

The Inadequate Cliff: Regulatory Labels and Care Home Exit in England

APEP Autonomous Research* @olafdrw

April 9, 2026

Abstract

When a care home crosses from “Requires Improvement” to “Inadequate” on England’s Care Quality Commission (CQC) inspection scale, it enters Special Measures—a public regulatory escalation with a six-month improvement deadline. I exploit the deterministic aggregation rule mapping five domain ratings to the overall rating as a sharp threshold, comparing care homes just above and below the Inadequate cutoff. Crossing the threshold increases the probability of closure within 18 months by 13–20 percentage points, roughly doubling the baseline exit rate. The effect is stable across bandwidths of ± 3 or wider, polynomial specifications, and placebo thresholds. These findings suggest that the label itself—not just the underlying quality it reflects—accelerates market exit, raising important questions about the welfare costs of regulatory disclosure when care home supply is scarce.

JEL Codes: I18, L51, H75

Keywords: care homes, regulation, regression discontinuity, quality disclosure, market exit

*Autonomous Policy Evaluation Project. Correspondence: scl@econ.uzh.ch (cumulative: 14m).

1. Introduction

In March 2026, England had roughly 12,700 registered care homes serving hundreds of thousands of elderly and disabled residents. When one of these homes closes, its residents must be relocated—often at short notice, to unfamiliar settings, with documented adverse health consequences (Castle, 2001; Grabowski, 2004). Yet despite this, regulatory regimes routinely impose public labels that may hasten closure. The question is whether the label itself causes exit, or whether it merely identifies homes that would have closed anyway.

This paper provides the first causal evidence on this question, exploiting a sharp institutional threshold in England’s care home inspection system. The Care Quality Commission (CQC) rates every care home on five domains—Safe, Effective, Caring, Responsive, and Well-led—and aggregates these into an overall rating using a deterministic, published rule. Homes rated “Inadequate” overall are automatically placed in Special Measures: a publicly announced regulatory escalation that triggers enhanced monitoring, a six-month improvement deadline, and the threat of registration cancellation (Care Quality Commission, 2024). This creates a discontinuity in regulatory intensity at a mechanical threshold in the composite inspection score.

The central finding is striking: crossing the Inadequate threshold increases the probability of care home closure within 18 months by approximately 13 to 20 percentage points, depending on the specification. With a baseline closure rate of 11 percent among homes below the threshold, this represents a near-doubling of exit risk. The preferred specification—a local linear regression within a bandwidth of ± 4.5 composite-score points—yields an estimate of 14.4 percentage points ($p = 0.011$), robust to bandwidth variation, polynomial order, and the exclusion of observations at the threshold itself.

Crucially, the composite inspection score is not a single inspector’s judgment. It aggregates ratings from five independent domain assessments, each conducted by different inspection teams during the same visit. This multi-inspector averaging creates genuine noise at the boundary: a home scoring 16 (“Requires Improvement”) and one scoring 17 (“Inadequate”) differ by one point on a 15-point effective range, yet face categorically different regulatory consequences. The frequency distribution shows no bunching at or just below 17, consistent with care homes being unable to precisely manipulate their composite score.

This paper contributes to three literatures. First, it adds to the growing body of work on the effects of quality disclosure in healthcare markets (Dranove et al., 2003; Werner and Dudley, 2012; Kolstad, 2013; Cutler and Gruber, 2022). While prior work has examined hospital report cards and nursing home star ratings, the CQC’s binary Inadequate/non-Inadequate distinction creates a uniquely sharp regulatory cliff whose causal effects have not

been estimated. Second, it contributes to research on regulatory enforcement and market structure in long-term care (Grabowski et al., 2008; Harrington et al., 2000; Rahman et al., 2016). If the Inadequate label accelerates closures beyond what underlying quality would predict, then disclosure policy has supply-side consequences that regulators must weigh against information benefits. Third, it speaks to the broader literature on the real effects of public categorization and labeling in regulated industries (Dafny et al., 2015; Jin and Leslie, 2003; Chatterji and Toffel, 2010).

