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The Impact of Early Case Management on Long Term Unemployment in Germany

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1 Introduction

Following the European Employment Strategy Labour Market Policy (LMP) in Germany was step by step re-orientated from re-active to more preventive action. The Federal Employment Services (BA) set "prevention and reduction of long term unemployment (LTU) as one of its business objectives.

While LMP instruments like job creation schemes or wage subsidies for hard to place people were traditionally available for LTU people, the preventive use of them was restricted to target groups (screening approach). Statistical information and research about risk factors related to inflow into LTU were available. But it was considered as being not sufficient for deciding on eligibility for programs. Experience, knowledge of local labour markets, intuition and discretion of frontline officers were considered the only references for selection of unemployed into programs.

2 Profiling Model Project 2000

Ideas of testing placement staff intuition about LTU risk and the capacity of statistic based decision rules about being at risk met in 1999 with EU DG Empl grants for innovative PES projects[1]. The BA and its Institute for Employment Research (IAB) took the chance to conceive a "profiling model project" to gain experience with early identification of (newly) unemployed at high risk of LTU and with early intervention through the assistance of Case-Managers (CM). Three local Employment Offices (LEO) volunteered to carry out a type of "checklist profiling" for newly registered unemployed and offer them additional job search assistance through private CM.

The project had three objectives:
1. To test the power of a statistical model in prediction of LTU risk and evaluate its reliability;
2. To test the power of judgement based prediction of risk by placement officers and evaluate its reliability;
3. To use both instruments for defining the LTU risk of new jobseekers and offer them individual case management (CM) to find out if CM has a significant impact in the prevention of LTU.

Profiling was carried out for all new entrants between 25 and 55 years of age in the three LEOs. New entrants are defined as people who had not been registered during the past 6 months and did not participate in policy measures during this time[2]. The target group for profiling seems to be composed of people with, at least, some employability prospects. Most come from jobs having been made redundant by their employers or from a fixed term contract which came to an end. Entrants to the labour market from professional education and re-entrants to the labour force are included.

During the experiment, the procedure was as follows: Each new entrant was invited for an intake interview. During the interview the placement officer discussed the labour market prospects of the client and took notes for the usual placement activities on qualification, job experience and area of job search. Statistical characteristics of the occupation, qualification level, work experience / LM (re-) entrant, sex, age, reason for job loss, immigrant and health problems were filled in into the profiling form. Together with the regional unemployment rate these data formed the input to the statistical model that produces a group specific LTU probability.

Placement officers, then, completed the form with their judgement on several items of clients' deficiencies affecting their job perspectives. The judgement was given for items of qualification, mobility, motivation and general deficiencies and classified by no / low / medium / high risk of LTU

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[1] Agreement VS/1999/0727

[2] Young people were excluded because an early prevention program (JUMP 2000) was available for this group. Elderly unemployed were excluded to avoid problems with transitory unemployment to retirement. The restriction to *new* entrants was imposed because recent clients often benefited from in depth assessment and training before where CM possibly would not contribute new aspects. People with obvious health problems and needing medical examination or rehabilitation were also left aside.

according to the staff's experience. The answers were taken as input to a judgement based decision rule to increase or lower the cut-off point for high LTU risk from the statistical model.

The data from profiling forms are formally evaluated by the statistical model combined with decision rules to integrate statistical and judgement scores. People scoring beyond a threshold are considered to be at high risk. This high-risk group again is split by random selection into two groups of equal size. One is the control group that will be treated in the employment offices according to normal rules. About 12.000 new job seekers underwent profiling and about 3100 were classified at high risk.

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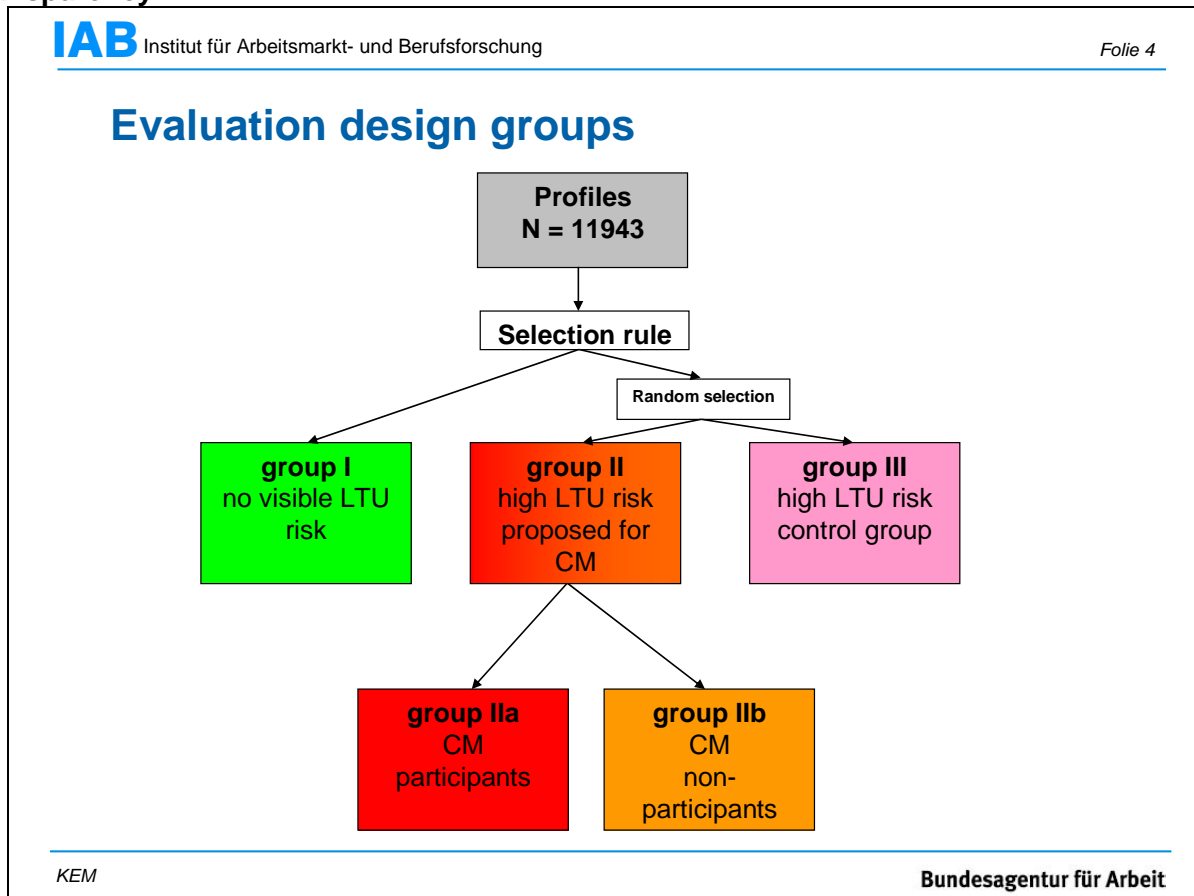
After one year the design of the study allowed to evaluate the accuracy of ex-ante prediction of LTU and the effect of CM intervention. By comparison between the low risk group and the control group we checked the reliability of the statistical and judgement based prediction. By re-estimation of the statistical model with the observed outcomes (ex-post adaptation), we gain insight for improvement of weighting risk factors. A second comparison between the CM group and the control group showed if CM had an impact on preventing LTU.

