

# Impact of accessing care at an advanced stage on mortality in PWH in France, 2002-2016

Potard V.<sup>1</sup>, Gassama M.<sup>1</sup>, Lanoy E.<sup>1</sup>, Abel S.<sup>2</sup>, Bani-Sadr F.<sup>3</sup>, Bregigeon S.<sup>4</sup>, Caby F.<sup>5</sup>, Denis B.<sup>6</sup>, de Truchis P.<sup>7</sup>, Martin-Blondel G.<sup>8</sup>, Piroth L.<sup>9</sup>, Ursenbach A.<sup>10</sup>, Costagliola D.<sup>1</sup>, Grabar S.<sup>1,11</sup>, for the ANRS CO4 FHDH

## BACKGROUND

Previous studies have shown the deleterious impact of access to care with an advanced HIV-disease on the mortality risk in people living with HIV (PWH).<sup>1,2</sup>

On a more recent period, we explored :

- The impact of access to care with an advanced HIV-disease on the mortality risk up to 5 years after the first access to care
- Whether availability of integrase strand transfer inhibitor (INSTI) in 2014 for ARV-naive PWH, led to a smaller impact

## METHODS

### Inclusion criteria

• **ARV-naive PWH** of at least 18 years of age, **included** in the French Hospital Database on HIV (ANRS CO4 FHDH) **between 2002 and 2016**

• At least one follow-up after the inclusion and one available CD4 cell count value within 30 days before inclusion and 15 days after if treated or 30 days if not

### Stages definition

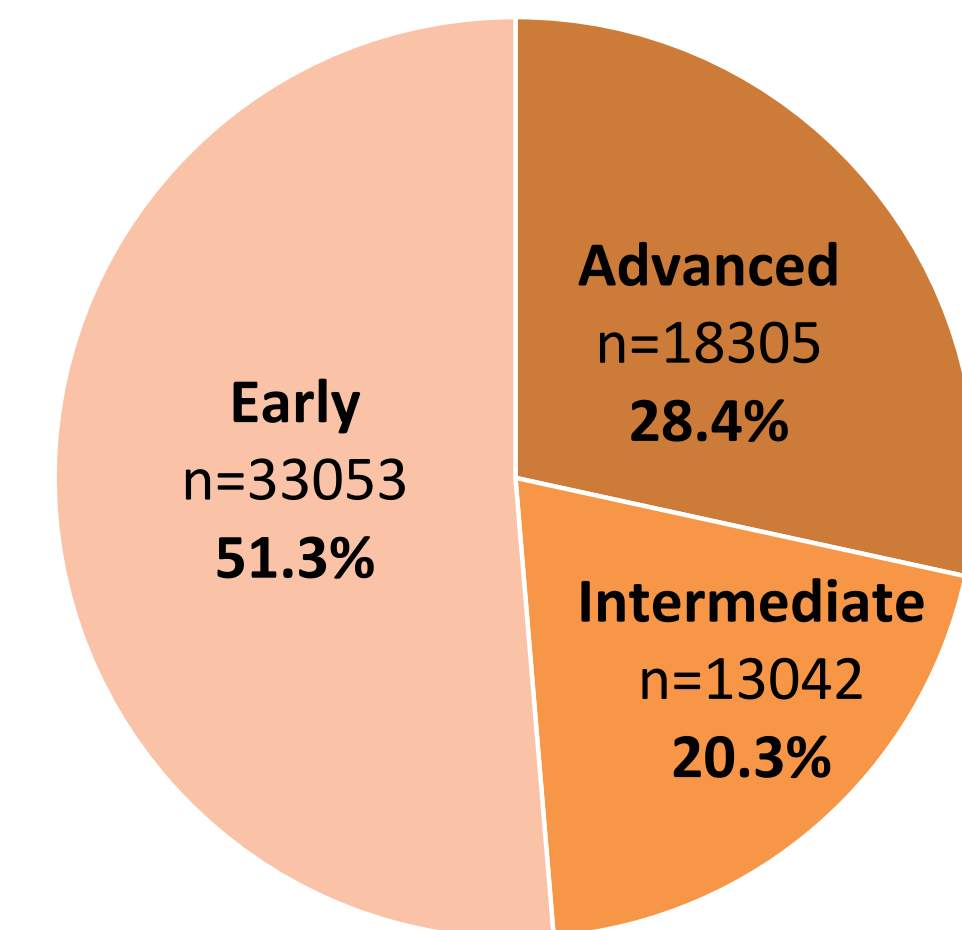
- **3 advanced stages:** AIDS, CD4 ≤50/mm<sup>3</sup> without AIDS, CD4 50-200/mm<sup>3</sup> without AIDS
- **Intermediate:** CD4 200-350/mm<sup>3</sup> without AIDS
- **Early:** Primary infection or CD4 ≥350/mm<sup>3</sup> without AIDS