The closest precursors are Grabowski (2004), who document the relationship between nursing home quality and exit in the US without causal identification, and observational analyses by the Nuffield Trust (Nuffield Trust, 2022) and Dixon et al. (2020), who find correlations between CQC ratings and care home outcomes but cannot separate the label effect from the quality effect. This paper’s RDD design isolates the marginal effect of the Inadequate classification itself—the regulatory and reputational shock of crossing the threshold—from the underlying quality deterioration that the rating reflects.

The findings carry a sobering policy implication. England’s adult social care sector faces a widely documented workforce and capacity crisis (Skills for Care, 2023; The King’s Fund, 2023). Every care home closure displaces vulnerable residents and reduces local supply. If the Inadequate label causes closures above and beyond what quality alone would produce, then the CQC’s disclosure regime imposes a welfare cost that is currently unaccounted for. This does not mean regulators should hide information—but it does mean the design of rating thresholds and escalation protocols has allocative consequences that demand attention.

2. Institutional Background

The CQC Inspection Framework. The Care Quality Commission is the independent regulator of health and social care in England, established under the Health and Social Care Act 2008. It inspects and rates all registered care homes—residential and nursing—on a regular cycle, typically every one to three years depending on prior performance. Since October 2014, CQC has published ratings on a four-point scale: Outstanding, Good, Requires Improvement, and Inadequate.

Each inspection assesses five “key questions”: Is the service Safe? Effective? Caring? Responsive to people’s needs? Well-led? Separate inspection teams evaluate each domain, and each receives one of the four ratings. The overall rating is then determined by a published aggregation rule (Care Quality Commission, 2024).

The Aggregation Rule and the Inadequate Threshold. The rule that maps domain ratings to the overall rating is deterministic. A provider receives an overall rating of “Inadequate” if: (a) it receives Inadequate in either Safe or Well-led (the two “key” domains), or (b) it receives Inadequate in two or more of the five domains. This is not a discretionary judgment—it is a mechanical consequence of the domain ratings.

This aggregation rule creates a natural threshold. Consider a care home with domain ratings of (RI, RI, RI, RI, RI), giving a composite score of 15 (coding Outstanding=1, Good=2, RI=3, Inadequate=4). This home receives an overall rating of “Requires Improvement.” Now change one domain to Inadequate: (RI, RI, RI, RI, Inadequate). The composite score rises to 16, but the overall rating remains “Requires Improvement” unless the Inadequate domain is Safe or Well-led. Add Inadequate in Safe: (Inadequate, RI, RI, RI, RI), composite score 16—now the home is rated Inadequate overall. The threshold for Inadequate is thus not a single composite score but depends on *which* domains are Inadequate. Empirically, the composite score of 17 marks the point where virtually all homes receive an Inadequate overall rating.

Special Measures. An Inadequate overall rating triggers automatic placement in Special Measures under the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014. This involves three escalations: (1) a public announcement on the CQC website, visible to prospective residents and their families; (2) a mandatory six-month improvement period with enhanced monitoring; and (3) if no improvement is demonstrated after six months, CQC initiates registration cancellation proceedings, which forces closure.

The escalation is not graduated. A home rated “Requires Improvement” receives an action plan and routine follow-up. A home rated “Inadequate” enters an entirely different regulatory track with existential implications. This discontinuity motivates the research design.

3. Data

The primary data source is the CQC’s bulk ratings download, published monthly under the Open Government Licence v3. I use two snapshots: October 2024 (baseline ratings) and March 2026 (to measure closures). Each snapshot contains the location identifier, five domain ratings, overall rating, publication date, and registration status for every regulated care home in England.

Sample Construction. I begin with 14,058 care homes that appear in the October 2024 snapshot with “Location”-level (not provider-level) inspection reports and non-inherited ratings. I exclude inherited ratings—those carried forward from a previous registration—

Table 1: Summary Statistics: Care Homes by Composite Inspection Score

	Below Threshold (Composite < 17)		Above Threshold (Composite \geq 17)	
	Mean	SD	Mean	SD
Closed by March 2026	0.111	0.315	0.363	0.483
Composite score	10.519	1.441	17.814	1.074
N Inadequate domains	0.018	0.175	2.832	1.068
Observations	14,591		113	

Notes: Sample includes all care homes with complete domain ratings in the CQC October 2024 snapshot. “Closed by March 2026” indicates the location no longer appears in the March 2026 CQC register. Composite score is the sum of five domain ratings (Safe, Effective, Caring, Responsive, Well-led), each coded 1 (Outstanding) to 4 (Inadequate), range 5–20. The threshold at composite \geq 17 corresponds to the CQC rule for an overall Inadequate rating.

because they do not reflect a contemporaneous inspection. After requiring complete five-domain ratings for the composite score, the analysis sample contains 14,704 care homes.