Participation in CM for the selected group was voluntary. The task of the CM was early in-depth assessment of strengths and weaknesses of the client not only in qualification related characteristics (as done in the placement services), but much more in job search related problems like application and self-presentation, motivation and attitudes, mobility or financial problems. The CMs were to propose steps to increase employability, either by adequate measures of the employment offices or by support in resolving individual problems. When needed, the CM should accompany job search and working in on the new job. The intention was to offer a holistic support to the unemployed right from the start before de-motivation by unsuccessful job search or low search efforts could distance the person from the labour market.

Some of the lessons learned shall be presented here.

3 Evaluation

From the trial, 11.932 profiles of jobseekers were available for evaluation. 26 p.c. were classified at risk which is somewhat higher than the inflow rate to LTU in that period. 12 p.c. had been previously assigned to the control group. From the jobseekers that were offered additional assistance through CM one half took part in the process.

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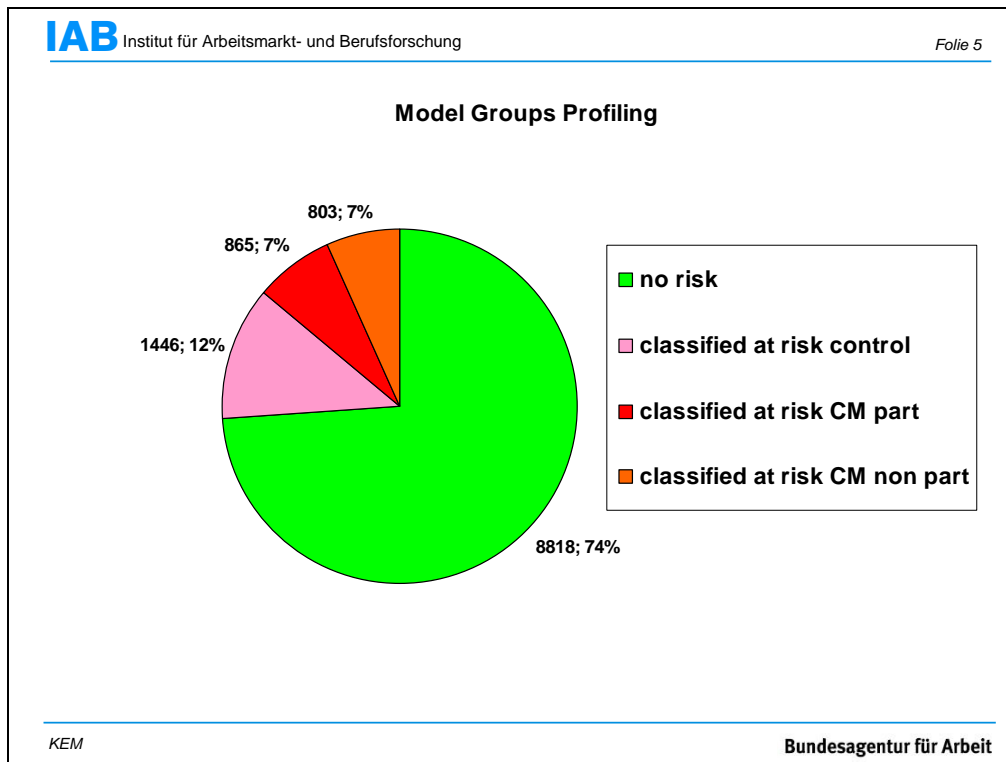
After one and two years after registration, we checked the LM status of the jobseekers whether they were
- still (continuously) unemployed,
- again unemployed after some interruption;
- on labour market programmes or in employment.

The ratio of people that are continuously unemployed for one year to the number of entrants the year before is known as the inflow rate to LTU. Participation in qualification programmes, temporary jobs or non-availability interrupts unemployment spells and does not account for the inflow rate (see transparency 3).

The LTU inflow rates for the four groups shows a clear difference between "no risk group" and the groups "at risk" from control and participant group. The non-participants, however, though considered at risk, did not fare worse than the "no risk group". The risk prediction was able to segment jobseekers in a workable way. Nevertheless ex-ante misclassification was high.

Although there was no obvious risk established after registration 15 p.c. of the "no risk" group became LTU, only slightly less than the average of all jobseekers. Either information during the profiling assessment was insufficient, which might be overcome by dynamic profiling and reclassification after, say, 6 months, or the extend of hazard that is working in the LM set them back in spite of their general employability.

Control group and CM participants, in fact, became LTU to a significantly higher share. So the risk assessment could draw attention to them. In a formal sense, 75 p.c. seem to be misclassified. However, most of exits were temporary for illness, change of residence or non availability.

The result for the CM participants is disappointing. The LTU inflow was slightly above the control group. There is no immediate impact of CM on LTU prevention visible. (Statistical composition of both groups is merely identical, but not explicitly controlled for in the graph.)

