Cost of Unintended Pregnancy in Sweden: The Role of Increased Use of Long-acting Reversible Contraceptive Methods

Objective: The analysis aimed to estimate cost of unintended pregnancy (UP) in Sweden from a societal perspective, and to explore the impact of increased uptake of long-acting reversible contraceptives (LARC) on burden of UP.

Methods: An economic model was constructed and informed by published evidence. The target population comprised women aged 20-29 years requiring contraception and at risk of UP. Contraceptive usage and failure rates were used to estimate the proportion of UP attributable to imperfect adherence. Subsequently, the impact on UP if 5% of women using short-acting reversible contraception (SARC: oral contraception, patch, ring, injection, condom) would switch to LARC (implant, IUD, IUS) was explored. The scenario analysis included a broader population (15-44 years) and the minimum duration of LARC usage required to achieve cost neutrality following switch.

Results: The model estimated 34,331 UPs, resulting in either abortion (spontaneous, induced, or ectopic) or live birth, in the 20-29 age group, with projected costs of SEK 680 million per year. Of those, imperfect adherence to contraception was accounted for 56% of UPs with respective costs of SEK 382 million. In the 15-44 age group, 73,214 UPs were estimated with associated costs amounting to SEK1.4 billion per year. A 5% switch from SARC to LARC could save nearly SEK 35 million in the 20-29 year age group, and nearly SEK 80 million in the 15-44 year age group. Despite higher initial costs, LARC methods required less than two years of use before cost savings were generated following a switch from SARC to LARC.

Conclusion: UPs represent a substantial and partly avoidable economic burden in Sweden. A large proportion of UPs are attributable to imperfect adherence. Increased uptake of LARC may reduce UP:s and generate cost savings.