



EU Interreg IV B project **noPILLS**

Influencing stakeholder's behaviour regarding
pharmaceutical substances in the environment
Outcomes of the noPILLS case study in **Dülmen**

Dr. Issa Nafo, Kerstin Stuhr, noPILLS partner Lippeverband



EU Interreg IV B project noPILLS
Final conference, Mai 27th and 28th 2015

Influencing stakeholder's behaviour regarding pharmaceuticals in the aquatic environment – Outcomes of the noPILLS case study in Dülmen

Dr. Issa Nafo, Kerstin Stuhr (Lippeverband, Essen, Germany)

- Target groups and objectives -



Medical and pharmaceutical professionals

- 100 doctors and clinicians
- 11 pharmacies
- 3 hospitals
- Nursing homes

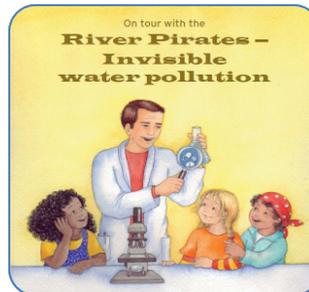
- Raise of **awareness**
- Change of **prescription and dispensing habits**



Community-wide

- 19,900 households
- 47,000 inhabitants

- Raise of **awareness**
- Change of **medicine consumption, use and disposal habits**



Schools

- 7,000 pupils and students

- Raise of **awareness**
- Disseminator / catalysts for awareness raising on the issue inside and outside the school walls



Dülmen



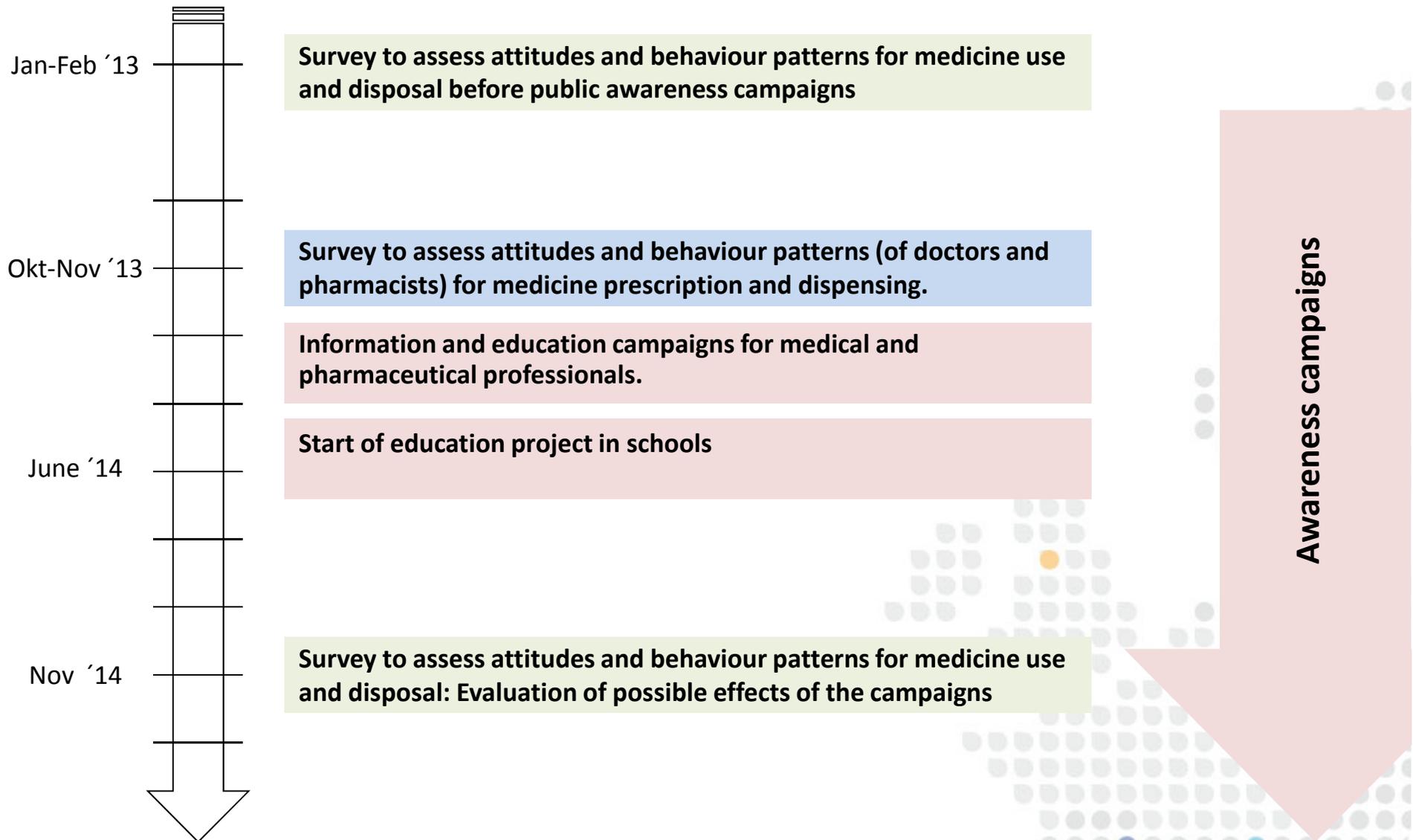
- Medium sized town in the state of North Rhine-Westphalia, Germany
- With about 47,000 inhabitants the largest town in the county of Coesfeld.
- Located in the Münsterland between the Hohe Mark Nature Park, the hills of the Baumberge, the city of Münster and the Ruhr area
- Well known far beyond the borders of North Rhine-Westphalia as the "town of the wild horses" (the home of Europe's last wild horses in the Merfelder Bruch)
- A wide variety of recreational activities (extensive network of bicycle paths, natural treasures, cultural events, etc.)
- Winner of the European Energy Award



