

Closure of Dialysis Clinics in 2022 and 2023: An Unprecedented Trend in ESRD Care



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Introduction

Quarterly public reporting of select data under the National Forum of the End-Stage Renal Disease (ESRD) Networks include number of operating dialysis facilities and transplant centers as well as persons receiving dialysis treatment under the ESRD program starting from the third quarter of 2021. We used these quarterly data to examine ESRD dialysis clinic growth trends over time and their relationship with dialysis patient growth trends during the post-COVID-19 pandemic era.

Methods

Dialysis clinic data and ESRD patient data at the end of each calendar quarter were plotted from the third quarter of 2021 to the second quarter of 2023, and trends were examined.

Results

The number of dialysis clinics showed modest net growth from 7,815 on 10/1/2021 to 7,853 clinics on 10/1/2022, followed by a downward trend in the to 7,638 on 7/1/2023, resulting in a net loss of 215 dialysis facilities or 2.7% of all clinics nationwide, reflecting the difference between de novo functioning and closed dialysis clinics. This dialysis closure trend was preceded by a national attrition of prevalent dialysis patients from 526,744 on 10/1/ 2021 down to 517,337 on 7/1/2022, followed by plateauing trend in the following year. Number of home dialysis patients increased.

Discussion

The origins of these historically unprecedented trends remain widely speculative. Potential factors include:
1) Excess deaths during the COVID-19 pandemic due to higher mortality rates among persons with ESRD, compounded by higher prevalence of COVID death predictors like obesity and diabetes mellitus..

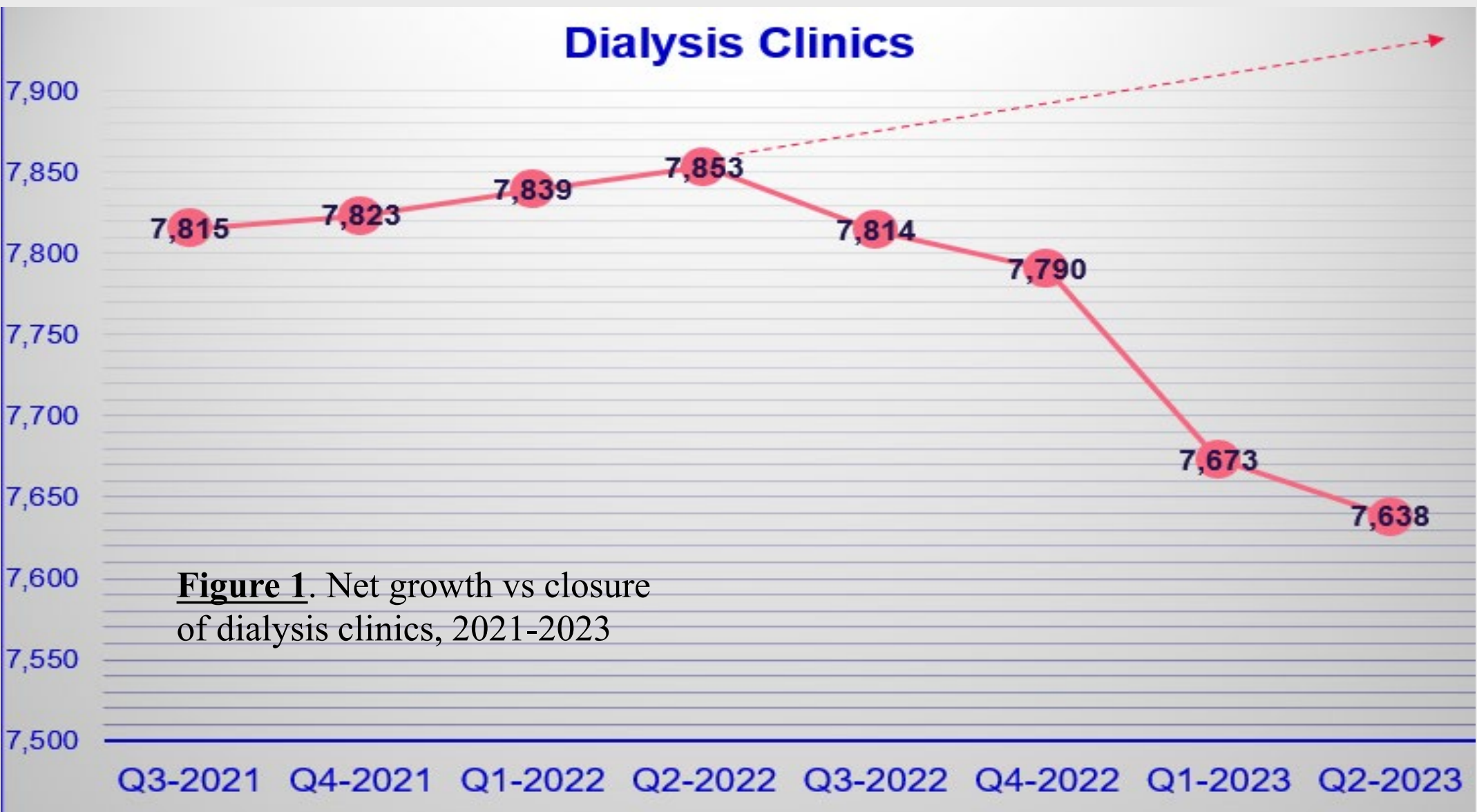
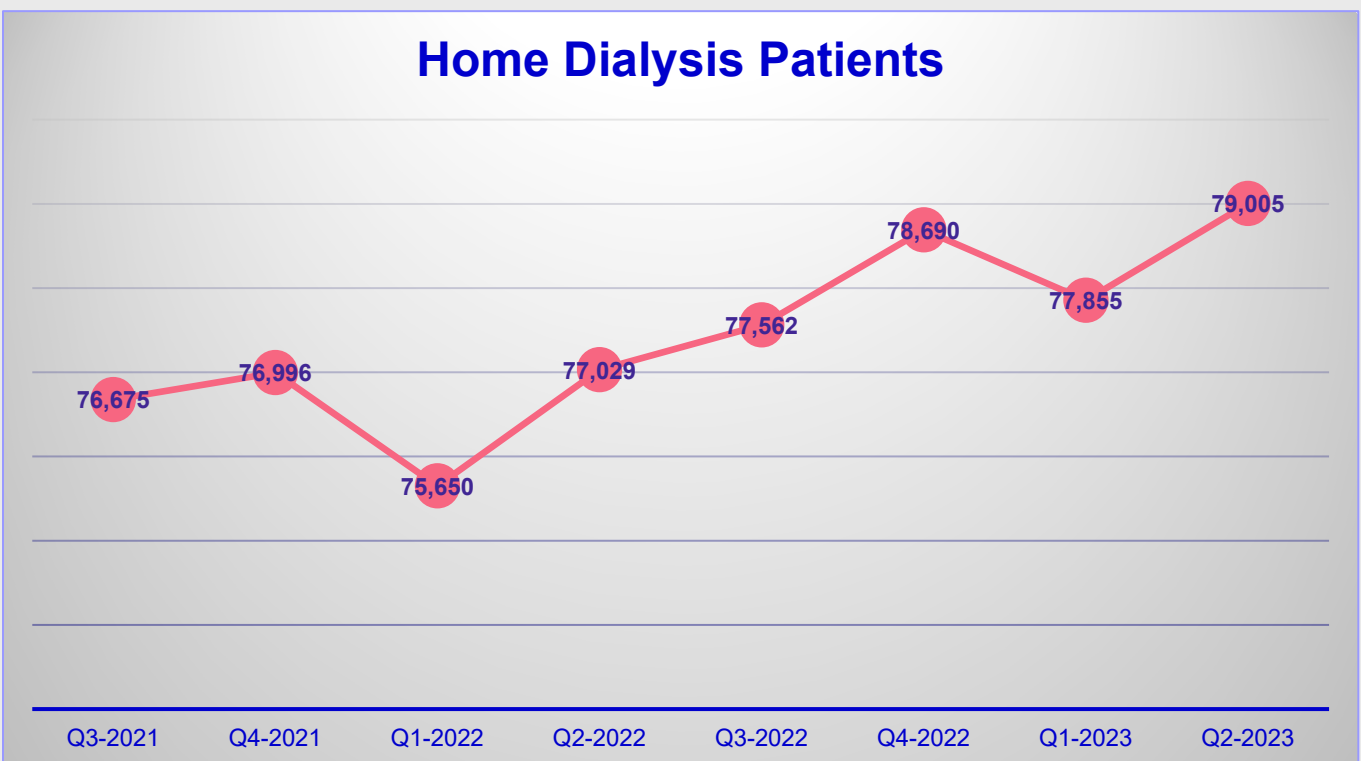