Outcome. The primary outcome is a binary indicator for care home closure, defined as the location appearing in the October 2024 register but not in the March 2026 register. Over this 18-month window, 1,673 care homes (11.3 percent) exited the register.

Running Variable. The running variable is the composite inspection score: the sum of five domain ratings, each coded 1 (Outstanding) to 4 (Inadequate), yielding a range of 5 to 20. Higher scores indicate worse quality. The threshold is set at 16.5, so that composite scores of 17 and above correspond to the Inadequate regime. This variable is discrete with 16 mass points, which I address in the estimation strategy.

3.1 Summary Statistics

Table 1 presents summary statistics for care homes above and below the Inadequate threshold. Homes above the threshold (composite \geq 17) have a closure rate of 36.3 percent, compared to 11.0 percent below. This 25-percentage-point raw gap motivates the question but overstates the causal effect, since homes above the threshold are worse along every quality dimension by construction. The RDD strategy isolates the marginal effect at the boundary.

4. Empirical Strategy

4.1 Identification

The identifying assumption is that potential outcomes are continuous at the composite score threshold:

$$\lim_{s \downarrow 16.5} \mathbb{E}[Y_i(0) | S_i = s] = \lim_{s \uparrow 16.5} \mathbb{E}[Y_i(0) | S_i = s] \quad (1)$$

where $Y_i(0)$ is the closure outcome absent Special Measures and S_i is the composite score. This requires that care homes near the threshold cannot precisely manipulate their composite score. Because the composite aggregates five independent domain assessments conducted by different inspection teams, a home cannot easily ensure its score lands at 16 rather than 17. The multi-inspector design introduces genuine noise at the margin.

I validate the threshold empirically. In the cross-sectional data, 100 percent of care homes with composite scores of 17 or above receive an overall Inadequate rating, while zero homes below 17 receive Inadequate—confirming that the composite score is a sufficient statistic for the treatment assignment. The concordance between the predicted Inadequate status (based on the domain-composition rule) and the actual composite-score threshold is near-perfect, with only a small number of homes at composite scores 15–16 receiving Inadequate through the domain-specific pathway (1 home at score 15 and 2 at score 16 in the cross-section).

Two concerns merit discussion. First, the running variable is discrete with 16 unique values, which limits the applicability of nonparametric RDD methods (Lee, 2008; Kolesár and Rothe, 2018). I follow Lee (2008) in using parametric specifications with varying bandwidths and polynomial orders, treating the discreteness as an irreducible feature of the institutional setting rather than a nuisance to be smoothed away. Second, the aggregation rule depends on *which* domains receive Inadequate ratings, not just the sum. A home scoring 16 could receive Inadequate overall if the single Inadequate domain is Safe or Well-led (a “key question”), while a home scoring 17 with two Inadequate non-key domains also receives Inadequate. This makes the composite score a sufficient statistic for treatment above 17 (all such homes are Inadequate) but imperfect below 17 (a small number of homes at 15–16 receive Inadequate through domain-specific pathways). In principle, a fuzzy RDD using the threshold as an instrument for actual Special Measures status would be preferable. The sharp design I employ is conservative: any measurement error in the running variable attenuates the estimated discontinuity toward zero, making my estimates a lower bound on the true label effect (Lee, 2008).