Case study Dülmen

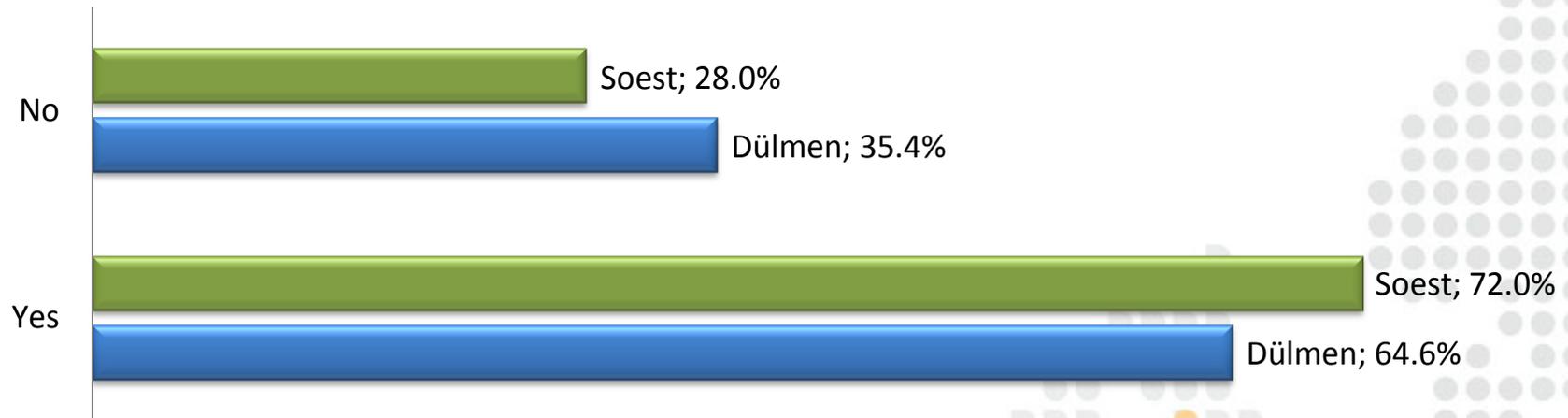
- Board of supporters -





Awareness of the issue pharmaceutical residues the aquatic environment

Had you ever heard of issues associated with medicines in water before this interview?

