



“The future of treatment of tobacco dependence – harnessing the technology to deliver hybrid interventions”

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1: Quitting smoking is the most effective intervention

Quitting smoking increases life expectancy

1 year of not smoking => 3 months longer life expectancy

Quitting smoking extends the lifespan

- by 3 years if one quits by the age of 60
- by 6 years if one quits by the age of 50
- by 9 years if one quits by the age of 40

1: Quitting smoking is the most effective intervention

Quitting smoking prevents diseases & improves outcomes for the entire family

Cardiovascular Diseases and Stroke

Stress, anxiety, depression

Primary and secondary cancers

Effectiveness (metabolism) of
pharmacotherapy for other
conditions

COPD and asthma

Pregnancy & Fetal development

Wound healing & hospitalisation

Fertility and impotence

Doll et al, 2004, BMJ

2: We have effective and safe gold standard treatments for smoking

| Pharmacotherapy | Odds Ratio |
|---|------------|
| Cytisine (Tabex, Desmoxan) | 3.98 |
| Varenicline (Champix) | 2.76 |
| Bupropion (Zyban) | 1.60 |
| Nicotine replacement therapy (mono: gums, sprays, patches) | 1.60 |
| Nicotine replacement therapy (dual: patches+other NRT) | 2.14 |

| Behavioural Support | Odds Ratio |
|----------------------------------|------------|
| Behavioural support (individual) | 1.40 |
| Behavioural support (group) | 1.88 |
| Telephone support (proactive) | 1.37 |
| Text messaging | 1.63 |
| Printed materials | 1.19 |

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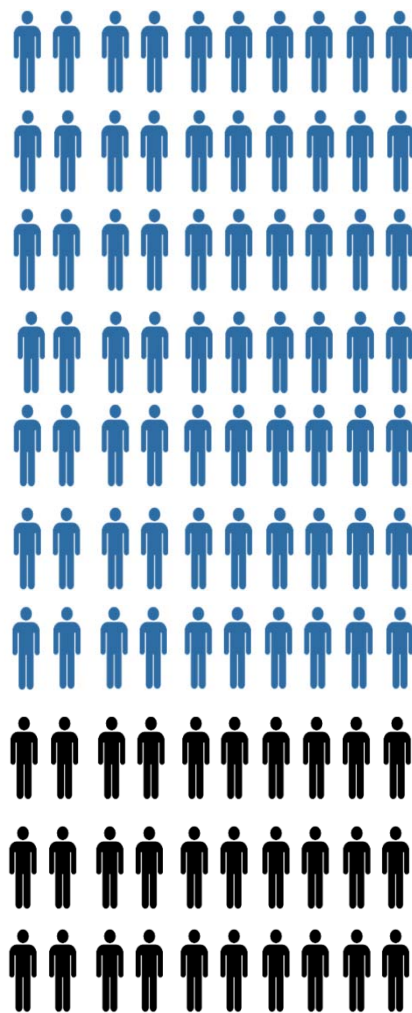
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Combine for the best effect

