labHTA
Laboratory for Health Technology Assessment

ECI Organisation of European Cancer Institutes
In collaboration with SAINT SAVVAS

Oncology Days ECI 47
WORKING TOGETHER TO IMPROVE QUALITY AND REDUCE INEQUALITIES
ATHENS 2025
GENERAL ASSEMBLY AND SCIENTIFIC PROGRAMME
11 - 13 June 2025
Royal Olympic Hotel

ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΑΤΤΙΚΗΣ
UNIVERSITY OF WEST ATTICA

Integrating technology in home oncology care: the future is now

Kostas Athanasakis

Assistant Professor in Health Economics, University of West Attica

Visiting Fellow, London School of Economics and Political Science (LSE)

Affiliated Researcher, Archimedes, Athena Research Center, Greece

Key systemic challenges today

- Suppy side constraints:
  - Scarce **budgets** vs. increasing demand
  - **Delays** in diagnoses
  - Inefficient **referral** systems
  - The tradition of **centralized treatment models** and the subsequent path dependency
- Demand side challenges:
  - Increasing **volume** of care (new diagnoses – leaps in survival gains)
  - **Access** to new treatments
  - Focus on **quality** of care and **choices**
- Regional **inequalities** create barriers to timely and equitable care
- Underdeveloped primary and long-term care increase hospital burden

Key Systemic Barriers to Efficiency & Access

1. **Understaffing** & brain drain
2. **Fragmentation** in care
3. Outdated **infrastructure** & equipment
4. **Inefficient** resource allocation & funding gaps
5. Cultural **resistance** to change and innovation
6. Poor **data** collection & use for decision-making

Systemic barriers can lead to:

- Especially for settings with limited resources and lack of efficient governance, as in Greece, systemic barriers can lead to
  - Long delays for diagnostics & treatment start
  - Preventable hospitalisations due to weak PHC
  - Limited palliative care & home services
  - Inconsistent patient navigation and follow-up

- This leads to efficiency losses, increased direct costs, increased productivity losses by patients and carers
  - Patients in need to commute or even migrate in order to receive care

What can be done? Potential solutions, using Greece as a case study

What can be done? Potential solutions for Greece

- **Pillar 1 — Strengthening Human Resources**
  - Incentives to retain/attract professionals (esp. rural/oncology)
  - Improved working conditions and pay structures
  - Continuous training with focus on new technologies
  - Flexible work policies to reduce burnout

- **Pillar 2 — Enhancing Primary Health Care**
  - Integrated network of personal doctors
  - Equipping local centers for minor oncological follow-ups
  - Community-based prevention:
    - Screenings (breast, colorectal, prostate, cervical)
    - Awareness campaigns on early signs

What can be done? Potential solutions for Greece

- **Pillar 3 — Integrated Care Pathways**
  - Connect PHC with regional cancer centers
  - Defined patient pathways by disease type and geography
  - Teleconsultation and referral networks to reduce travel

- **Pillar 4 — Digital Transformation**
  - Nationwide electronic patient record system
  - Expansion of tele-oncology services
  - Use of AI in diagnostics, triage & resource planning
  - Real-time data for performance monitoring

- **Pillar 5 — Infrastructure & Equipment**
  - Invest in new technologies, following clinical, economic and societal assessment (HTA)