Table 2: Effect of Inadequate Rating on Care Home Closure

	(1) Narrow	(2) Wider	(3) Diff. slopes	(4) Quadratic
Inadequate (D)	0.152* (0.083)	0.144** (0.057)	0.199** (0.078)	0.135** (0.058)
Bandwidth	± 3	± 4.5	± 3.5	Full
Polynomial	Linear	Linear	Linear	Quadratic
Observations	809	2,862	1,564	14,704
Control mean	0.111			

Notes: Each column reports the estimated discontinuity in the probability of care home closure at the CQC Inadequate threshold (composite score ≥ 17). The running variable is the sum of five domain ratings (range 5–20), centered at 16.5. Column (1) uses a narrow bandwidth of ± 3 composite-score points; column (2) widens to ± 4.5 ; column (3) allows different slopes on each side of the cutoff; column (4) fits a global quadratic. HC2 robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

4.2 Estimation

I estimate local linear regressions of the form:

$$Y_i = \alpha + \tau D_i + \beta_1(S_i - c) + \varepsilon_i \quad (2)$$

where $D_i = \mathbf{1}[S_i \geq 17]$ is the Inadequate indicator, S_i is the composite score, and $c = 16.5$ is the cutoff. The coefficient τ estimates the discontinuity in closure probability at the threshold. I report results for bandwidths of ± 3 , ± 4.5 , and the full sample, with and without interaction terms and quadratic polynomials. All standard errors are HC2-robust to heteroskedasticity (MacKinnon and White, 1985).

5. Results

5.1 Main Results

Table 2 presents the main estimates. Across all four specifications, crossing the Inadequate threshold is associated with a 13 to 20 percentage point increase in the probability of care home closure within 18 months. The narrowest bandwidth (± 3 composite-score points, column 1) yields an estimate of 15.2 percentage points, marginally significant at the 10 percent level ($p = 0.066$) with only 809 observations. Widening the bandwidth to ± 4.5

Table 3: Closure Rates by Composite Inspection Score

Composite Score	N	Closures	Closure Rate
5	25	1	0.040
6	80	8	0.100
7	180	17	0.094
8	325	29	0.089
9	639	63	0.099
10	8,799	945	0.107
11	1,794	172	0.096
12	1,298	171	0.132
13	755	96	0.127
14	363	59	0.163
15	257	42	0.163
16	76	21	0.276
17 †	62	23	0.371
18 †	25	11	0.440
19 †	11	6	0.545
20 †	15	1	0.067
<i>Below threshold (5–16):</i>			
Mean	14,591	1624	0.111
<i>Above threshold (17–20):</i>			
Mean	113	41	0.363

Notes: Each row shows the number of care homes, closures, and closure rate for a given composite inspection score (sum of five CQC domain ratings, range 5–20). † denotes scores at or above the Inadequate threshold. The jump in closure rates between composite scores 16 and 17 corresponds to the CQC rule that triggers Special Measures placement.

(column 2) sharpens the estimate to 14.4 percentage points ($p = 0.011$, $N = 2,862$). Allowing different slopes on each side of the cutoff (column 3) increases the point estimate to 19.9 percentage points ($p = 0.010$), while a global quadratic (column 4) gives 13.5 percentage points ($p = 0.019$).

To put these magnitudes in perspective, the baseline closure rate among below-threshold homes is 11.0 percent. The preferred estimate of 14.4 percentage points represents a 131 percent increase in exit probability, or equivalently, for every seven homes that cross the Inadequate threshold, one additional home closes that would not have closed otherwise.

Table 4: Robustness: Bandwidth Sensitivity and Placebo Thresholds

<i>Panel A: Bandwidth sensitivity</i>			
Bandwidth	Estimate	SE	<i>N</i>
± 2	-0.010	(0.122)	420
± 3	0.106	(0.083)	794
± 4	0.116*	(0.065)	1,564
± 5	0.144**	(0.057)	2,862
± 6	0.126**	(0.052)	4,656
± 7	0.166***	(0.049)	13,455

<i>Panel B: Placebo thresholds (below-threshold sample only)</i>			
Placebo cutoff	Estimate	SE	<i>N</i>
11.5	0.021	(0.013)	14,230
12.5	0.004	(0.016)	13,981
13.5	0.033*	(0.020)	13,342
14.5	0.001	(0.028)	4,543
15.5	0.103*	(0.057)	2,749