West et al, 2017, Addiction

3: Smokers are trying to quitting smoking

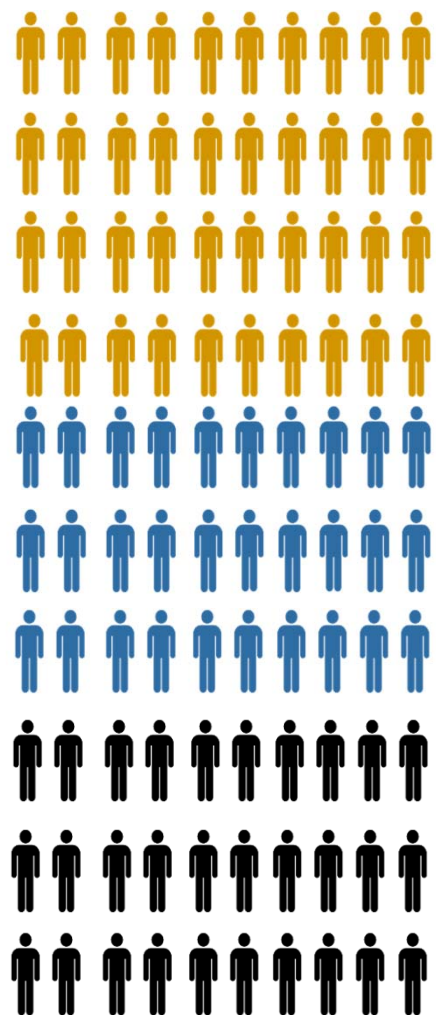
70% of smokers
want to quit
smoking



Around 40%
try to quit
smoking
every year

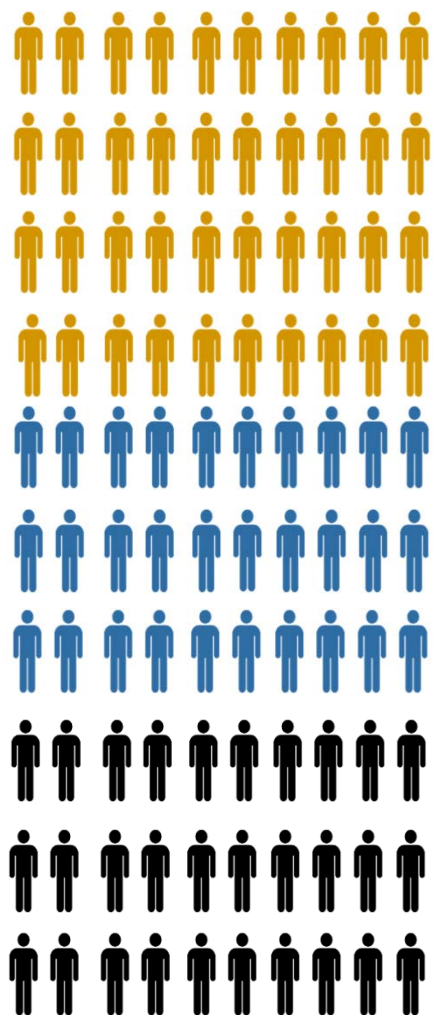


4: Smokers are most often failing to quit smoking

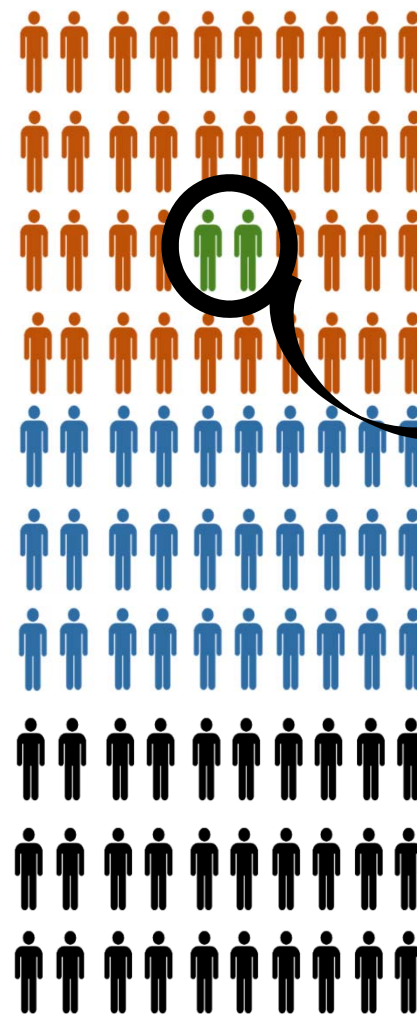


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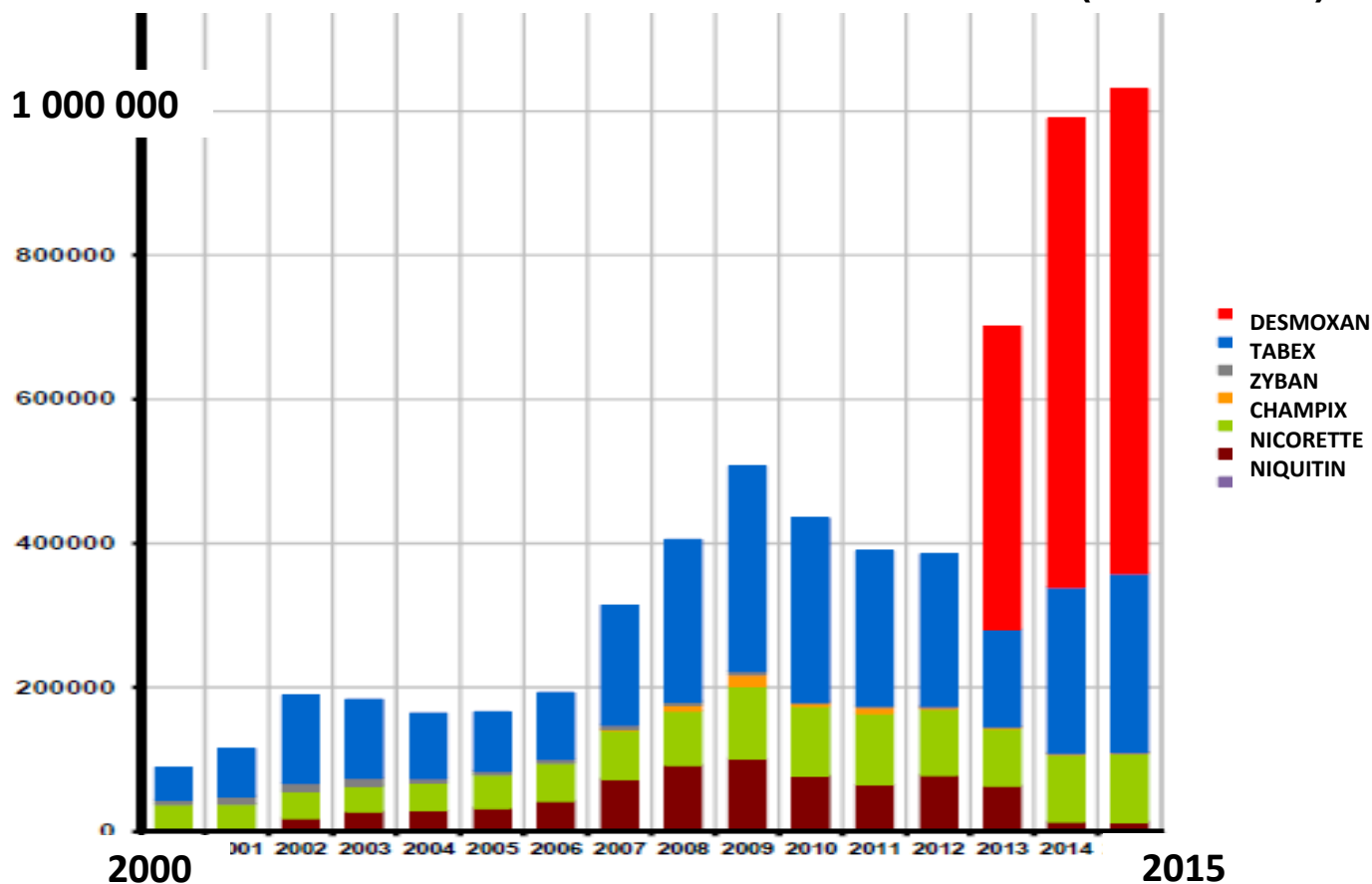