The low LTU inflow rate for the non-participants is striking. One reason was that for a number of them events in the near future like change of residence or ongoing promising job application had
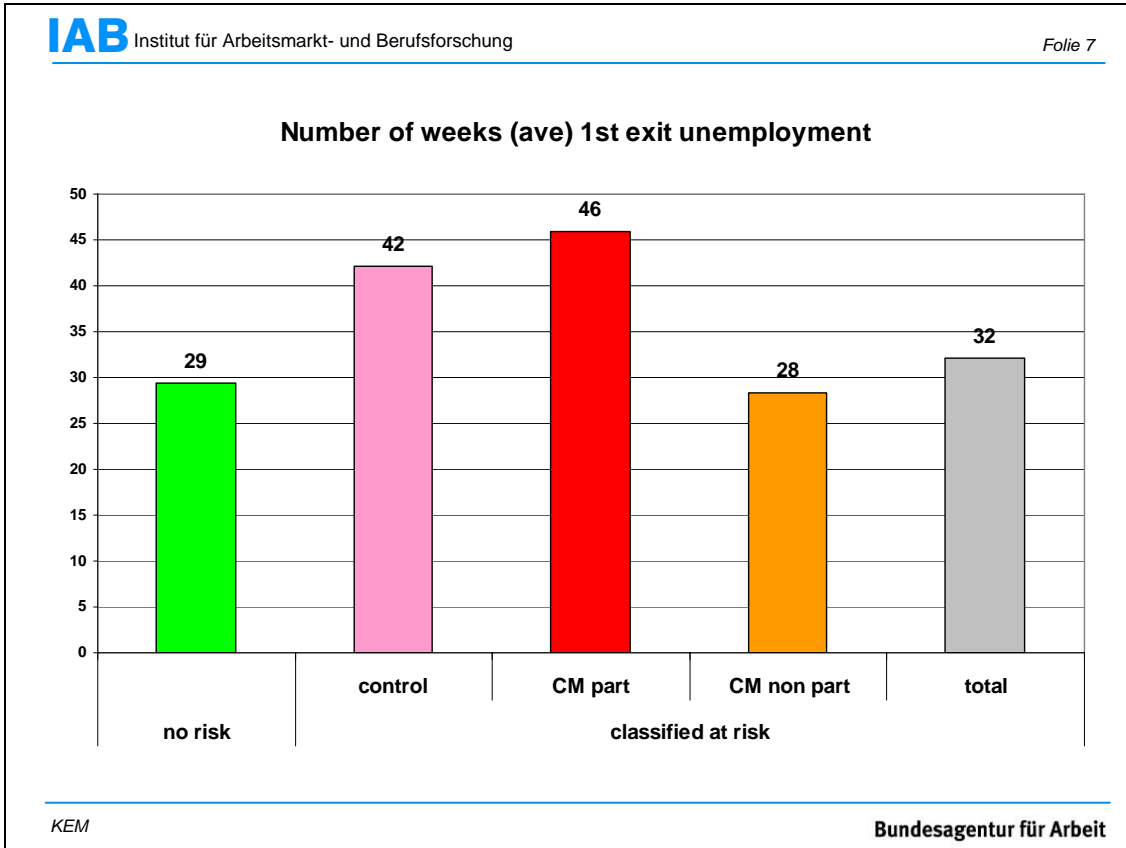
not sufficiently been considered in the ex-ante assignment for CM. In other cases a second interview showed non availability. The early offer of additional assistance brought about a sort of control effect and entrained de-registration.
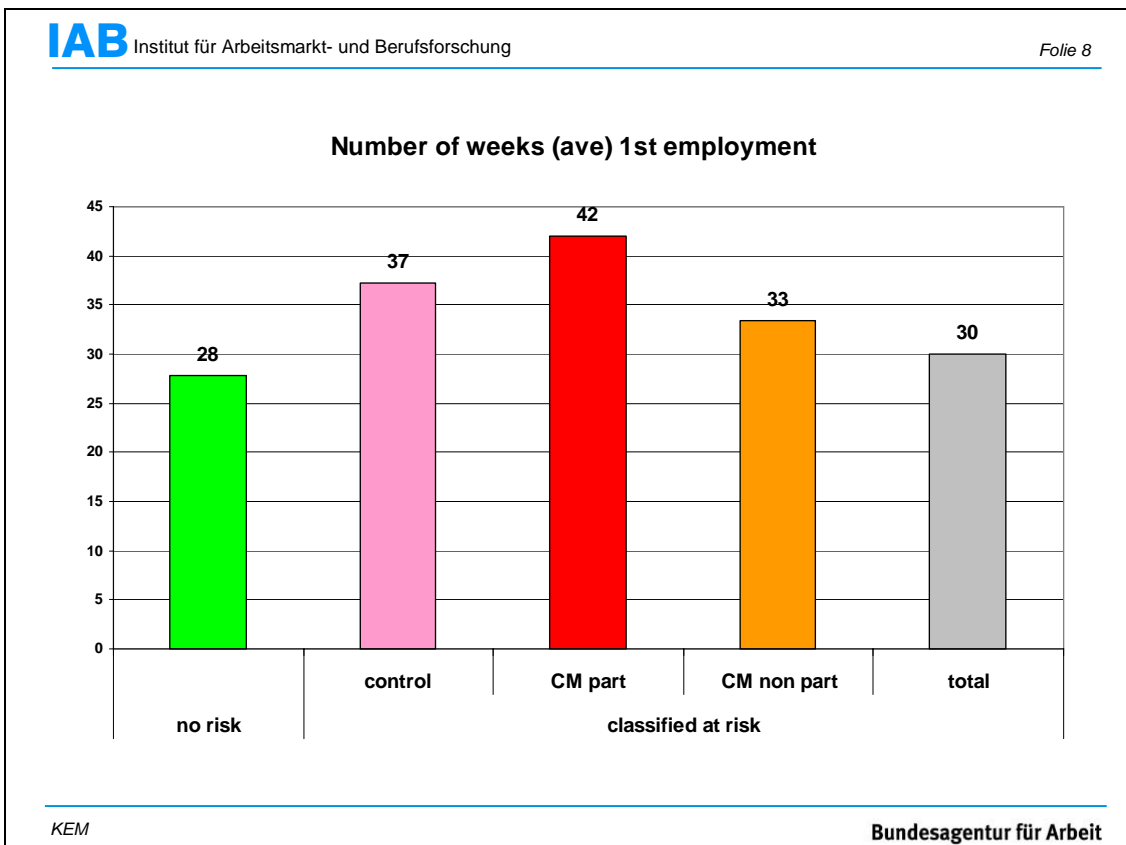
