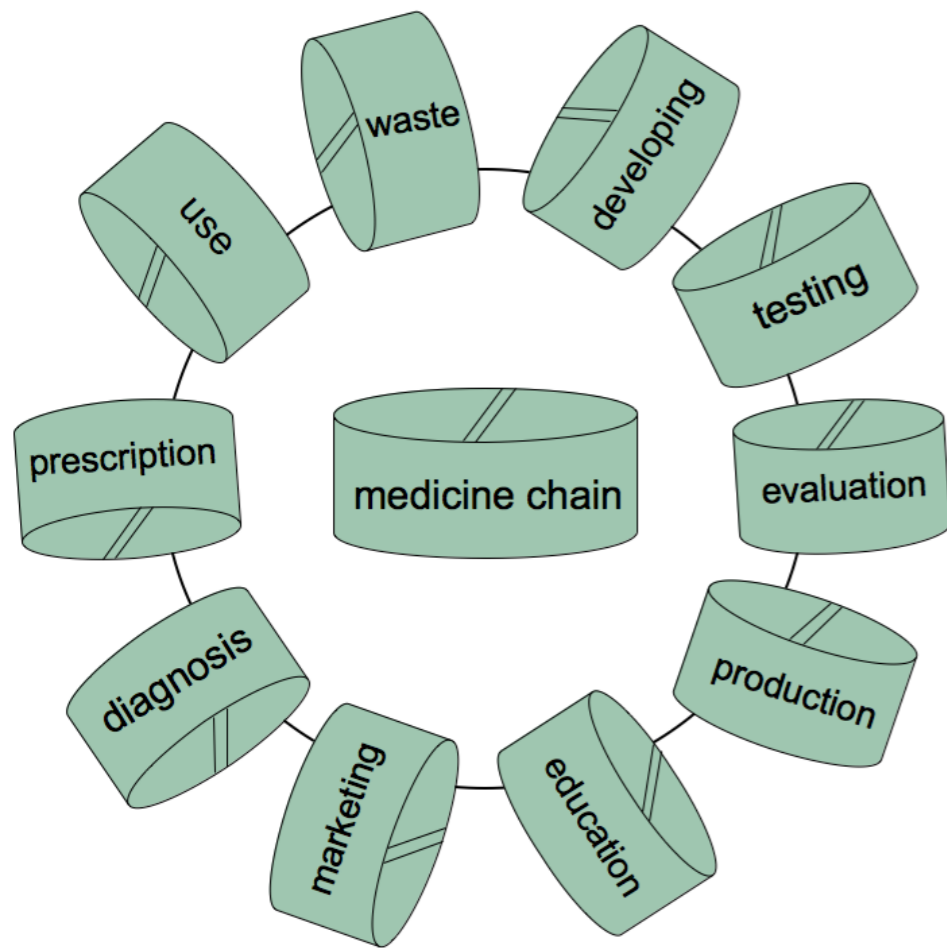


medicine group	sub group	examples	number studies
analgetics	NSAID	ibuprofen acetaminophen	11
antidepressants	SSRI	fluoxetine sertraline	10
anti-fungal agents	azoles	ketoconazole clotrimazole	7
cholesterol reducers	fibrates	bezafibrate clofibrate	5
antihypertensives	beta-blockers	salbutamol propranolol	4
anti-cancer agents	anti- estrogens	tamoxifen	2
antihypertensives	diuretics	furosemide	2
antibacteriële middelen	antibiotics	amoxicillin erythromycin	1
antiepileptics	Na-blocker	carbamazepin	1
antiacids	H2-blocker	cimetidine	1

Based on 30 publications till February 2014, Uijtewaal & Amador in prep.

vision

towards a systemic approach



Green Pharmacy

- total risk assessment
- integrated ecosystem management
- total concepts for management chemicals

strategy

- all sectors co-responsible for care common goods
- more connection between research, policy, practice
- balance between social and technical solutions



national workshop (2008) for researchers, policy makers and implementers of policy on pharma-pollution



MEDUWA MEDicines Unwanted in WAter



- dialogue between sectors
- role change
- detect knowledge gaps
- evaluate possible solutions

In collaboration with:
Institute for Responsible Medicine use, Utrecht
Water Authority Vechtstromen, Almelo.

http://www.groenegezondheid.nl/link.php?title=MEDUWA_English



SOSPharmaH

Source Oriented Separation of Pharmaceuticals by Hospitals

- introduce the concept of Green Chemistry/Pharmacy
- include footprint of ambulatory patients



UMC Utrecht

UMC Groningen

http://www.groenegezondheid.nl/link.php?title=SOSPharmaH_English



role of SHA

in the transition towards green chemistry/pharmacy



- design and management
- awareness raising
- dissemination and support

example of student involvement

<https://youtu.be/IYC7MXLlovI>

awareness



HUIZE AARDE

www.groenegezondheid.nl

www.huizeaarde.nl