### Statistical analysis

- **Analysed data 2002-2021** with a possible follow-up of at least 5 years
- Follow-up after access to care was categorized into 0 – 6, 6 – 12, 12 – 24, 24 – 48, 48 – 60 months
- The cumulative incidence of **death** was estimated **considering lost to follow-up ≥18 months as a competing event**
- The impact of the stage at first access to care on mortality risk was analyzed **by using Fine & Gray competing risk models**. Models were adjusted for age, gender, acquisition mode, region of origin, delay between diagnosis and access to care and period of access to care (2002-2013 vs 2014-2016)

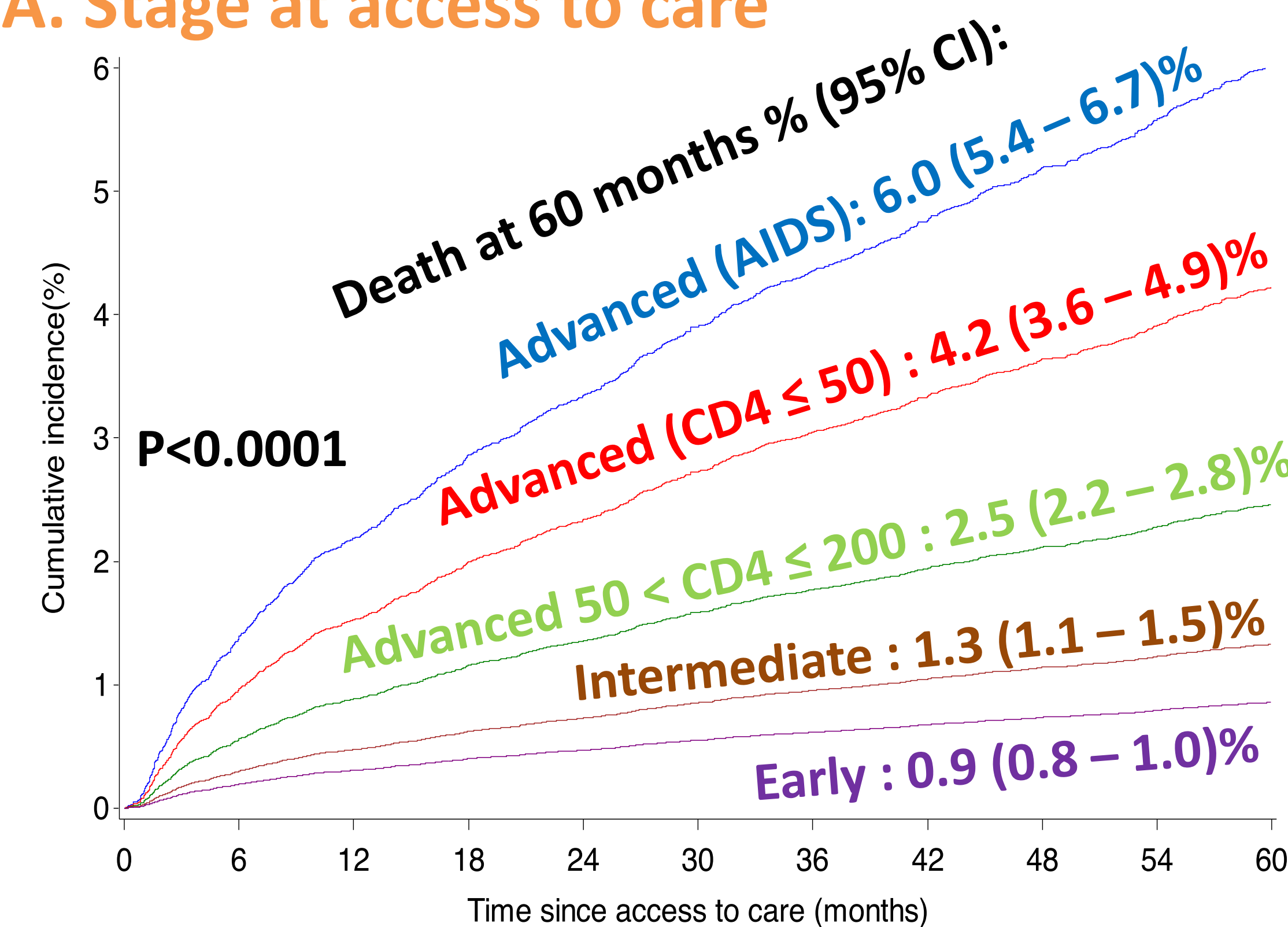
- Among the 64400 PWH included, 28.4% presented with an advanced HIV-disease (2002-2013: 28.8%; 2014-2016: 26.5 %)
- Compared to people with an early HIV-disease, those with AIDS had a very high risk of death in the first 6 months of follow-up, which remained significant 48-60 months after access to care (sdHR: 2.1 (95%CI: 1.3-3.3))
- After adjustment, the risk of death did not differ between 2002-2013 and 2014-2016