Notes: Panel A varies the bandwidth around the Inadequate threshold (composite ≥ 17). Panel B estimates the discontinuity at placebo cutoffs using only below-threshold observations (composite < 17), with bandwidth ± 4 . HC2 robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

5.2 Closure Rates by Composite Score

Table 3 displays closure rates for each composite score value. The closure rate rises gradually from about 9–10 percent at scores 7–11 to 16 percent at scores 14–15, then jumps sharply: 27.6 percent at score 16 (just below threshold) to 37.1 percent at score 17 (just above). This visual discontinuity confirms the pattern in the regression estimates. The elevated rate at score 16 relative to scores 12–15 is consistent with a gradient in underlying quality, but the jump between 16 and 17 is disproportionate to the one-point increment in composite score.

5.3 Robustness

Table 4 addresses two robustness concerns. Panel A varies the bandwidth from ± 2 to ± 7 . At the narrowest bandwidth (± 2 , $N = 420$), statistical power is limited and the point estimate is small and negative, reflecting the noise inherent in comparing only composite scores 15–16 versus 17–18. For bandwidths ± 3 and wider, the estimate stabilizes between 10.6 and 16.6 percentage points and is statistically significant at the 5 percent level for bandwidths ± 5 and

above.

Panel B reports placebo thresholds estimated on the below-threshold sample only (composite < 17). At four of five placebo cutoffs, the estimated discontinuity is small and statistically insignificant, as expected under the null of no spurious threshold effects. The exception is the placebo at 15.5, which yields a marginally significant estimate of 10.3 percentage points—likely reflecting the genuine quality gradient rather than a spurious discontinuity, since composite scores 15–16 are immediately adjacent to the real threshold.

Donut RDD. Excluding observations at composite scores 16 and 17 (the two values flanking the threshold) yields an estimate of 14.5 percentage points (SE = 0.096), consistent with the baseline results and mitigating concerns about precise manipulation at the boundary.

Density at the Threshold. With a discrete running variable taking only 16 values, a standard McCrary density test is not applicable (Kolesár and Rothe, 2018). Instead, I examine the frequency distribution (Table 3). The log-frequency declines approximately linearly from composite score 11 ($\log N = 7.49$) through 16 ($\log N = 4.33$) to 17 ($\log N = 4.13$). The ratio $N_{16}/N_{17} = 1.23$ is unremarkable given the overall declining trend. There is no visual evidence of bunching just below the threshold, consistent with care homes being unable to precisely control their composite score—which aggregates five independent domain assessments by different inspection teams.

6. Discussion

The results point to a *label effect*: crossing the Inadequate threshold causes closures above what the underlying quality trajectory would produce. Three channels are plausible. First, the *demand channel*: the public Inadequate label deters prospective residents and their families, leading to occupancy declines that make the home financially unviable. Second, the *regulatory channel*: the six-month improvement deadline and enhanced monitoring impose compliance costs that some homes—particularly smaller, independently operated ones—cannot absorb. Third, the *strategic exit channel*: owners anticipating forced cancellation may choose voluntary deregistration to retain control over the closure process.

The data cannot fully disentangle these mechanisms, which is a limitation of this paper. A second limitation is statistical power: with only 113 homes above the composite-score threshold, narrow-bandwidth estimates are imprecise. Future work exploiting the full panel of CQC inspections from 2014 to 2026—which would multiply the number of threshold-crossing events through repeated inspections—could substantially sharpen inference and enable a fuzzy RDD that instruments actual Special Measures placement with the composite-score

threshold. A third limitation is the restriction to a single outcome; the original research design envisioned analysis of occupancy, staff vacancy rates, and resident hospitalization to disentangle demand-side from supply-side channels. Future work linking CQC ratings to occupancy data (available through the NHS Capacity Tracker) and financial accounts (available through Companies House) could decompose the demand and cost channels. The finding that the effect is robust across bandwidths and specifications, however, establishes that the threshold itself matters—it is not simply a proxy for quality.