Most smokers return to
smoking within 2
weeks.

Only 5% will succeed.

5: Smokers are interested in pharmacotherapy

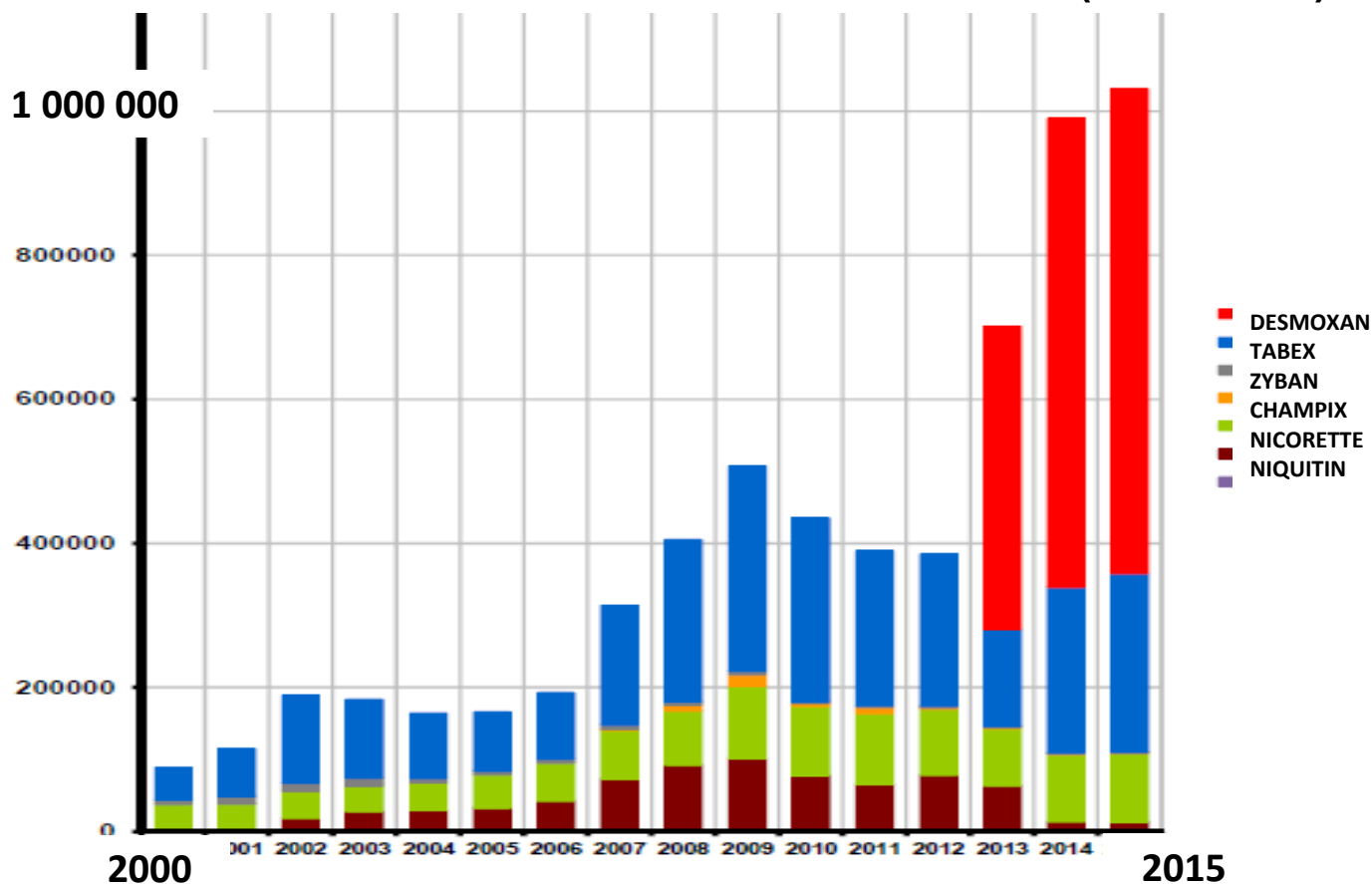
Number of cessation treatments sold in Poland (2000-2015)



1 million stop smoking treatments sold in Poland. Majority are cytisine-based (effective and safe, available over-the-counter).