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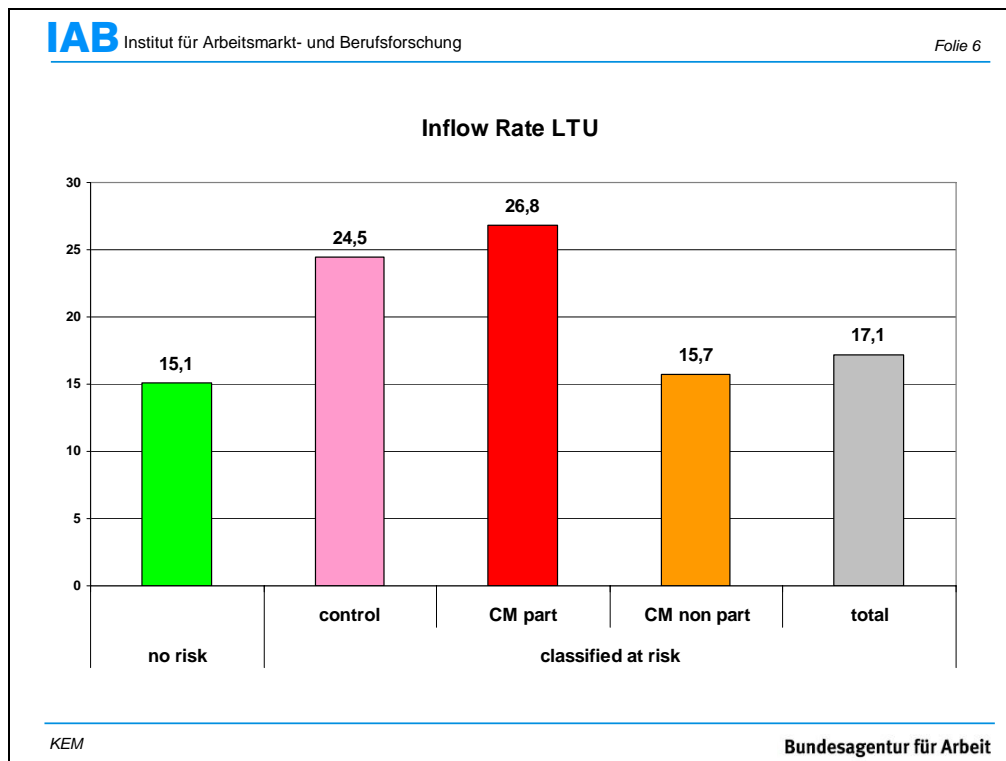
Additional indicators used in the evaluation showed similar results. Average duration of unemployment spell until first exit (transparency 4), average number of weeks until first employment (transparency 5) and (recurrent) unemployment after one or two years (transparency 6) did not lead to different conclusions.
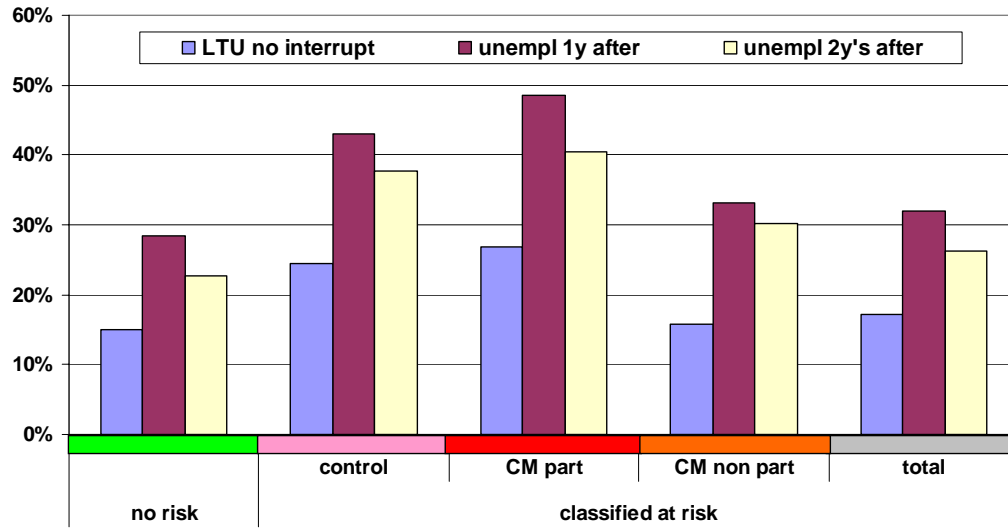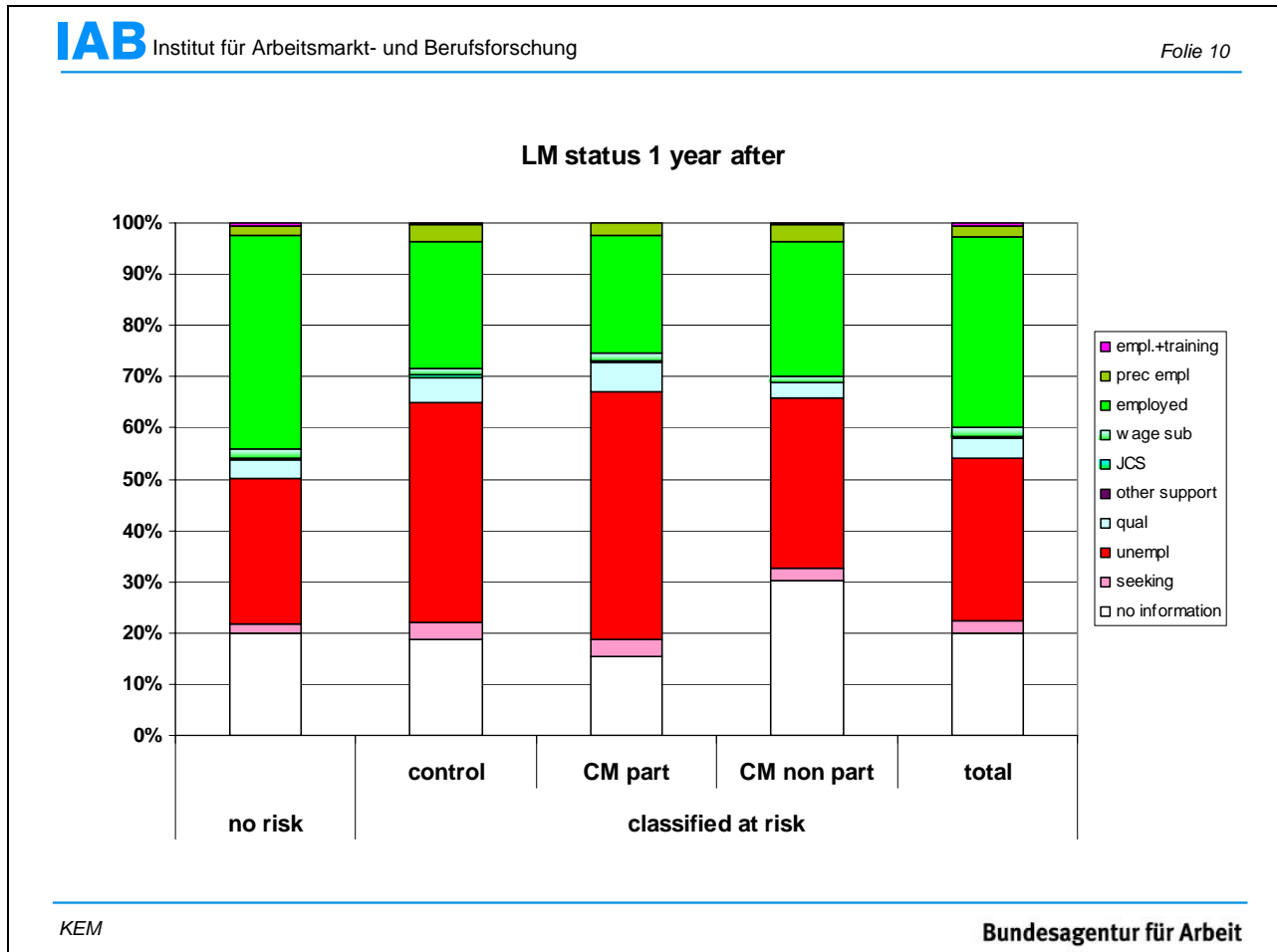
Transparency 4