Greece: Innovation in Practice — 'Oikothen' Programme

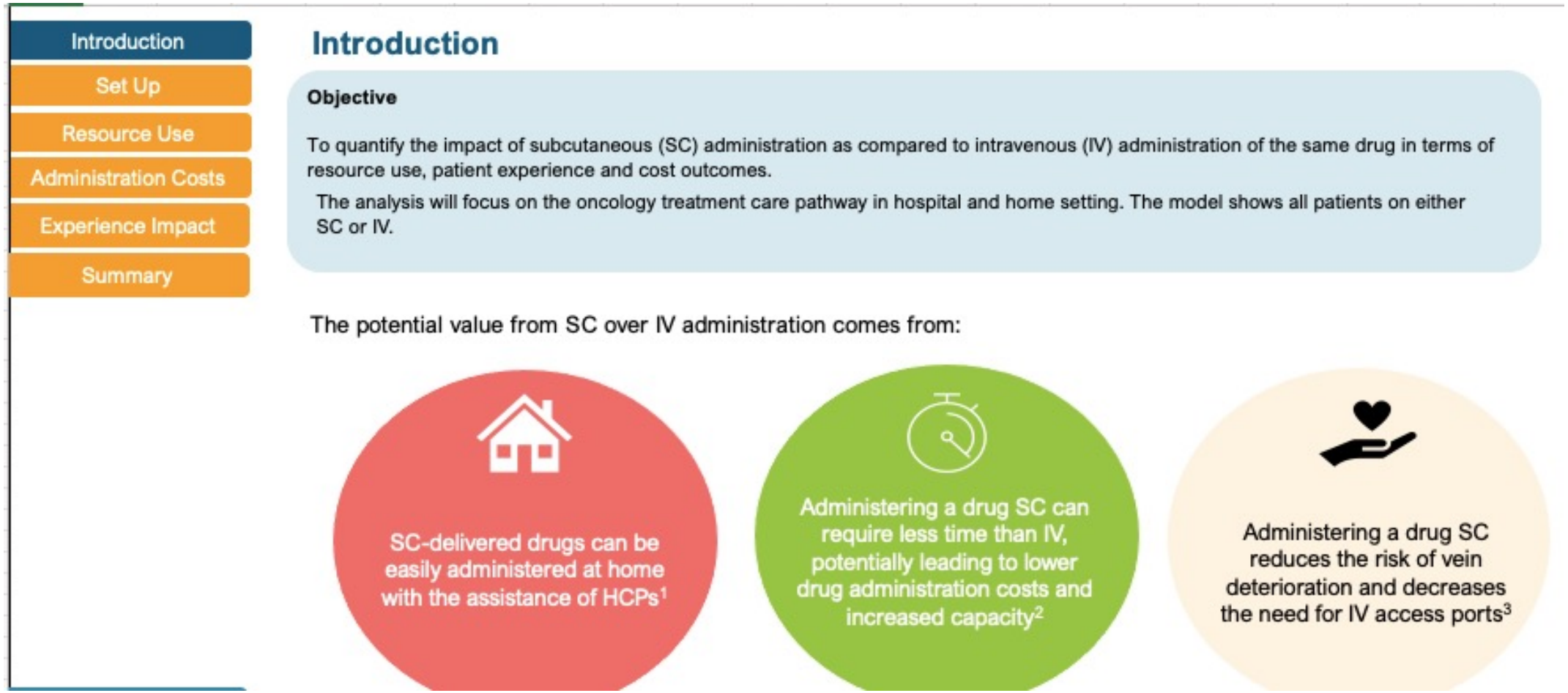
- Home-based care for cancer patients
- Mobile units provide treatment & monitoring
- Piloted at “St Savvas” Cancer Hospital
- Expansion underway; results show improved satisfaction & reduced hospital load
- Integration of telemedicine & wearables planned

Doing things differently: The prospect of newer and decentralized modes of treatment administration

- **A typical case: Shift from IV to SC administration for eligible therapies**
- Benefits:
  - Reduced hospital congestion
  - Fewer infections
  - Lower caregiver burden
  - Better access for remote patients
- Needs reimbursement reform and evidence-informed decisions