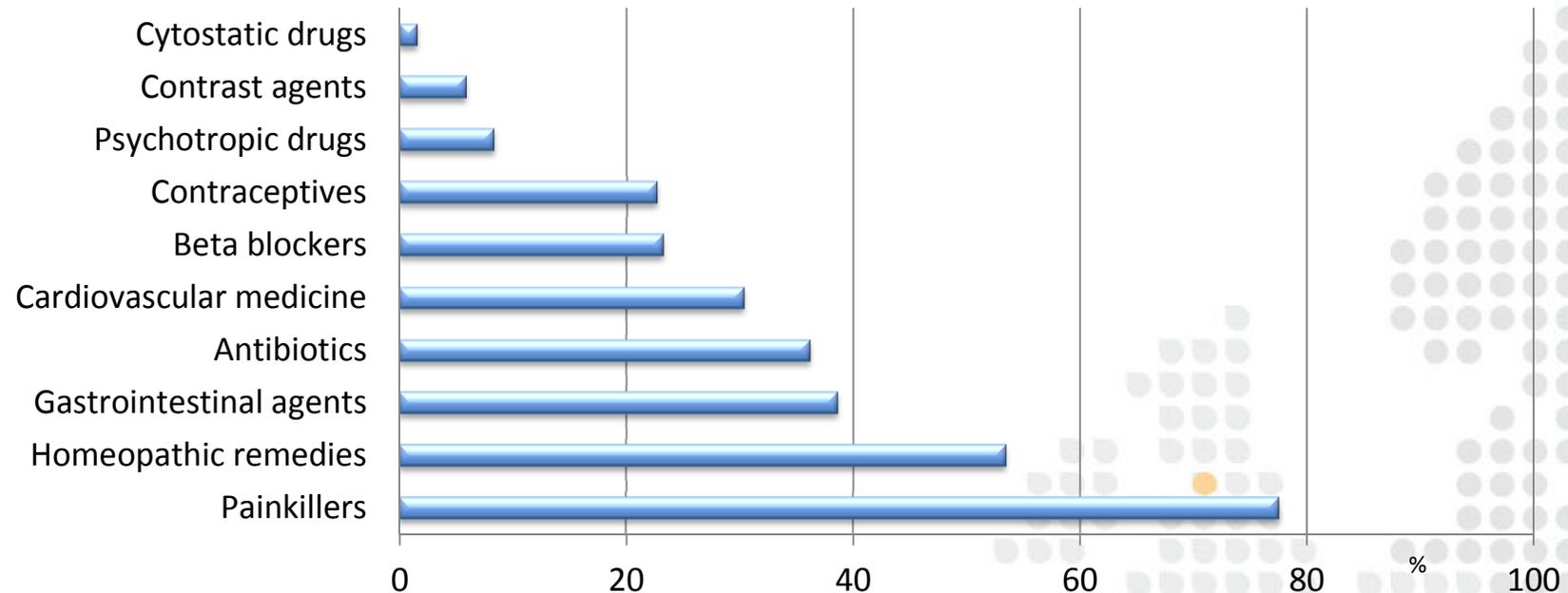


Based on each 400 interviews in Dülmen and Soest(2013)

Survey undertaken by the Rhine Ruhr Institute for Social Research and Political Consultancy, Duisburg, Germany
24% of the estimated 3,300 inhabitants reached by telephone in Dülmen and Soest accepted the request to be interviewed

The use of medicines by members of the general public

Which of the following medicines have been used by members of your household in the last quarter? (Multiple answers are possible)

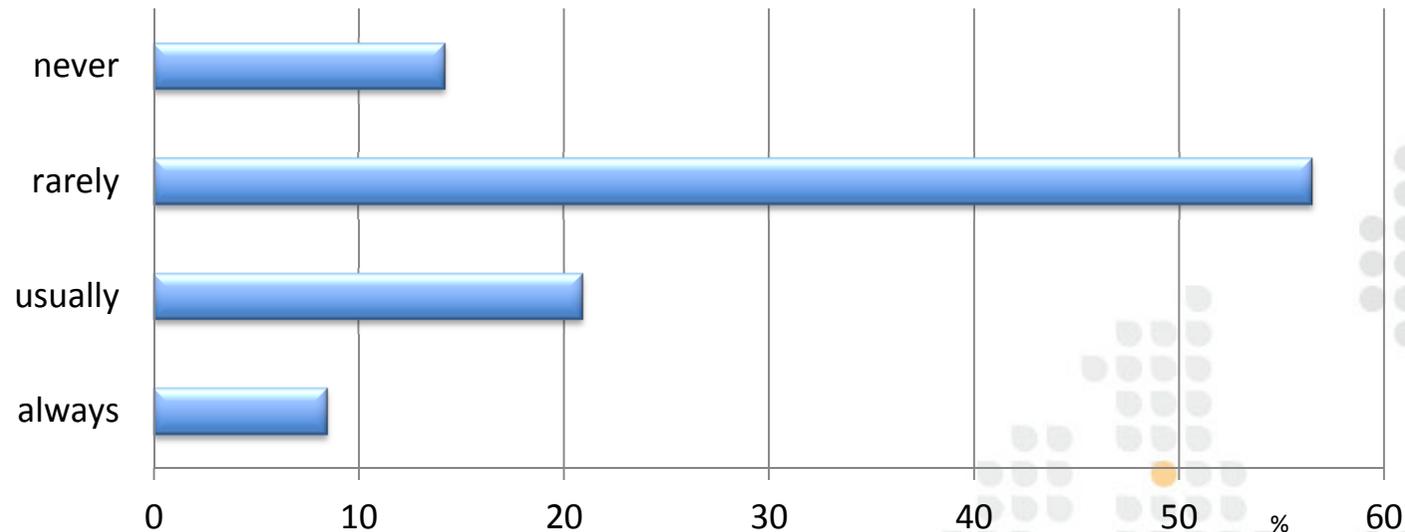


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The use of medicines by members of the general public

How often do you treat slight illnesses such as headaches or colds with medications?

