

Evolution of a national program to measure appropriateness of antimicrobial prescribing

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Background and description

The link between antimicrobial overuse and resistance is well-established. Adequate monitoring and evaluation of usage are key components of effective antimicrobial stewardship (AMS). We identified the need for AMS expertise and an auditing tool that is both meaningful and methodologically robust that can be used nationally. Thus, The National Antimicrobial Prescribing Survey (NAPS), a standardised survey with a nationally coordinated program was conceived.

Using the continuous quality improvement cycle of Plan, Do, Check and Act (PDCA), we developed an antimicrobial prescribing survey that has been implemented on a national scale.

Action

A team of infectious diseases physicians, pharmacists, clinical microbiologists and information technology developers gathered to plan an iterative survey, with a view to refine over time to meet contextual needs of AMS initiatives across facility types. The program began with pilot studies carried out in different health domains - hospitals, aged-care facilities and surgical specialties. Each pilot received feedback for an ongoing program with a peer comparison platform. With this feedback, NAPS was launched in each domain, the first in 2013 received a 151 participants. NAPS has been active ever since, now with over 450 hospitals and almost 600 aged-care facilities participating nationally.

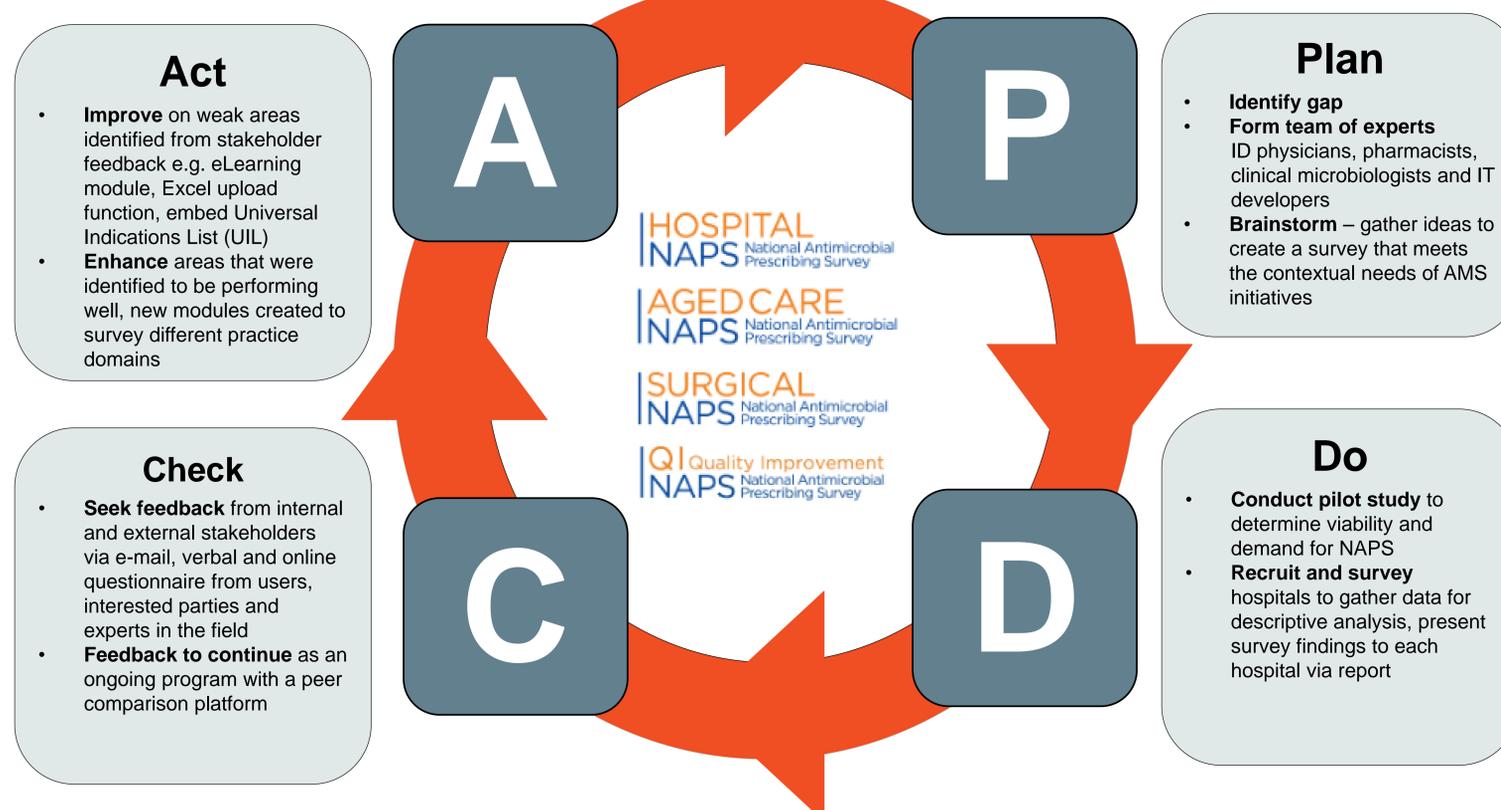


Figure 1. Plan, Do, Check, Act and the NAPS program

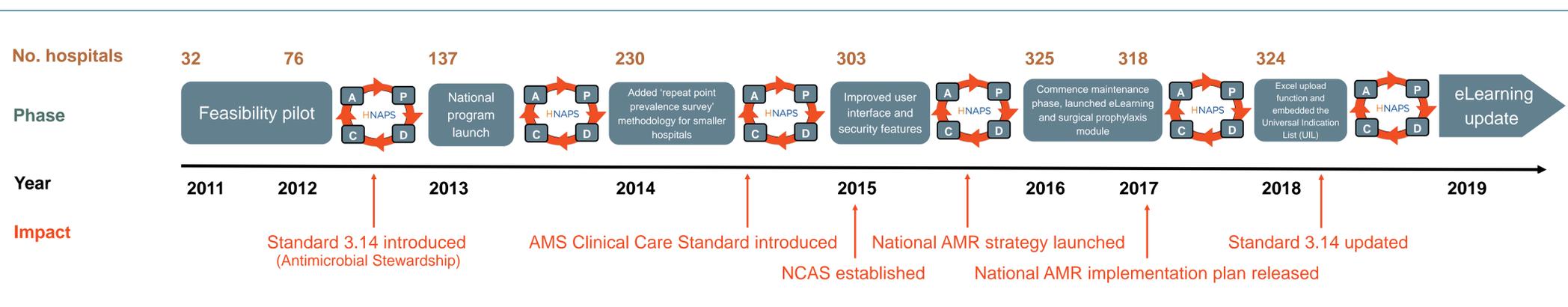


Figure 2. Growth of Hospital NAPS and its impact on the Australian AMS landscape

Evaluation

The NAPS program has an ongoing feedback process for improvement; e-mail, verbal and online questionnaire feedback is received and evaluated as part of its business as usual activities. NAPS is ever-evolving to better suit the needs of its users, owing to the continuous quality improvement mindset of the team and PDCA model that drives it. Automated reporting, the e-Learning module and a comprehensive Australian standardised indication list are all direct results of this.

Implications

The Hospital NAPS paved the way for the growth of the NAPS program and has driven AMS action in Australia. The release of National AMS and clinical care standards, establishment of the National Centre for Antimicrobial Stewardship (NCAS) and development of a national strategy and implementation plans for AMS were all directly or indirectly influenced by the Hospital NAPS (Figure 2). The NAPS program is now in its seventh year in operation and continues to branch out to other healthcare domains and countries. Our experience highlights the importance of incorporating the PDCA model for project scalability and sustainability.

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