Cases such as the previous require data for decisions

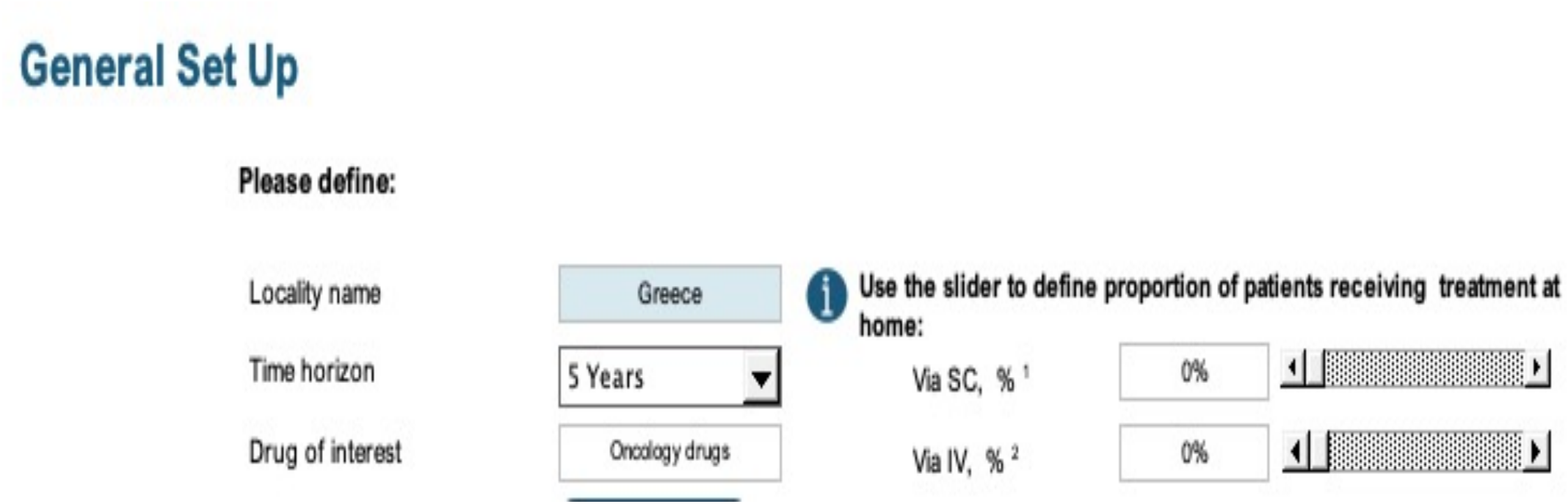
Creating a product agnostic model to estimate all aspects of value of SC therapies



A model that incorporates 26 value dimensions

	Value Element	Definition
1	Avoidance of mistakes/errors	Change in the frequency of medical/staff errors during the preparation or administration of treatment
2	Productivity Loss - Carers	Changes in the time devoted by carers for a person in infusion therapy - Difference between SC and IV
3	Number of patients in treatment	Total number of patients that can receive treatment inside a hospital or on an outpatient basis (IV+SC)
4	Possibility of self-administration (if possible per SPC)	Number of patients that could self-administer treatment after training
5	Hospital Capacity	Total number of patients that can receive IV+SC treatment in the hospital setting. Per hospital or total system
6	Possibility of medical tourism	Measures the number of persons that could continue their treatment in the course of a visit in the country (IV vs. SC)
7	Deterioration of the veins	Measures the number of patients that have suffered damage in the blood vessels due to the IV process
8	Staff satisfaction	Measures job satisfaction of the personnel in infusion departments (and the change following the introduction of SC treatments)
9	Patient satisfaction	Change in patient satisfaction from hospital services (IV vs SC)
10	Equity in access	Estimates whether those that need a treatment do have access to it, regardless of socioeconomic or other criteria + changes in this estimate between SC vs. IV
11	Hospital Acquired Infections	Change in the percentage or number of HAIs following the introduction of SC treatments
12	Staff burnout	Change in the percentage of staff that are on a burnout status (before - after the introduction of SC treatments)
13	Transportation costs	Expenditure for moving towards and from the hospital in order to receive treatment - Change on a per patient basis following the introduction of SC
14	Cost of consumables - cost of discarding	The cost of consumables used during IV infusions (could include cost of discarding waste)
15	Complaints	Written (or verbal) complaints towards the healthcare facility by patients in SC or IV treatment
16	Occupational hazzard/accidents	Change in occupational accidents - staff on infusion sites. Before and after the introduction of SC treatments
17	Change in average cost per patient	The change in the average cost per treatment for SC or IV patients. Per patient/hospital/total. Direct costs only
18	Local or systemic infections	Change in the percentage of patients with a local or systemic infection, depending on the mode of treatment
19	Drug wastage	Change in the quantity of the medication that is leftover and discarded (IV vs SC)
20	Quality of Life (patients)	Change in HRQoL in persons in SC or IV treatment (same agent, matched patients if possible)
21	Quality of Life (carers)	Change in HRQoL in persons in SC or IV treatment (same agent, matched carers if possible)
22	Adherence/Compliance to treatment	Percentage of patients that receive treatment according to orders and in specified timeframes (IV vs SC) without ommitting doses or experiencing delays
23	Administration on an outpatient basis	The number of patients that can receive treatment NOT within a hospital facility
24	Waiting time	The time from the moment a patient arrives at the hospital until they start the infusion
25	Transportation time	Time required for moving towards and from the hospital in order to receive treatment - Change on a per patient basis following the introduction of SC
26	Staff times (for different types of staff)	Average time the staff devotes on a patient that is on SC or IV treatment. Separate estimates according to type of staff