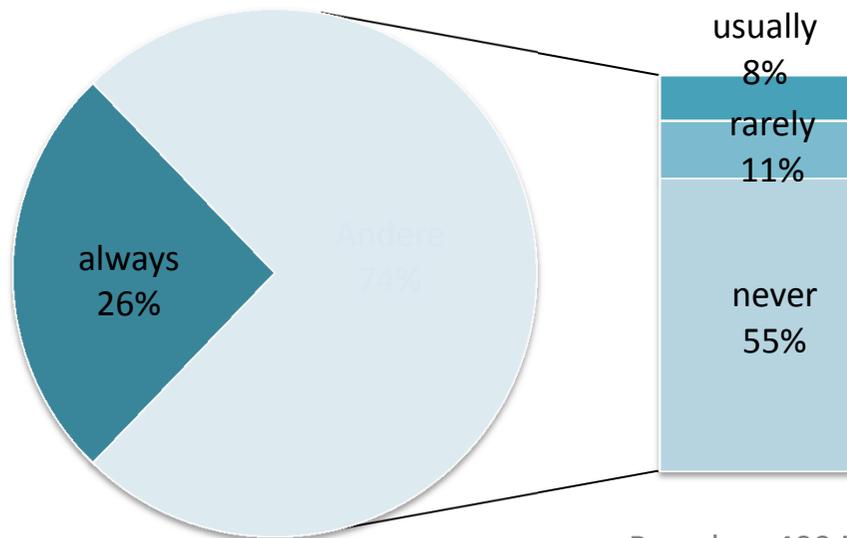


Based on 400 interviews in Dülmen (2013)

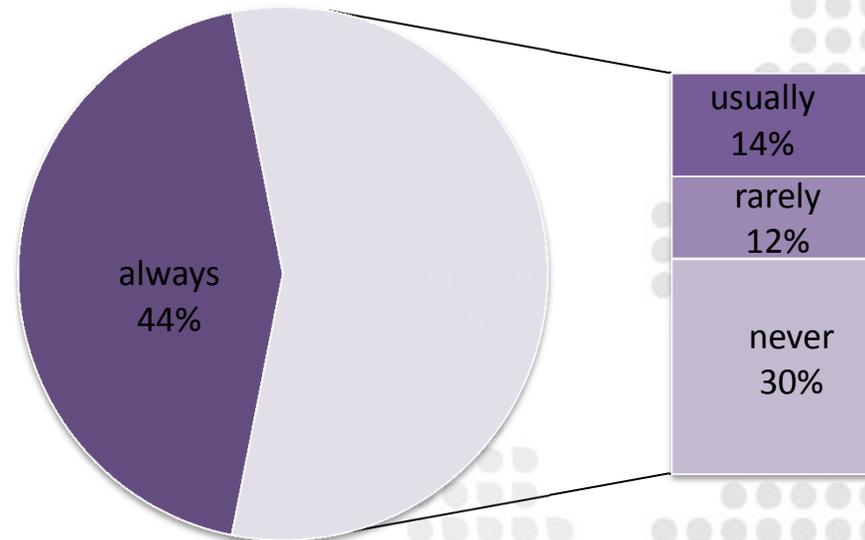
Survey undertaken by the Rhine Ruhr Institute for Social Research and Political Consultancy, Duisburg, Germany
24% of the estimated 3,300 inhabitants reached by telephone in Dülmen and Soest accepted the request to be interviewed

Domestic disposal attitudes of medicines in Dülmen

I dispose of leftover medicines via the residual waste (grey bin).



I return my unused medicines to the pharmacy.