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Number of weeks (ave) 1st exit unemployment

	no risk	control	CM part	CM non part	total
	29	42	46	28	32

classified at risk

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Transparency 5

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Number of weeks (ave) 1st employment

	no risk	control	CM part	CM non part	total
	28	37	42	33	30

classified at risk

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Transparency 6

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LTU measures

Legend: ☐ LTU no interrupt ☐ unempl 1y after ☐ unempl 2y's after

no risk | control | CM part | CM non part | total
classified at risk

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**Bundesagentur für Arbeit**

Transparency 7

Transparency 7 and 8 show the labour market status after one resp. two years after registration. Individual labour market status was matched from longitudinal files of registration, programme participation and employment records. No information may include self-employment, but is mainly considered as out of the labour force.

As main additional findings the graphs show a higher share (10 p.c. points) of non-participants for whom no information is available and a comparable share of people in employment as compared to the risk groups. Their early exit did not imply better employment perspectives.

After two years (transparency 8) the employment share of the CM was marginally larger than that of the control group.

Transparency 8
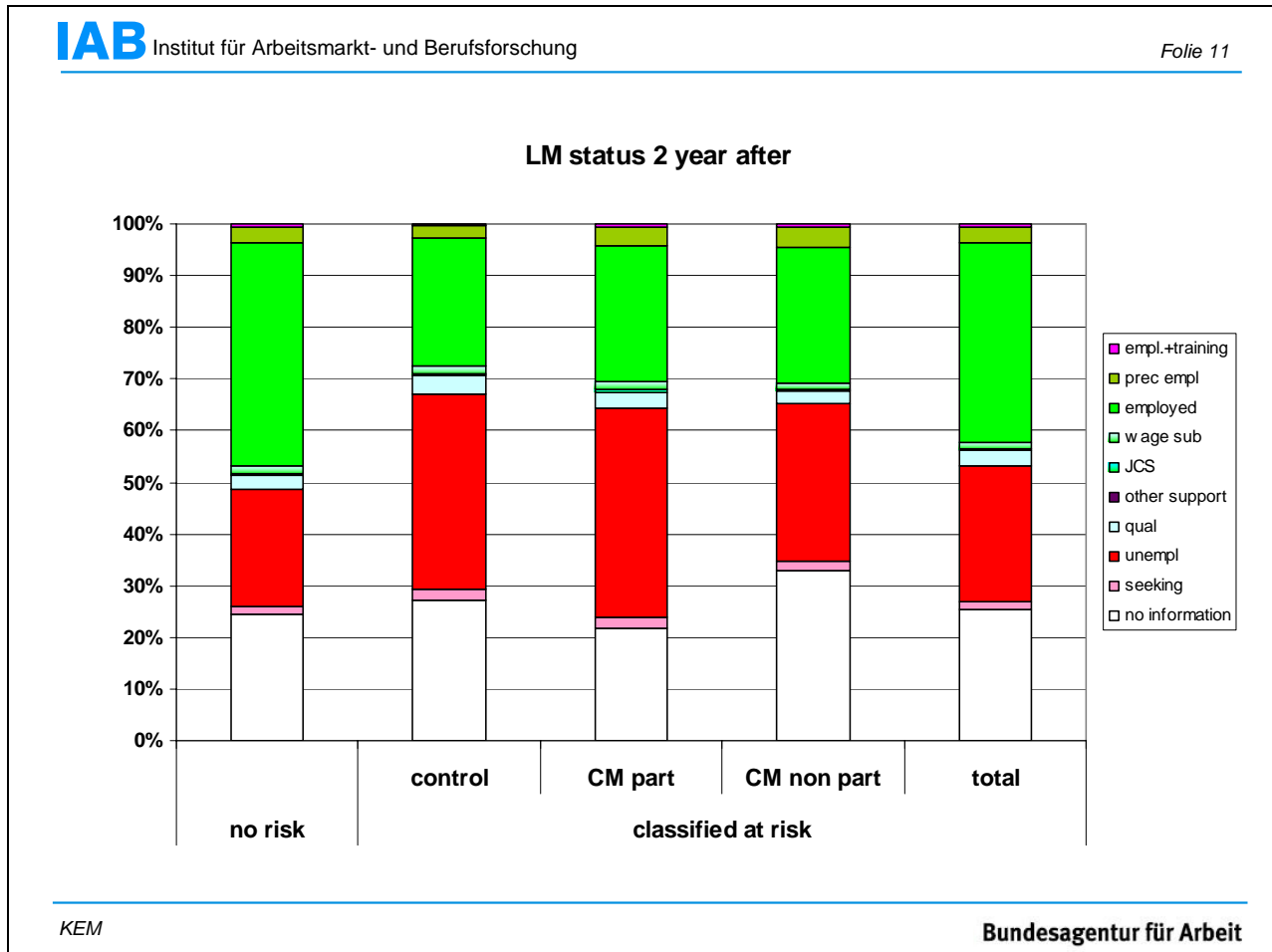
The evaluation results presented so far were based on descriptive indicators without detailed control for structural differences in the composition of groups except for the homogeneity between control group and the group of envisaged CM participants. Of course there was a high grade of difference between the no risk and high risk group concerning age and qualification. Additional selection occurred between CM participants and non participants (see transparency 10).