5: Smokers are interested in pharmacotherapy

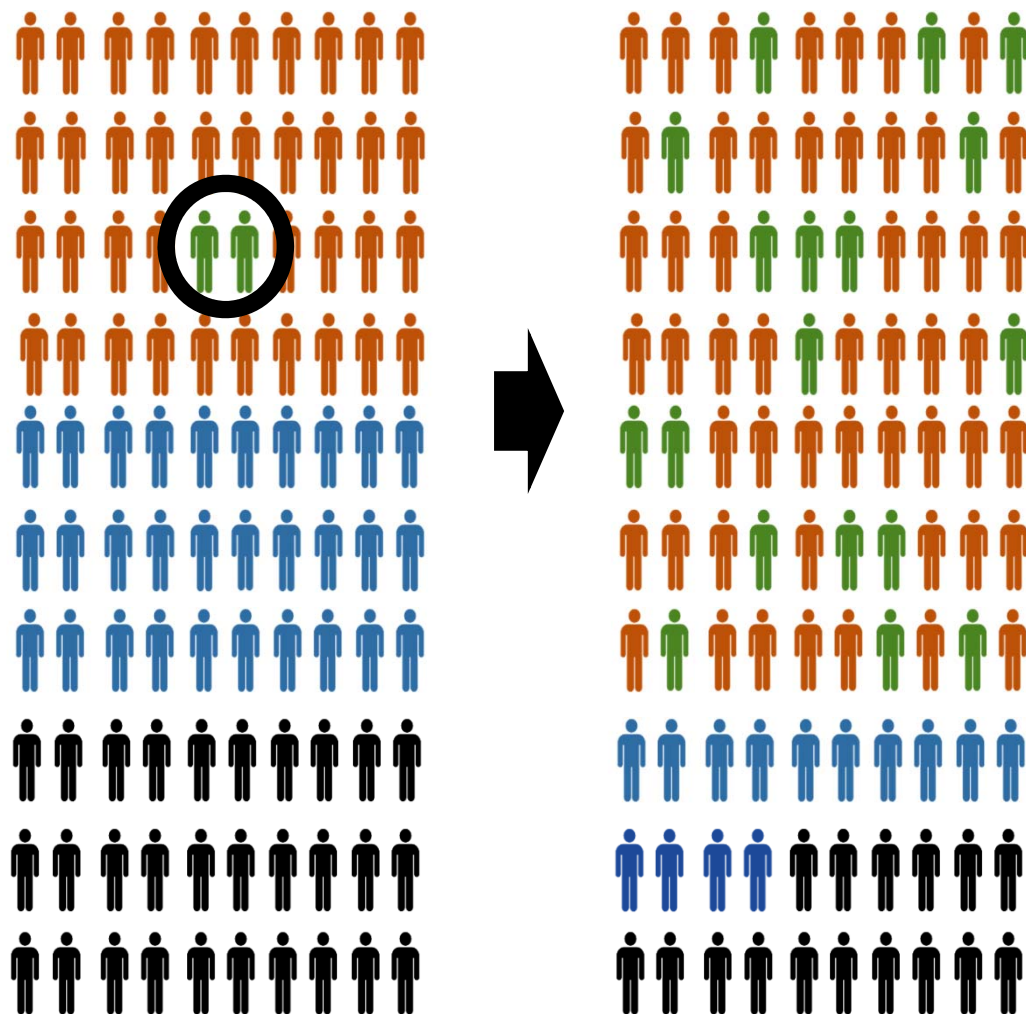
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However, still 8 mln smokers:

- 1) <5% smokers report using them to quit in surveys
- 2) buying over-the-counter medications is not enough to quit:
 - well documented non-adherence
 - lack of psycho-behavioural support.