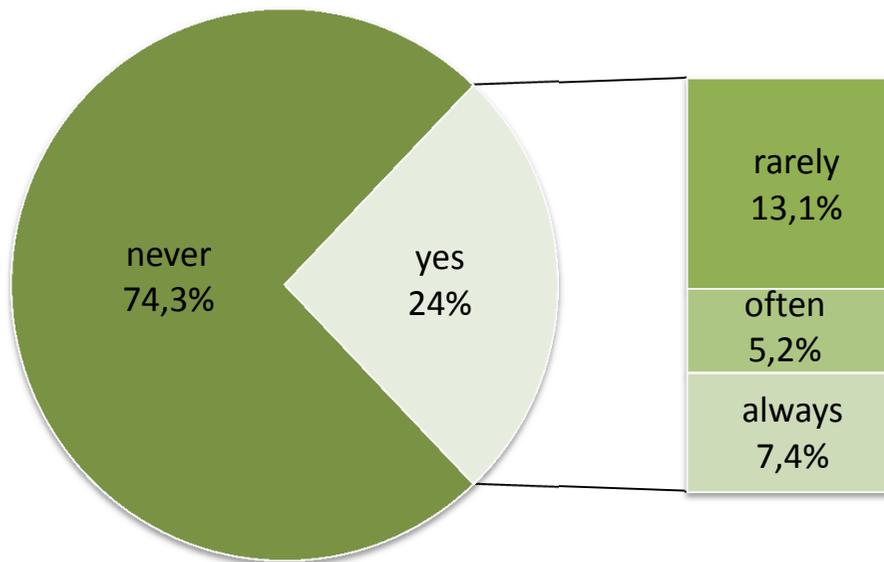


Based on 400 interviews in Dülmen (2013)

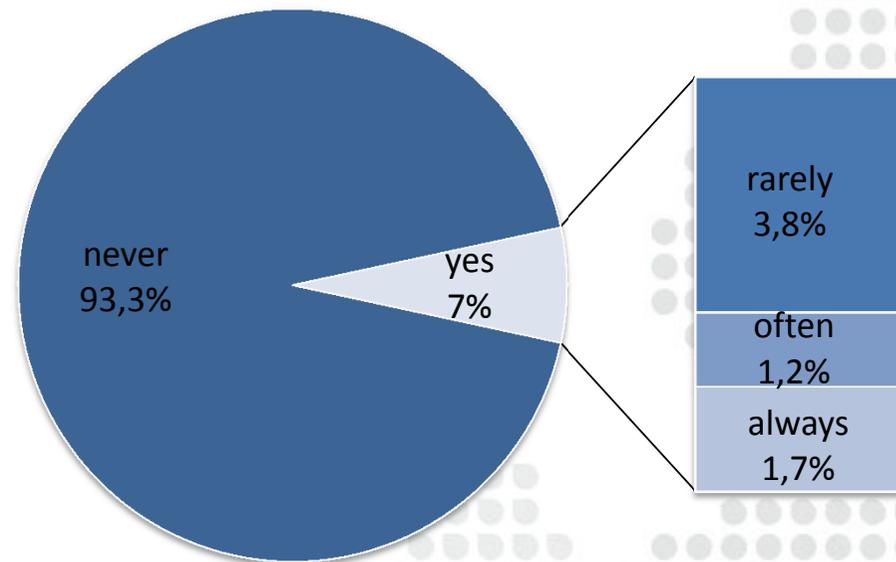
Survey undertaken by the Rhine Ruhr Institute for Social Research and Political Consultancy, Duisburg, Germany
 24% of the estimated 3,300 inhabitants reached by telephone in Dülmen and Soest accepted the request to be interviewed

Domestic water system disposal of medicines in Dülmen

I dispose of unused liquid medicines down the sink or toilet



I dispose of leftover tablets, suppositories or ointments down the sink or toilet



Based on 400 interviews in Dülmen (2013)

Survey undertaken by the Rhine Ruhr Institute for Social Research and Political Consultancy, Duisburg, Germany
 24% of the estimated 3,300 inhabitants reached by telephone in Dülmen and Soest accepted the request to be interviewed



Surveys before the awareness raising activities - some policy pointers (1) -



The **protection of the aquatic environment is of high value** for the population.

Even though the majority of the respondents have heard in general about pharmaceutical residues in waters, there is a **lack of awareness** about the relevance of the topic in the local situation.

OTC medicines make up an important part of pharmaceutical pollution in waters. However, there is apparently **good recognition that drug treatment for headaches and colds is not always necessary.**

Leftover medicines are **disposed of via wastewater at least occasionally apparently due to the lack of information** about the possible impacts on waters. **Information about 'good disposal practices' of leftover medicines, might usefully address this.**



Surveys before the awareness raising activities - some policy pointers (2) -



- ▶ There is considerable support for the prescription and promotion of 'environmentally friendly drugs' amongst GPs and pharmacists, but **not enough information is available to professionals**
- ▶ Advice of pharmacists and doctors is perceived in a positive way by the population and **doctors and pharmacists can play a key role for the change of patient behaviour**
- ▶ Awareness raising activities might usefully aim at **promoting environmentally friendly alternatives recommended by experts** such as doctors and pharmacists
- ▶ There is a **demand for non-drug treatment alternatives** by patients. Such alternatives are proposed in some cases by the medical professionals. **Advice on non-drug alternatives should be enhanced in appropriate cases**



Laufen entlang der Wasserlinie

Lippeverband, TSG und Grün-Weiß Hausdülmen laden im September zum Volks-Wettkampfein

Von Stefan Wiskulak

START. Das Spartenfest in diesem Jahr führt zu den Wasserläufen in Dülmen und der Lippe, in der Tradition der 'Wasserläufer', welche seit Jahrhunderten die Bäche, Flüsse und Kanäle säuberten und so die in Zukunft besser nutzbar machen.