To control for the different composition of the groups and the related exit probabilities from unemployment we analysed the outflow from unemployment for the profiling cohorts in a survival model (Cox model) that allows for controlling differences in the group composition[3].

The survivor curves (transparency 9) are now corrected for group differences. They show the proportion of each group continuously unemployed after x months. The level at 12 months is the group specific inflow rate to LTU. Results do not really change.

During the first 9 months CM participants left unemployment slower than the control group but than caught up with them. Non participants left fastest during the first 6 months due to control of availability and selection for example by finding employment or changing residence. After 6 months their exit rates were lower than that of the other groups.

The slower exit of CM participants gives rise to the question of the intervention effect of the CM. One problem encountered during the test was the availability of counselling slots with the case managers. Waiting times of several weeks occurred until first in-depth interview when the streaming of new participants did not match with the capacities. Experience with LM programmes show that participation may lower search efforts ("Ashenfelter's dip") when participants concentrate on learning or wait for programme assistance. A similar observation seems to guide the envisaged Kansmeter changes in The Netherlands (see presentation by Manon Fretz).

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[3] Control variables: sex, age, qualification level, duration of previous employment spell, nationality, health status, LM re-entrant.

The high exit rates for all groups during the first months of unemployment also confirms doubts about early intervention strategies when real LM chances have not really been tested.
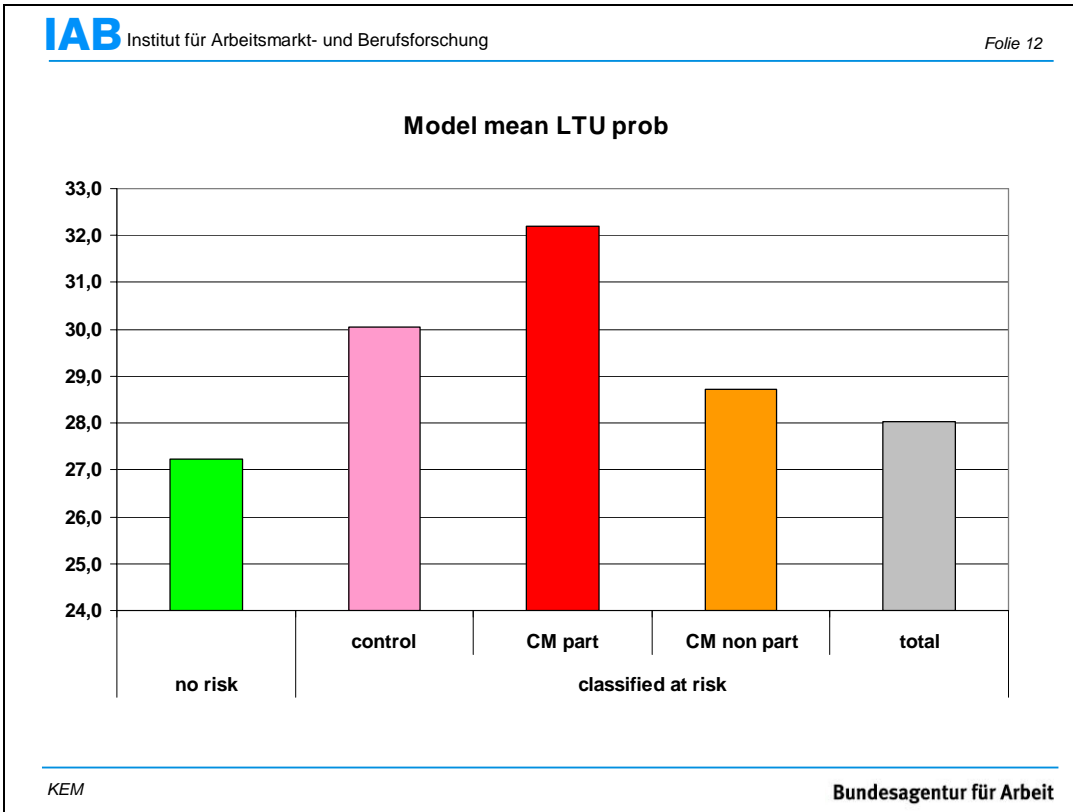
Transparency 9
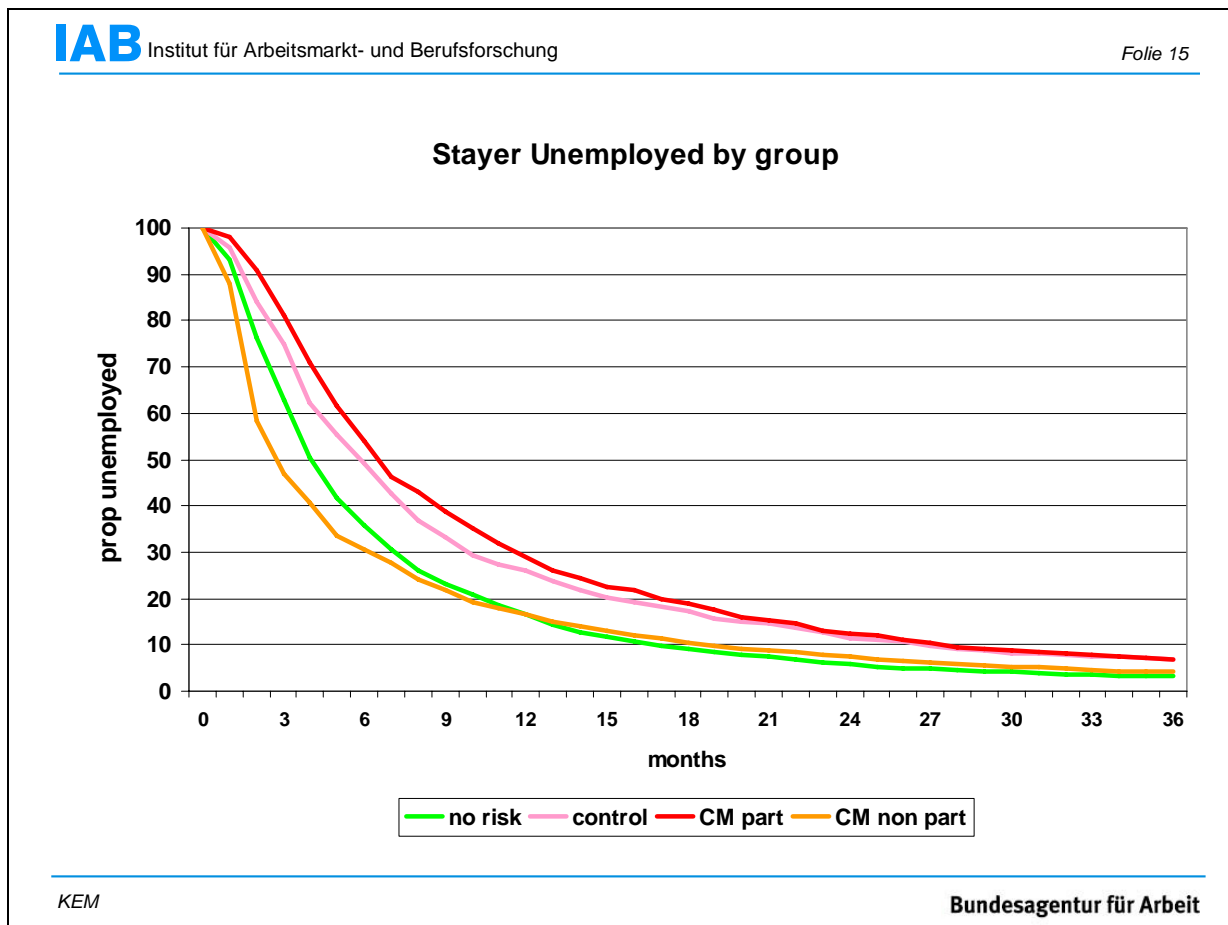
The decision rule for „high risk" in our test was a combination of a statistical model and adviser assessment based on the checklist. To analyse the group assignment we consider the indicated risk from both sources separately.