The model incorporates the aspect (and quantifies benefits) of home-based administration



The model presents the results in a user-friendly and transparent manner

Summary Results

Use the dropdown to select value elements of interest to view:

1. Difference in hours

Proportion of patients recieving treatment at home:

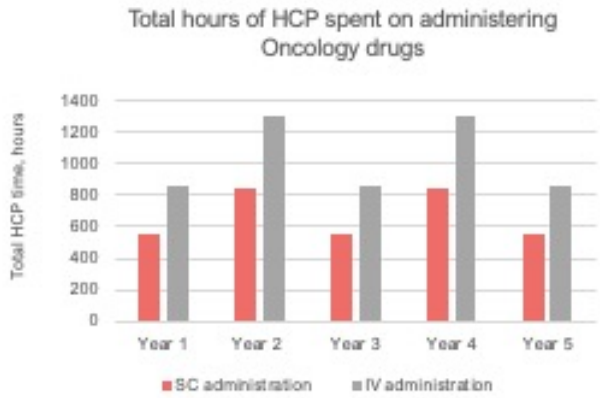
Via SC, % 0%

Via IV, % 0%

Difference in hours after treating 600 patients over 5 years

	SC Administration	IV Administration	SC vs IV (Hours)
Total hours spent on administration over 5 years			
HCP			
Doctor	434	434	0
Nurse	2166	3899	-1733
Total HCP time:	**2600**	**4333**	-1733
Patient	**18193**	**44183**	-25990
Informal Carer	**18193**	**44183**	-25990

Using SC instead of IV decreases total HCP time by 1733 hours and reduces patient hours spent receiving Oncology treatment by 25990 over 5 years.



Last note: Alongside data for decisions, strive to empower patients

- “Patient navigators” to guide through care pathways
- Feedback loops (experience surveys, complaints handling)
- Education programmes for treatment literacy and self-management
- Stronger patient voice in policy and priority setting

- Disseminate and learn from best practices
  - Digitalization, shared decision making, clinical governance, novel workflow models built on patient needs

Some takeaways

- Move care closer to patients through home & local services
- Rebuild trust and continuity in care
- Prioritise equity, technology, and prevention
- Empower patients in a structured, systematic way
- Use oncology as a pilot for broader system reform
- The future of cancer care lies in 3 I’s: Integration, Innovation, Inclusion
- Reforms must be holistic, evidence-based, and patient-centric

Thank you!

kathanasakis@uniwa.gr