Wassersport, TSG und Stadt laden im September zum Wasserlauf ein. (v.l.) Hans-Joachim Spang, Thomas Neigel (TSG), Oliver Noh (Lippeverband), Berndt Koth (Grün-Weiß) und Felix Peter (Grün-Weiß).





Awareness-raising activities and tools (examples)



Target group	Activities and tools
Community-wide	<ul style="list-style-type: none">○ Projects in Schools and youth care facilities○ Citizen meetings / information campaigns on the marketplace○ Flyer in the trash calendar to inform about proper ways to dispose of leftover medicines○ Mini Book on medicines in waters○ Brochures to raise awareness of the issue○ Running event (in cooperation with sports clubs, the city and the local radio)○ Animated presentation, movies, variety of information on the topic○ Press events○ Press articles, radio reports and TV reports
Medical and pharmaceutical professionals	<ul style="list-style-type: none">○ Round table discussion with doctors, pharmacists and medical staff○ Information sessions○ Certified continuing education seminar for medical and pharmaceutical professionals○ Presentations and lectures by experts on the issue
GPs and Population	<ul style="list-style-type: none">○ Two-week campaign GPs' campaign "A flyer for each drug prescription"○ Posters, flyer and brochures
Pharmacists and Population	<ul style="list-style-type: none">○ Two-week campaign "spring cleaning in the medicine chest"○ Kit for pharmacies: Supporting pharmacies receive a kit consisting of a poster, information flyers, give-aways, etc.



Awareness raising activities



Basic idea and some key messages of the awareness activities



- Communicating the message that **everyone can participate in the success** of the case study in order to prevent water pollution by medicines, because even the smallest contribution helps
- Addressing the public as a local community that committed to actively **protect and preserve the good local water quality** for long-term:
 - *'It is worth to act today in order to prevent possible negative effects for the aquatic environment tomorrow!'*
 - *'To ensure that our water remains without no side effects!'*
- **Never dispose of** liquid and solid medicines leftover via the sink or the toilet, but in the trash (local trash is burnt).
- **Inform your doctor or pharmacist** about your storage and leftover that may be sufficient for an upcoming treatment. Ask for 'environmentally friendly' alternatives.
- **Reduce medicine leftover** by a wise purchase. Select the smallest package size sufficient for a successful therapy.

Frühjahrsputz für Hausapotheke

Nächste Woche Beratung in allen Dülmener Apotheken



mehr in der Apotheke abgegeben – aber „beim Frühjahrsputz“ ist es natürlich nahe-
 Ziel, den Eintrag von Arzneimittelresten ins Wasser zu vermindern. Ein wichti-
 war nicht immer so: Zehn, als in Deutschland noch viele Mülldeponi-

FRÜHJAHRSPUTZ FÜR DIE HAUSAPOTHEKE!

BRINGEN SIE IHRE ALTMEDIKAMENTE EINFACH MIT.

IN ALLEN APOTHEKEN IN DÜLMEN
31. MÄRZ – 5. APRIL 2014

‘Spring cleaning in the medicine chest’

im Rahmen des Spurensstoff-... wässer und Grundw...
 fe-Pro...
 peveri...
 der St...
... repeated 13th – 24th, Apr 2015

Quelle: Dülmener Zeitung (25.03.2014)

DSADS

Den Spurenstoffen auf der Spur in Dülmen
 Alles klar. Damit unser Wasser ohne Nebenwirkungen bleibt.