Transparency 10 shows that the statistical model differentiates the LTU probability within the design groups, an indication for heterogeneity between the risk groups. This heterogeneity has to be analysed and controlled for in further analysis.
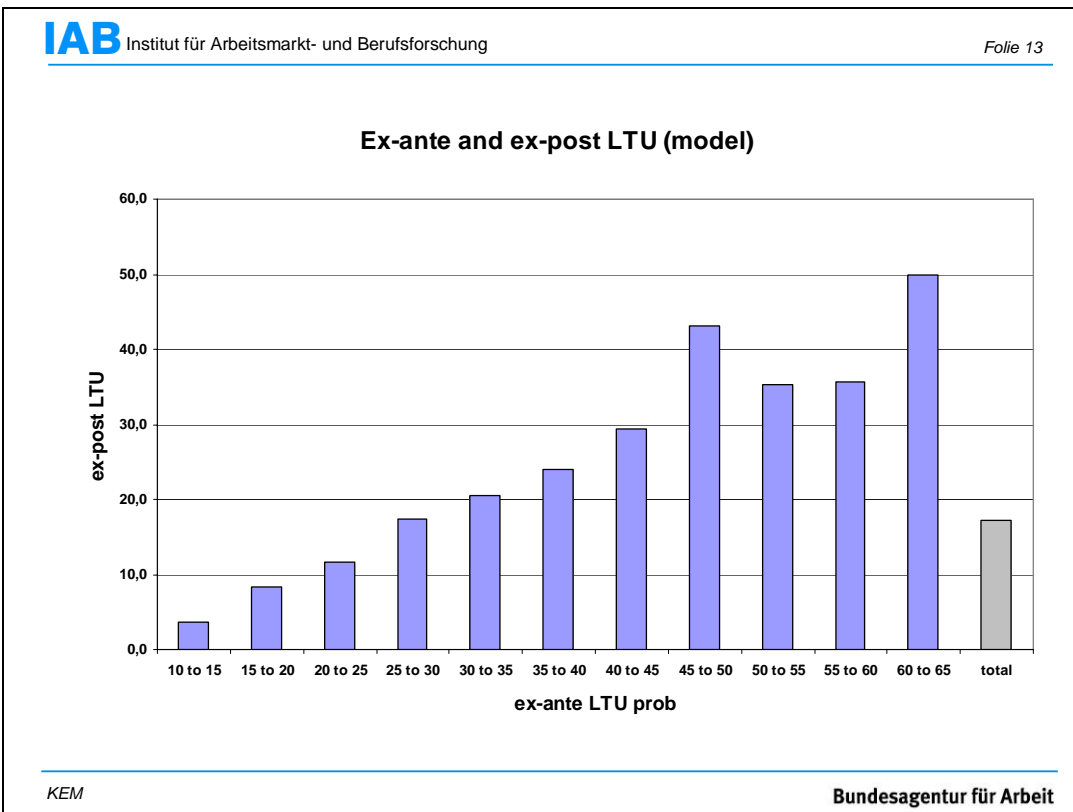
Transparency 11 compares LTU probability calculated from the model ex-ante with the observed LTU inflow rate. It shows a clear correlation between prediction and outcome. By increasing the cut-off point for high risk it seems possible to reduce misclassification (see similar results in the presentation of Robert Lipp, Australia). Another improvement could be to replace the binary decision by a more differentiated one (traffic light or like the Job-Barometer in Denmark, see presentation of Glynstup and Rosholm).