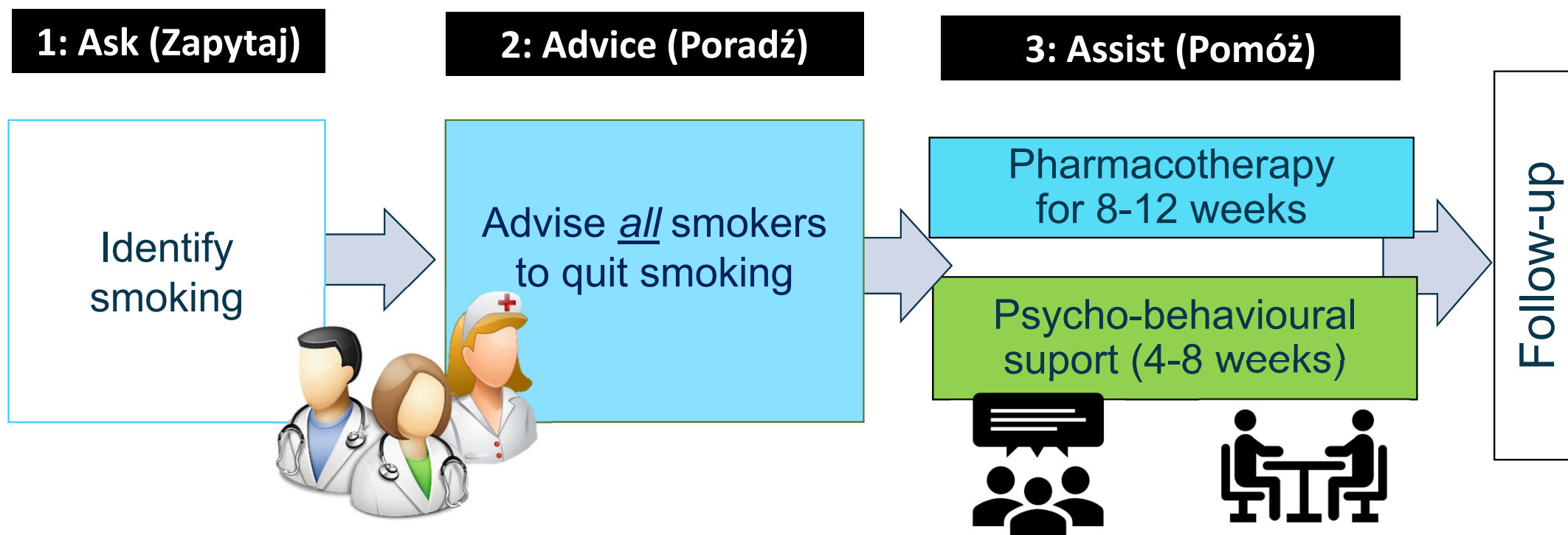


Priorities for healthy cities (and countries):

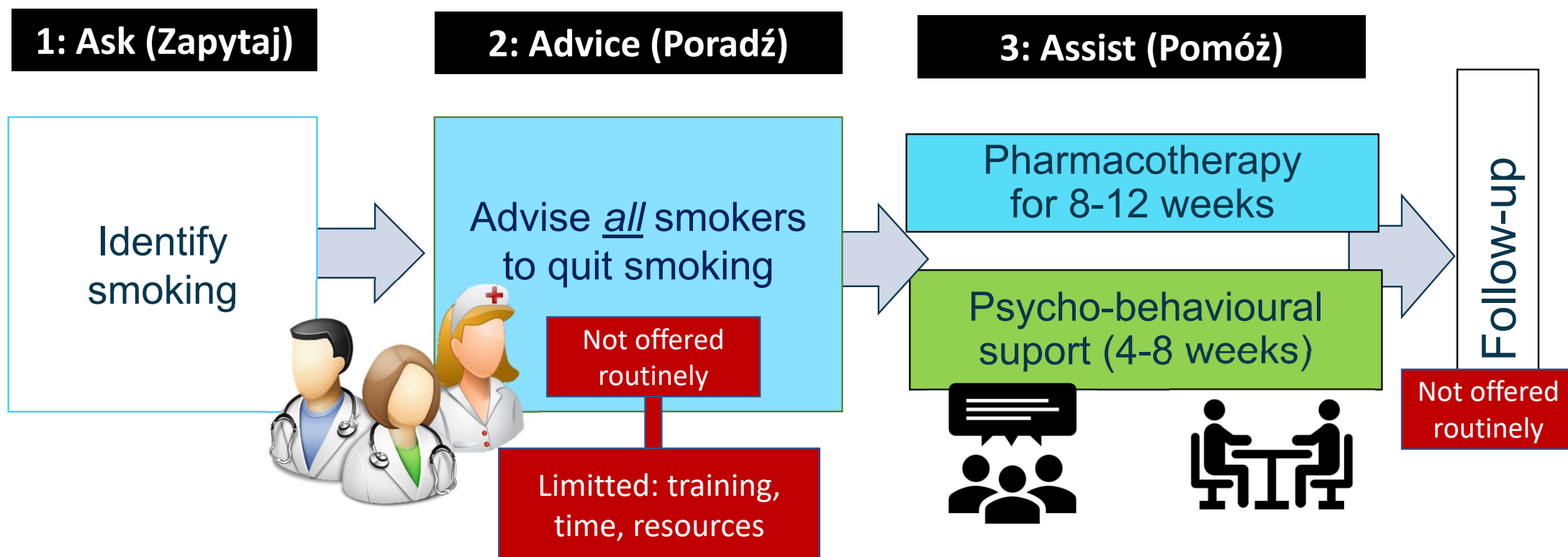
1. Increase the number of smokers who make a quit attempt 
2. Increase access to and use of evidence-based cessation support
3. Improve adherence to pharmacotherapy
4. Support smokers to remain abstinent for at least 4 weeks (ideally 6 months) to increase long-term quit rates 

Solutions?