Ministerium für Klimaschutz, Umwelt,
 Landwirtschaft, Natur und Verbraucherschutz
 des Landes Nordrhein-Westfalen



Die Initiative „Den Spurenstoffen auf der Spur in Dülmen“ (DSADS) ist ein Projekt der Landesregierung, der Stadt Dülmen und des Lippeverbandes. Sie erforscht, wie die Gewässerbelastung mit Arzneimittelrückständen durch Aufklärung und Beratung der Bürger, Apothekern und Ärzten reduziert werden kann. Weitere Informationen finden Sie im Internet auf www.dsads.de

Ein Flyer zum Rezept

Ärztinnen und Lippeverband starten Projektwochen zum Thema Medikamenten-Entsorgung

Von Kristina Kerstan

DÜLMEN. Den blauen Flyer werde er auf seinen Schreibtisch legen, hat sich Dr. Martin Olbrich vorgenommen. Um ihn direkt bei der Hand zu haben im Gespräch mit Patienten. Und auch am Empfang werden die Falblätter liegen. „Im Prinzip wird es bei jedem Rezept einen Flyer geben“, betont der Vertreter des Dülmener Ärztenetzes.

„Man kann Medikamente ruhigen Gewissens in den Hausmüll geben.“

Dr. Martin Olbrich

Denn die Patienten darüber zu informieren und dafür zu sensibilisieren, wie Medikamente richtig entsorgt werden, ist das Ziel eines zweiwöchigen Projektes, das Dülmener Ärztenetz und Lippeverband gemeinsam starten. Dabei werden vom Montag, 20. Oktober, bis zum 31. Oktober in sämtlichen Dülmener Praxen (mit Ausnahme der Zahnärzte) die blauen Flyer ausliegen. Zusätzlich sollen Patienten auf das Thema angesprochen werden, erläutert Olbrich. Auch in den Apotheken hängen Plakate.

„Wir wollen bewusst machen, dass man nicht zur Apotheke gehen muss, um



Die Flyer und Plakate für die Projektwochen stellt Michael Steinbach (2.v.r.), Sprecher des Lippeverbandes, zusammen mit (v.l.) Dr. Christoph Everding, Nicole Waltering und Dr. Martin Olbrich von der Gemeinschaftspraxis in Rulden vor.

Medikamente zu entsorgen, so der Allgemeinmediziner. Denn eigentlich sei die richtige Entsorgung sehr einfach. „Man kann sie ruhigen Gewissens in den Hausmüll geben.“ Denn der Verband habe sich als früher, nirgendwo in der Bundesrepublik mehr deponiert, ergänzt Michael Steinbach, Sprecher des Lippeverbandes. Stattdessen werde der Müll verbrannt.

Bei flüssigen Medikamenten, etwa Tropfen, rät Olbrich dazu, diese in ein Tuch zu schütten und das dann in

‘A flyer for each drug prescription’

statt, welches der Lippeverband in Dülmen durchführt. Der Verband habe sich der Idee für die Aktionen an das Ärztenetz gewandt, berichtet Martin Olbrich. „Wir müssen uns Ärzte auch an die eigene Nase fassen“, betont er, manchmal lieber eine kleinere Medikamentenpackung verschreiben.

In dem Flyer, der ab Mon-

sei man zudem auf die Vorher/Nachher-Analysen zu Spurenstoffen im Dülmener Abwasser.

ANZEIGE

Küchenkauf mit dem Service 1. Klasse
G&P KÜCHENSTUDIO
 Koppelweg 10, 48249 Dülmen
 Telefon 02594/84344

Projekt verlängert

Das Projekt „Spurenstoffe auf der Spur“ hat der Lippeverband bis Mitte 2015 verlängert. „Wir haben gesehen, dass wir es mit etwas mehr Zeit sinnvoller abschließen können“, erläutert Sprecher Michael Steinbach. Bis dahin werde auch die Aktivkohlestufe, mit der das Dülmener Klärwerk neu ausgerüstet wird, fertig sein. Ursprünglich sollte das für zwei

Quelle:
Dülmener
Zeitung
(18.10.2014)



Raising Awareness - Involvement of schools -



Schüler forschen nach Rückständen im Wasser Jugendliche Spurensucher

Quelle: Dülmener Zeitung (13.12.2013)



In der Quiz-Show zeigten die Schüler sich gut informiert. Foto: Kerstan

Dülmen. Vor große Probleme stellten die Fragen die Schüler nicht. Schließlich waren sämtliche Antworten bei dem Quiz, das dem Vorbild „Wer wird Millionär“ folgte, bereits in einem vorher gezeigten, kurzen Film erläutert worden.



From initially 4 schools and a youth group for nature conservation ... to a total of 10 (of the 13) schools in Dülmen, including primary schools, at the end of the project!