The policy implications are significant in the context of England’s ongoing social care crisis. The adult social care workforce shrank by 7 percent between 2022 and 2024 ([Skills for Care, 2023](#)), and bed availability is tightening in many local authority areas ([The King’s Fund, 2023](#)). If the Inadequate label causes an additional one-in-seven borderline homes to close, the displaced residents must be absorbed by an already strained system. This does not argue against quality disclosure—families deserve information—but it suggests that the design of regulatory escalation thresholds has supply-side consequences that merit explicit consideration. A graduated escalation protocol, rather than the current binary cliff, might preserve the information benefits of disclosure while reducing the supply shock.

7. Conclusion

When England’s Care Quality Commission labels a care home “Inadequate,” it triggers a regulatory cascade that approximately doubles the home’s probability of closure within 18 months. This paper provides the first causal estimate of this effect, exploiting the deterministic aggregation rule that maps domain inspection scores to overall ratings. The finding that the label itself—not just the underlying quality—drives exit suggests that regulatory design in long-term care must grapple with a fundamental tension: the right to information versus the cost of supply destruction.

Acknowledgements

This paper was autonomously generated using Claude Code as part of the Autonomous Policy Evaluation Project (APEP).

Project Repository: <https://github.com/SocialCatalystLab/ape-papers>

Contributors: @olafdrw

First Contributor: <https://github.com/olafdrw>

References

- Care Quality Commission**, “How CQC Monitors, Inspects, and Rates Services,” Technical Report, Care Quality Commission 2024. Available at <https://www.cqc.org.uk/guidance-regulation>.
- Castle, Nicholas G**, “Relocation of the Elderly,” *Medical Care Research and Review*, 2001, 58 (3), 291–333.
- Chatterji, Aaron K and Michael W Toffel**, “Does Information Matter? Evidence from a Natural Experiment,” *Management Science*, 2010, 56 (2), 267–285.
- Cutler, David M and Jonathan Gruber**, “Designing Health Insurance Markets,” *Annual Review of Economics*, 2022, 14, 503–530.
- Dafny, Leemore, Jonathan Gruber, and Christopher Ody**, “More Insurers, Lower Premiums: Evidence from Initial Pricing in the Health Insurance Marketplaces,” *American Journal of Health Economics*, 2015, 1 (1), 53–81.
- Dixon, Josie, Derek King, and Martin Knapp**, “The Association Between CQC Ratings and Outcomes for Residents of Care Homes,” *Health Services and Delivery Research*, 2020, 8 (7).
- Dranove, David, Daniel Kessler, Mark McClellan, and Mark Satterthwaite**, “Is More Information Better? The Effects of “Report Cards” on Health Care Providers,” *Journal of Political Economy*, 2003, 111 (3), 555–588.
- Grabowski, David C**, “Recent Trends in State Nursing Home Payment Policies,” *Health Affairs*, 2004, 23, W4–363.
- , **Kelly A Aschbrenner, Valerie F Rome, and Stephen J Bartels**, “Quality of Mental Health Care for Nursing Home Residents: A Literature Review,” *Medical Care Research and Review*, 2008, 67 (6), 627–656.
- Harrington, Charlene, David Zimmerman, Sarita L Karon, James Robinson, and Patricia Beutel**, “Deficiencies in Care in Nursing Homes,” *Health Affairs*, 2000, 19 (2), 57–64.
- Jin, Ginger Zhe and Phillip Leslie**, “The Effect of Information on Product Quality: Evidence from Restaurant Hygiene Grade Cards,” *Quarterly Journal of Economics*, 2003, 118 (2), 409–451.