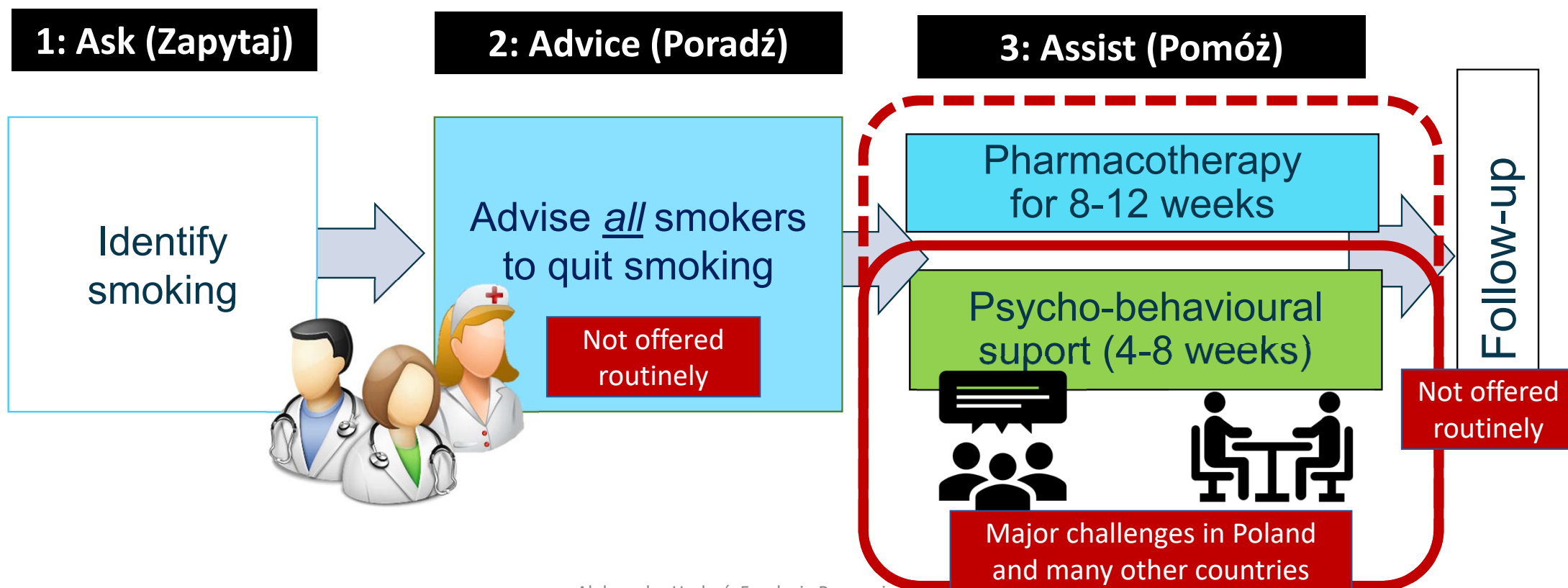
Brief advice (3As) – a highly cost-effective treatment



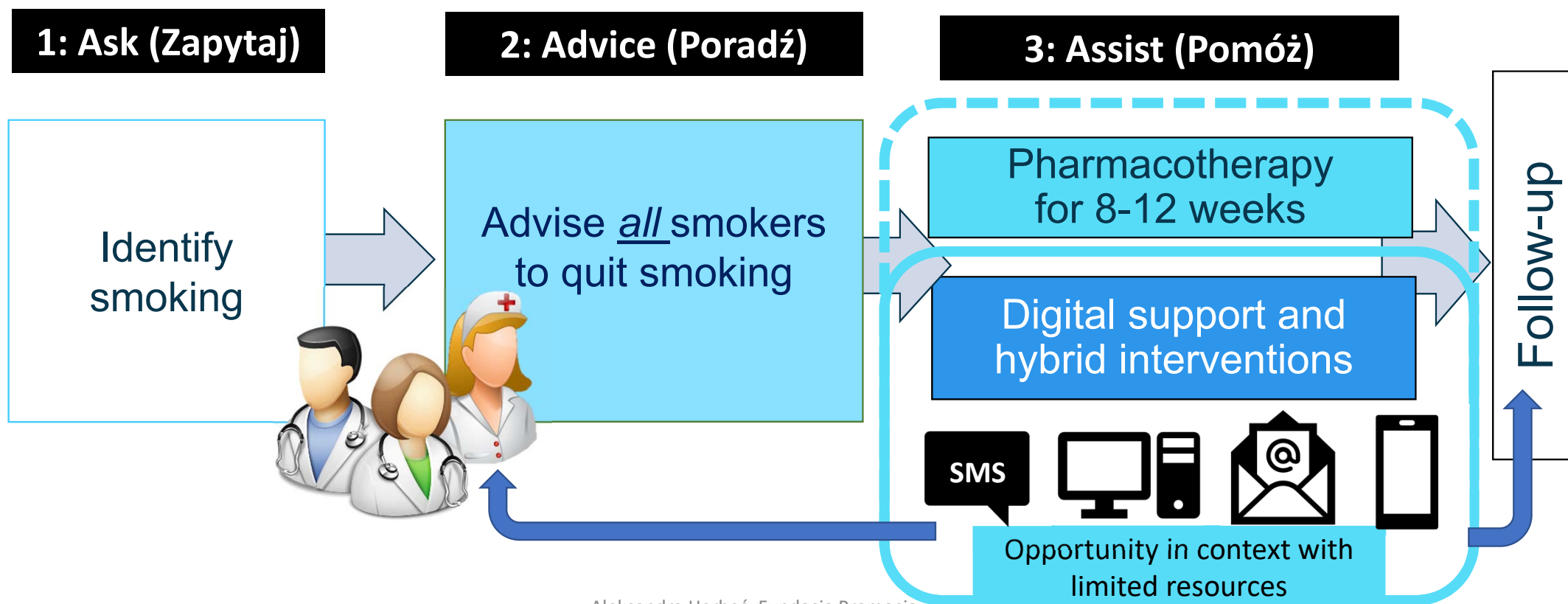
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Hybrid Interventions – the future of smoking cessation