Raising Awareness - Involvement of schools -



The making of ...
Cinema spot by pupils and student
Marienschule, class 10

https://www.youtube.com/watch?v=SqUIM_ZuGXg&feature=youtu.be

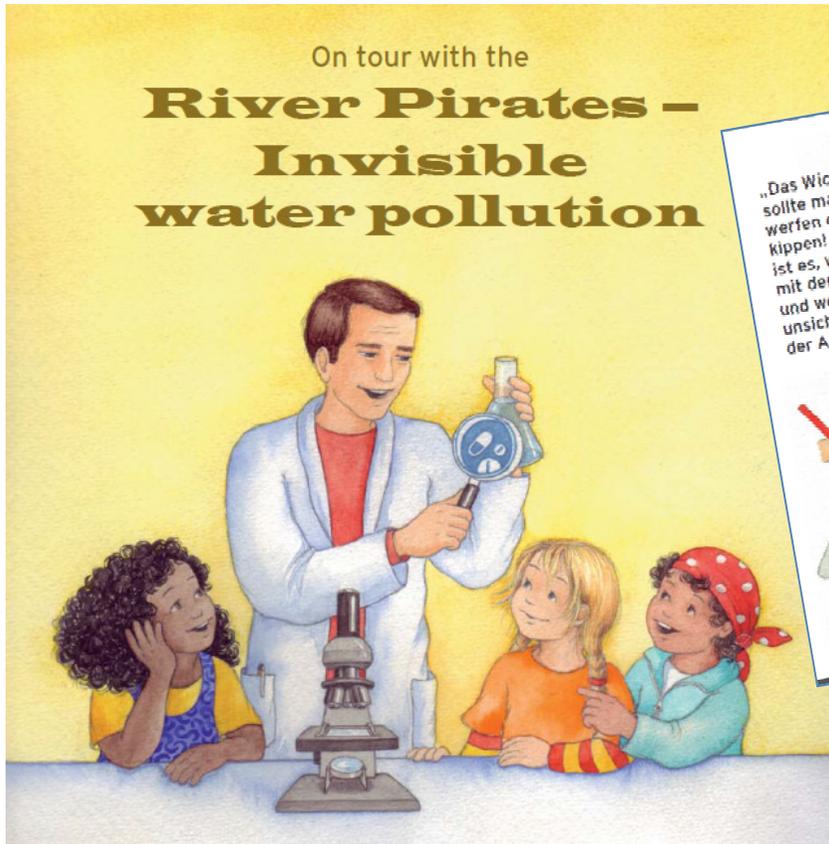
Cinema spot was shown from 26.02.- 26.03.2015 in 3 movie theatres; Spot will be displayed again in Aug-Sept 2015



Writing a thriller on the topic of medicines in the aquatic environment

- 45 pupils and students, 12-18 year old
- 4 groups and 4 writing weeks ('baton change' after every writing week)
- Supervision and guidance by two professionals
- **Thriller is available in bookshops starting May 30th, 2015**





- Mini book for primary schools
- available in 8 languages



Survey after the awareness raising activities - Evaluation of awareness campaigns -



About 77% of the respondents **had heard of the individual awareness campaigns**; 71% of them **took notice of at least one of the printed information materials**; 20% of them **actively participated in at least one of the campaigns**

The fraction of the respondents in Dülmen with **knowledge about medicines residues in the aquatic environment** increased by 19%

20% **more respondents used the proper disposal way** of leftover medicines and 6% **less respondents used an improper disposal option** in comparison to the situation before awareness campaigns

About 34% of the respondents stated **they had changed their own habit regarding the disposal of leftover medicines** due to the awareness campaigns

16% of the interviewees claimed **to have changed their own behaviour regarding medicines consumption** due to the awareness campaigns in the Dülmen

- ▶ Different group-specific activities were carried out to sensitize consumers, pupils and students, GPs and pharmacists on the issue of medicines in waters.
- ▶ The awareness campaigns were based on a communication concept that took into account the lack of knowledge about the issue and the perception of the “problem” by the target groups.
- ▶ The **activities** conducted in the case study to raise awareness of the issue **were effective**.
- ▶ **Pupils and students** are good **catalysts** for awareness raising on the issue inside and outside the school walls
- ▶ **Medical and pharmaceutical professionals** play a **key role** for the change of consumers’ and patients’ behaviour regarding medicines use and disposal
- ▶ A **stakeholder analysis** prior to the awareness campaigns and the **involvement of representatives of the key stakeholder groups** in the design of targeted awareness campaign modules **is essential for the success**
- ▶ Activities for awareness raising should focus on **clear messages without using controversy between environment and health**



Common “Declaration of Intent” of the members of the board of supporters for the continuation of the awareness activities after the end of the noPILLS project!



ENTWURF

Initiative „Den Spurenstoffen auf der Spur“

Gemeinsame Absichtserklärung zur Sensibilisierung der Bevölkerung für einen wasserschonenden Umgang mit Spurenstoffen



THANK YOU FOR YOUR ATTENTION!

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