## RESULTS

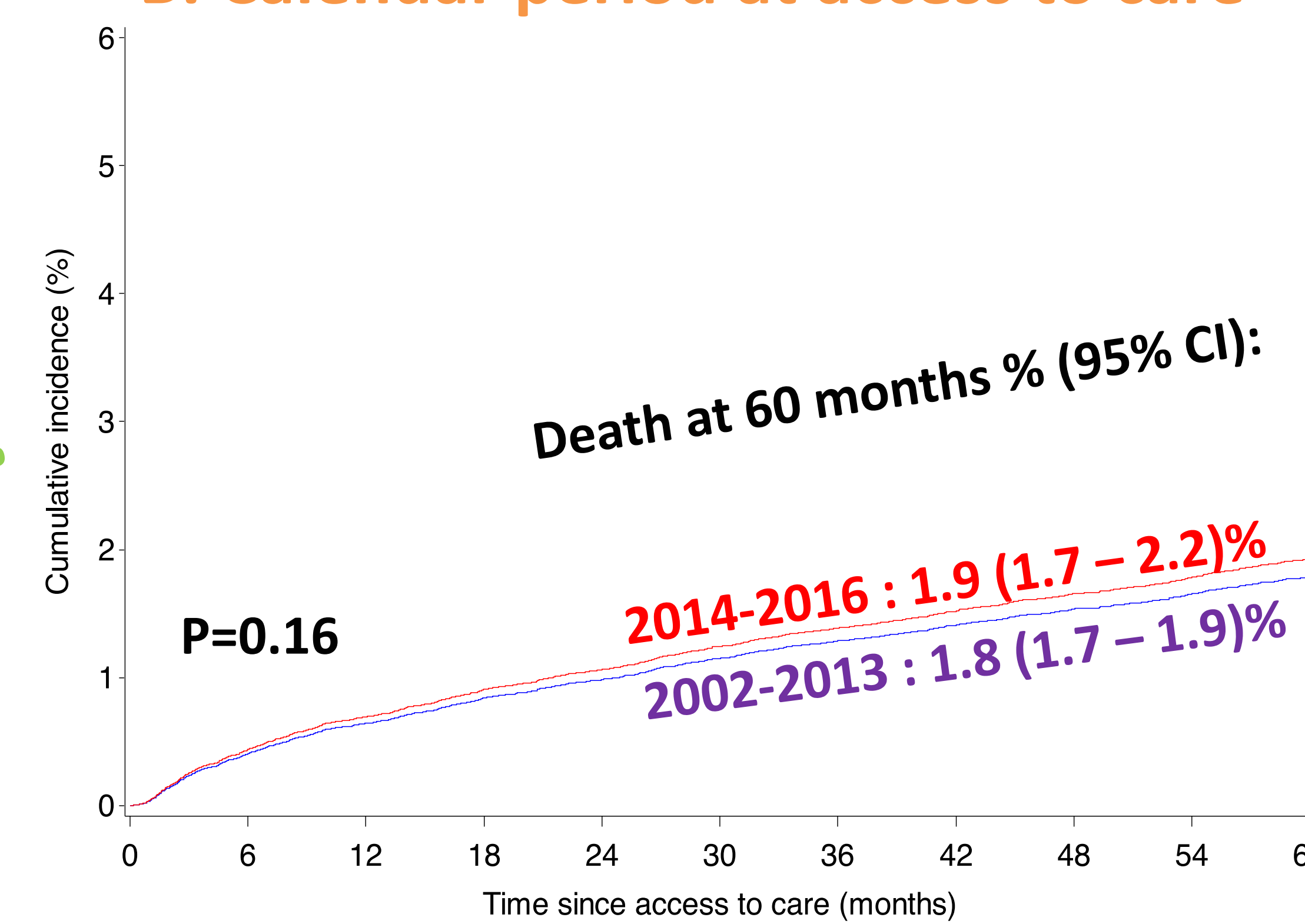


	Status at access to care		
	Advanced	Intermediate	Early
<b>Age (years)</b>			
Median (Q1 - Q3)	40 (33 – 48)	36 (29 – 44)	34 (28 – 43)
<b>Delay between HIV diagnostic and inclusion in FHDH (days)</b>			
Median (Q1 - Q3)	10 (0 – 42)	17 (4 – 68)	15 (5 – 55)
<b>Calendar period</b>			
2002-2013	15267 (28.8)	10880 (20.6)	26787 (50.6)
2014-2016	3038 (26.5)	2162 (18.9)	6266 (54.6)

### Cumulative incidence of death according to: A. Stage at access to care



### B. Calendar period at access to care



### Risk of death: adjusted sub-distribution hazard ratio (sdHR (CI95%))

	0-6 months	6-12 months	12-24 months	24-48 months	48-60 months
<b>Stages (vs early)</b>					
Advanced: AIDS	<b>18.4</b> 12.0-28.4	<b>11.0</b> 6.7-18.0	<b>3.8</b> 2.6-5.6	<b>2.7</b> 2.0-3.7	<b>2.1</b> 1.3-3.3
Advanced: CD4 ≤50/mm <sup>3</sup> , no AIDS	<b>10.0</b> 6.0-16.7	<b>6.9</b> 3.8-12.5	<b>3.5</b> 2.3-5.5	<b>2.6</b> 1.8-3.8	<b>1.5</b> 0.8-2.8
Advanced: CD4 50-200/mm <sup>3</sup> , no AIDS	<b>6.8</b> 4.3-10.8	<b>3.4</b> 1.9-5.9	<b>1.9</b> 1.3-2.8	<b>1.7</b> 1.2-2.3	<b>1.6</b> 1.0-2.5
Intermediate	<b>1.8</b> 1.0-3.2	<b>2.0</b> 1.1-3.6	<b>1.1</b> 0.7-1.8	<b>1.6</b> 1.1-2.1	<b>1.2</b> 0.8-1.8
<b>Calendar period</b>					
2014-2016 vs 2002-2013	<b>1.1</b> 0.8-1.5	<b>1.2</b> 0.8-1.8	<b>1.1</b> 0.8-1.6	<b>1.3</b> 1.0-1.7	<b>1.2</b> 0.8-1.8

## CONCLUSION

- In the most recent period, **advanced HIV infection still affects 26.5% of PWH newly accessing to care**
- **A delayed access to care remains associated with an increased risk of death** even after 48 months of follow-up.