Developing Digital Stop smoking Support

TOP-DOWN
Theory + Components
of effective traditional
face-to-face
treatments

**Adaptation
into 4-8 week
programmes**

| Medium | Level of support |
|--|----------------------------|
| SMS-texting | Good (OR=1.63) |
| Web-based (tailored, personalised) | Low-Moderate (OR=1.15) |
| Hybrid (web-based and face-to-face) | Good (OR=1.69) |
| Smartphone-based | Lack of strong support yet |

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**Cost-effective if used
by many smokers**

BOTTOM-UP
Technology- and data-
driven components

innovation

| New interventions awaiting evaluation | |
|--|---|
| Dynamically tailored Just-in-time interventions | Artificial Intelligence and chat- bots |
| Geo-sensing | Digital devices that detect smoking and vitals (e.g. HR and carbon monoxide monitors) |

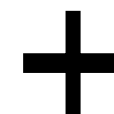
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| | |
|-------------|---|
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|-------------|---|

**Integration as part of the
healthcare system => greater use**



A new hybrid platform to support clinicians and patients in the treatment of tobacco dependence

STAR 

Smoking Treatment Advisory Resource

STAR - Twój Asystent Rzucenia Palenia



Aleksandra Herbec, Fundacja Promocja Zdrowia
aaherbec@gmail.com



Jestem
Lekarzem

WEJDŹ >



Rzucam
Palenie

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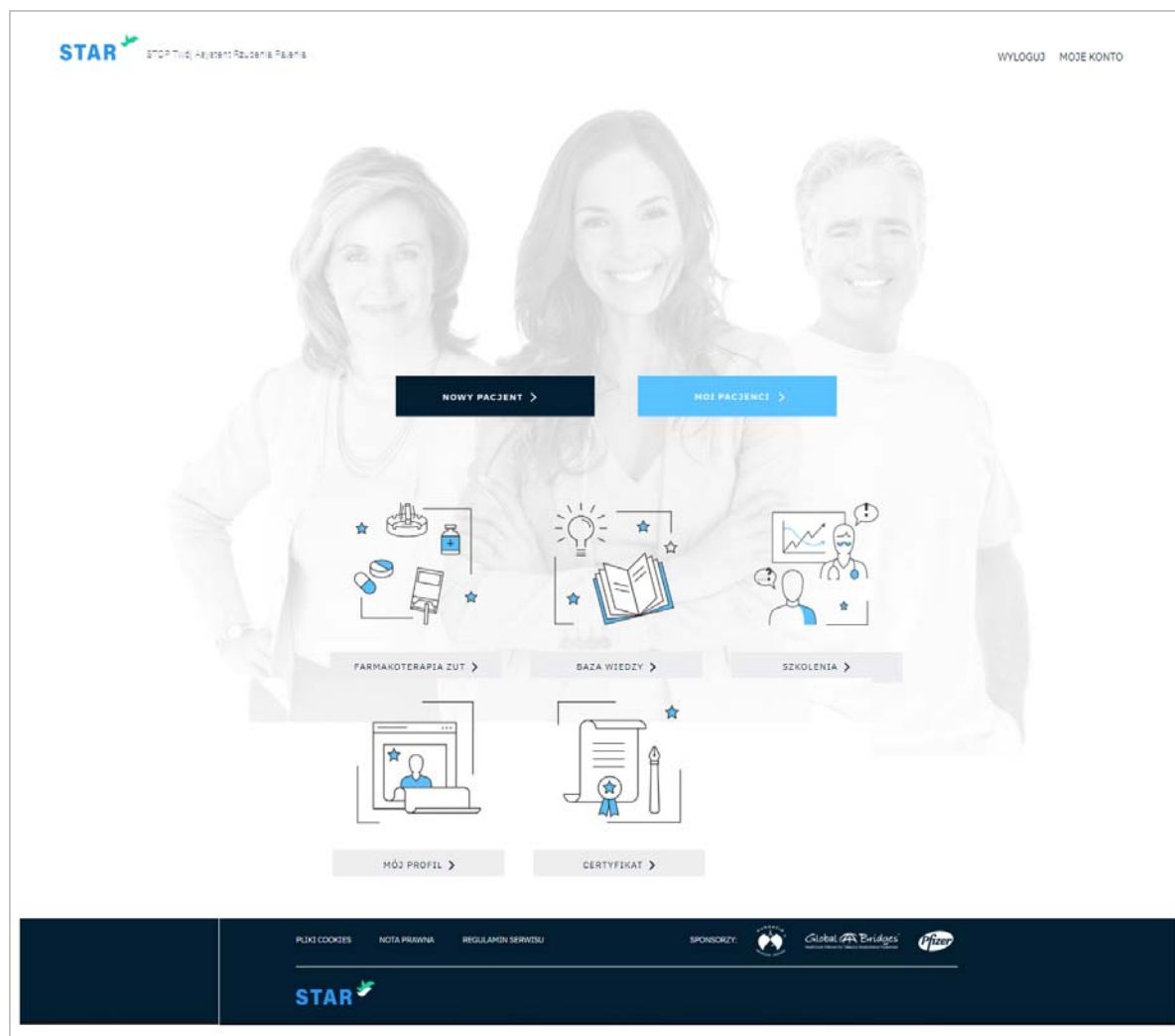
Global Bridges