A similar correlation between ex-ante risk assessment by advisers and observed LTU inflow is shown in transparency 12. The given categories of low, mean and high, however, only allow for a less differentiated prediction. Jobseekers with an assessment of "no risk" became more frequent LTU than those at "low risk". We attribute this effect to the little training we were able to provide in the profiling test and some ambiguity about the meaning of the category "no risk" which was obviously also tagged as "not enough information for judgement".
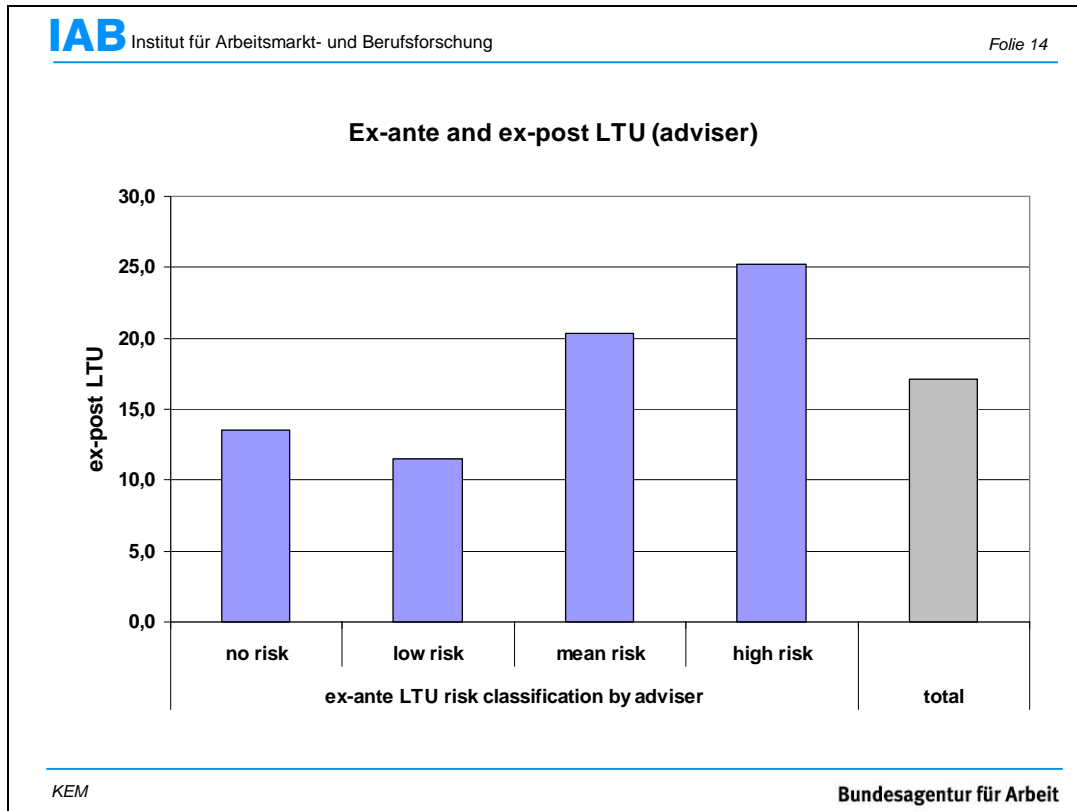
Transparency 10

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Model mean LTU prob

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Transparency 11

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Ex-ante and ex-post LTU (model)

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Transparency 12

4 Lessons learned

The test of profiling brought fruitful insight for the further development of tools and approaches in the efforts to improve services. The checklist of the test was taken as a reference when early profiling was enforced by German law in 2002 4.

The test showed that risk assessment by advisers as well as of a statistical model had some predictive power to attract attention to groups of jobseekers more likely to become LTU. Nevertheless, individual risk prediction is risky by itself, because it is associated with misclassification. Some misclassification can be overcome by a more thorough profiling than was possible within the restricted approach of the test. Dynamic profiling, that is the re-assessment after defined time intervals, should correct risk evaluation regularly to take up new information about job search experience.

A difference between ex-ante risk assessment and ex-post outcome, however, shall always exist. Finding or missing the right job is always a matter of chance and hazard in the LM. LM policy by itself aims at making bad risk predictions not come true.

In the test we were not able to produce a measurable preventive effect on LTU. That does not mean that preventive action is useless. It does not mean that the case managers did not do a good job in counselling and working out a job search project with the jobseekers. But it puts a question mark behind expectations of significantly shortening unemployment duration or cut down on benefit expenditure. Training, for example, as an investment in human capital takes time and brings it returns, hopefully, after longer periods.

The test also showed shortcomings in the way how profiling and early assistance offers were implemented in the LEOs. The profiling exercise was an additional task for advisers who did not know about the background segmentation of customers and should not change their work procedures to favour or disfavour one group or another. So the profiling outcome during the test had little impact inside the LEOs. Customer streaming also was a problem between profiling and

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4 Job-AQTIV-Gesetz 9.11.2001.

case manager counselling and between customer needs, established with case managers and availability of programmes.

Meanwhile profiling and customer segmentation are introduced in the LEOs with organisational reforms not yet completed. New evaluations shall analyse the impacts of the reforms.

Reference

Rudolph, Helmut; Müntnich, Michael (2001): Profiling" zur Vermeidung von Langzeitarbeitslosigkeit. Mitteilungen aus der Arbeitsmarkt- und Berufsforschung No.4 / 2001, p.530-553. http://doku.iab.de/mittab/2001/2001_4_MittAB_Rudolph_Muentnich.pdf