- **No significant improvement in the risk of death** after introduction of INSTI for combined antiretroviral initiation in 2014
- **Early diagnosis** remains a major objective to **diminish the burden of death** in newly diagnosed PWH.

## REFERENCES

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## ACKNOWLEDGEMENTS

We are grateful to all ANRS CO4-FHDH participants and research assistants, without whom this work would not have been possible. Members of ANRS CO4 FHDH are listed at <https://anrs-co4.fhdh.fr/>



CROI • Denvers • March 3 to 6 2024

1. Sorbonne Université, INSERM, Institut Pierre Louis d'Epidémiologie et de Santé Publique, Paris, France, 2. PCCEI, Univ Montpellier, INSERM, EFS, Univ Antilles, Montpellier, France ; CIC Antilles Guyane, INSERM CIC1424, Fort-de-France, France ; CHU de Martinique, Service de maladies infectieuses et tropicales, Fort de France, France, 3. CHU de Reims, Service des Maladies Infectieuses et immunologie clinique, Reims, France, 4. Aix-Marseille Université, APHM, Hôpital Sainte Marguerite, Marseille, France, 5. Unité VIH-IST, Service d'Immuno-Hématologie, Hôpital Victor Dupouy, Argenteuil, France, 6. AP-HP Hôpitaux de Paris, Hôpital Saint-Louis, Services des maladies infectieuses et tropicales, Paris, France, 7. AP-HP Hôpital Raymond Poincaré, Université Paris-Saclay, Garches, France, 8. CHU Toulouse, Hôpital Purpan, Service des Maladies Infectieuses et Tropicales, Toulouse, France, 9. CHU Dijon, Service des Maladies Infectieuses, Inserm CIC 1432 Université de Bourgogne, Dijon, France, 10. CHU Strasbourg, Médecine interne, Service des Maladies Infectieuses et Tropicales, Strasbourg, France, 11. AP-HP, Hôpital St-Antoine, Paris, France