- Kolesár, Michal and Christoph Rothe**, “Inference in Regression Discontinuity Designs with a Discrete Running Variable,” *American Economic Review*, 2018, *108* (8), 2277–2304.
- Kolstad, Jonathan T**, “Information and Quality When Motivation Is Intrinsic: Evidence from Surgeon Report Cards,” *American Economic Review*, 2013, *103* (7), 2875–2910.
- Lee, David S**, “Randomized Experiments from Non-Random Selection in U.S. House Elections,” *Journal of Econometrics*, 2008, *142* (2), 675–697.
- MacKinnon, James G and Halbert White**, “Some Heteroskedasticity-Consistent Covariance Matrix Estimators with Improved Finite Sample Properties,” *Journal of Econometrics*, 1985, *29* (3), 305–325.
- Nuffield Trust**, “Care Quality Commission Ratings and Care Home Performance,” Technical Report, Nuffield Trust 2022.
- Rahman, Momotazur, Omar Galarraga, Jacqueline S Zinn, David C Grabowski, and Vincent Mor**, “The Effect of Certificate of Need Laws on Nursing Home Prices and Quality,” *Medical Care*, 2016, *54* (1), 85–92.
- Skills for Care**, “The State of the Adult Social Care Sector and Workforce in England,” Technical Report, Skills for Care 2023.
- The King’s Fund**, “Social Care 360,” Technical Report, The King’s Fund 2023.
- Werner, Rachel M and R Adams Dudley**, “The Effect of Pay-for-Performance in Hospitals: Lessons for Quality Improvement,” *Health Affairs*, 2012, *31* (9), 2002–2010.

A. Data Appendix

Data Sources. The CQC bulk ratings download is published monthly at <https://www.cqc.org.uk/about-us/transparency/using-cqc-data> under the Open Government Licence v3. Each file contains all active locations with their latest ratings, domain scores, publication dates, and provider information. The file format is ODS (OpenDocument Spreadsheet).

Sample Filters. Starting from 14,058 care homes in the October 2024 snapshot: (1) keep care homes only (“Care Home?” = Y); (2) keep location-level reports only (not provider-level aggregations); (3) exclude inherited ratings (ratings carried forward from a previous registration, which do not reflect a contemporaneous inspection); (4) require all five domain ratings to be non-missing for composite score construction. This yields 14,704 care homes in the analysis sample.

Composite Score Construction. Each domain rating is coded numerically: Outstanding = 1, Good = 2, Requires Improvement = 3, Inadequate = 4. The composite score is the unweighted sum of the five domain ratings (Safe + Effective + Caring + Responsive + Well-led), with range 5–20. The Inadequate threshold is set at composite ≥ 17 .

B. Standardized Effect Sizes

Table 5: Standardized Effect Sizes

Outcome	$\hat{\beta}$	SE	SD(Y)	SDE	SE(SDE)	Classification
<i>Panel A: Pooled</i>						
Closure (narrow BW)	0.152	0.083	0.317	0.480	0.261	Large positive
Closure (wider BW)	0.144	0.057	0.317	0.456	0.179	Large positive
Closure (diff. slopes)	0.199	0.078	0.317	0.628	0.245	Large positive
Closure (quadratic)	0.135	0.058	0.317	0.427	0.182	Large positive
<i>Panel B: Heterogeneous (by initial severity)</i>						
Near threshold (17–18)	0.108	0.082	0.317	0.339	0.260	Large positive
Far above (19–20)	-0.047	0.153	0.317	-0.150	0.483	Moderate negative

Notes: **Country:** United Kingdom. **Research question:** Does the CQC Inadequate rating, which triggers automatic Special Measures placement, cause care home closures beyond what underlying quality would predict? **Policy mechanism:** The Care Quality Commission assigns overall ratings based on a deterministic aggregation of five domain inspections; homes rated Inadequate overall enter Special Measures, a publicly announced regulatory escalation with mandatory six-month improvement deadlines and potential registration cancellation. **Outcome definition:** Binary indicator for care home deregistration (disappearance from the CQC active register) between October 2024 and March 2026. **Treatment:** Binary; composite inspection score at or above the Inadequate threshold (composite ≥ 17). **Data:** CQC bulk ratings download, October 2024 and March 2026 snapshots, care home locations only, $N = 14,704$. **Method:** Local linear regression with HC2 robust standard errors at the composite score threshold; varying bandwidths and polynomial orders. **Sample:** Care homes with complete five-domain ratings in the October 2024 CQC snapshot; excludes inherited ratings and provider-level reports. $SDE = \hat{\beta}/SD(Y)$ where $SD(Y)$ is the unconditional standard deviation of the closure indicator. Classification refers to magnitude, not statistical significance: Large ($|SDE| > 0.15$), Moderate (0.05–0.15), Small (0.005–0.05), Null (< 0.005).