STAR 

STAR 

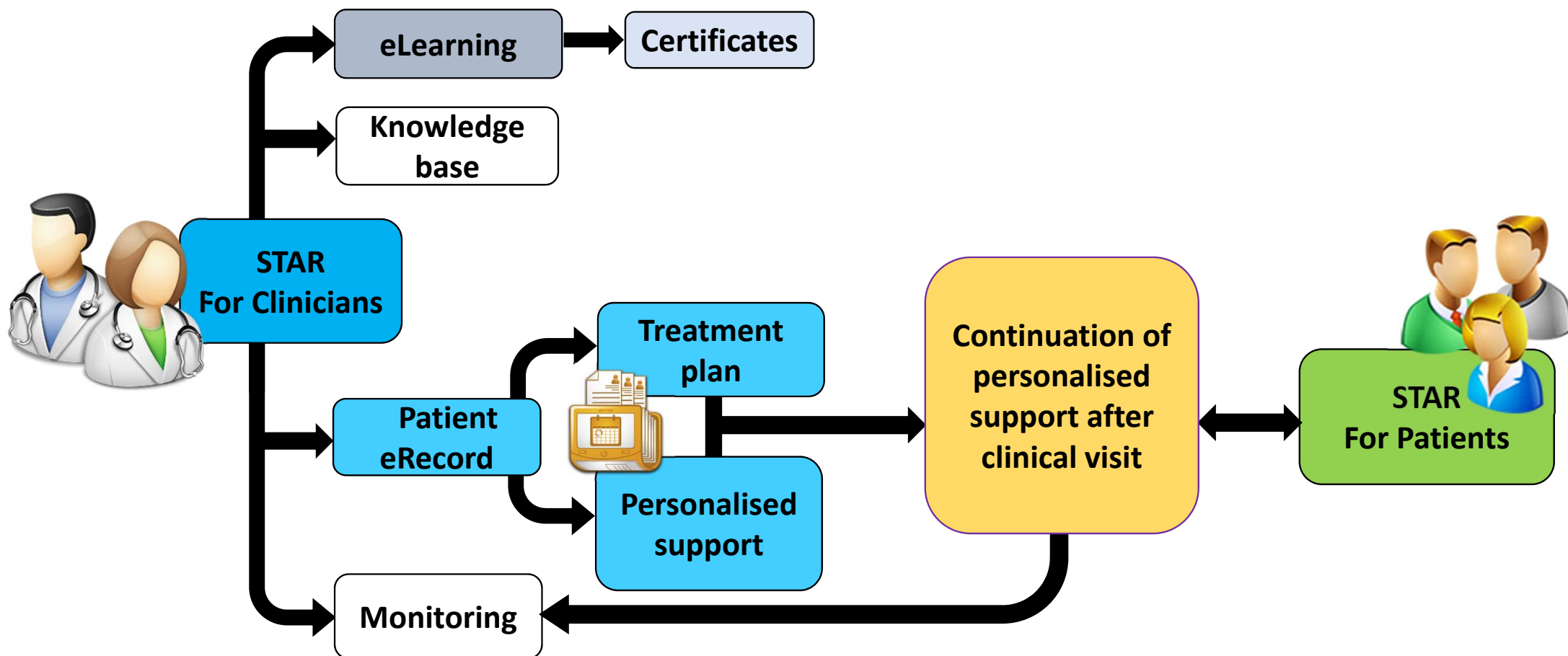
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STAR for Clinicians

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Novel Hybrid Platform **STAR**



STAR - Platform and research programme 2019



Kalisz city and the region – new programmes

1. Healthcare professionals to gain skills to support smokers
2. Every patient who smokes should be offered very brief advice and pharmacotherapy
3. Patients should be directed to additional support:
 - face-to-face support
 - STAR or other digital programmes



Thank you!

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