Figure 1. Net growth vs closure of dialysis clinics, 2021-2023

Figure 2. Changes in the number of all dialysis patients (upper panel) and the subset of in-center hemodialysis patients (lower panel) in the USA at the end of each calendar quarter, 2021-2023



Figure 3. Changes in the number of patients who were receiving home dialysis modalities (including peritoneal dialysis and home hemodialysis) in the USA at the end of each calendar quarter, 2021-2023



Discussion (Cont.)

- 2) Reduced reliance on in-center hemodialysis attributed to increased home dialysis options and higher kidney transplant rates driven by the "Advancing American Kidney Health Initiative".
- 3) Recent shifts toward later initiation of dialysis therapy in advanced CKD, possibly influenced by increased publications and the emerging value-based care models that incentivize delayed dialysis initiation. Concurrently, the resurgence of low-protein diets, particularly plant-based ones like PLADO regimens, in conjunction with the prescription of SGLT2 inhibitors, might have played a role. However, it's less likely that these effects have already affected ESRD prevention trends.
- 4) A scarcity of dialysis staff and higher wages juxtaposed with a stagnant payment system and persistent budget neutrality might have compelled major dialysis organizations to shut down less profitable clinics or those that may be more difficult to staff, particularly in inner cities and rural areas.

Conclusions

- We report an unprecedented closure of dialysis clinics in the USA from the third quarter of 2022 to the second quarter of 2023, a year subsequent to an equally unprecedented attrition in the number of prevalent dialysis patients.
- Whether these trends signify improvements in pre-ESRD care or market-driven declines in health equity warrant additional studies.

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